



Spectra BlackPearl Nearline Gateway

DS3 API Reference



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Revision History

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N	November 2020	Updated for BlackPearl 5.2 release.
O	August 2021	Updated for BlackPearl 5.3 release.
P	January 2022	Updated for BlackPearl 5.4.1 release.
Q	April 2023	Updated for BlackPearl 5.6 release.

Notes:

- To make sure you have the most current version of this guide check the Spectra Logic Technical Support portal at <https://support.spectralogic.com/documentation/user-guides/>.
- To make sure you have the release notes for the most current version of the BlackPearl software, check the Spectra Logic Technical Support portal at <https://support.spectralogic.com/documentation/release-notes/>.

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ABOUT THIS REFERENCE

This reference describes the DS3 API, which is a data transport and communication interface that allows software clients to direct and manage bulk storage read or write operations of data objects. The first implementation supports bulk object storage operations with tape.

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INTENDED AUDIENCE

This API reference is intended for software engineers or application developers who need to understand the client interface of the DS3 RESTful protocol and who want to transfer data to and from the Spectra® BlackPearl® Nearline Gateway. The reference assumes a working knowledge of using a standard programming language such as C# (.NET), Java®, or Python®, as well as an understanding of XML, HTTP, and Amazon® S3™ (Simple Storage Service).

RELATED INFORMATION

Spectra BlackPearl Nearline Gateway

The following documents related to the BlackPearl gateway are available on the Support Portal website at support.spectralogic.com, and from the Documentation screen on the BlackPearl user interface.

- The *Spectra BlackPearl Nearline Gateway User Guide* provides detailed information about configuring, using, and maintaining your BlackPearl gateway.
- The *Spectra BlackPearl Nearline Gateway Site Preparation Guide* provides important information that you should know before installing a BlackPearl gateway in your storage environment.
- The *Spectra BlackPearl Nearline Gateway RackMount Installation Guide* provides detailed instructions for installing BlackPearl Gen1 S or V Series chassis in a standard rack.
- The *Spectra BlackPearl Network Setup Tips* document provides helpful instructions for troubleshooting common connectivity problems.
- The *Spectra BlackPearl HotPair Installation & Configuration Guide* document provides detailed information on installing and using a the BlackPearl gateway in a HotPair configuration.

The following documents are available after logging into your Support portal account at: support.spectralogic.com.

- The *Spectra BlackPearl Release Notes and Documentation Updates* provide the most up-to-date information about the BlackPearl gateway, including information about the latest software releases and documentation updates.
- The *Spectra 12- & 36-Drive Chassis Boot Drive Replacement Guide* provides instructions for replacing a failed boot drive in the BlackPearl gateway.
- The *Spectra 12-, 36- & 45-Drive Chassis Drive Replacement Guide* provides instructions for replacing a failed data drive after the BlackPearl gateway is installed.
- The *Spectra 12-, 36- & 45-Drive Chassis Fan Replacement Guide* provides instructions for replacing a failed fan in the BlackPearl gateway.
- The *Spectra 12-, 36- & 45-Drive Chassis Power Supply Replacement Guide* provides instructions for replacing a failed power supply after the BlackPearl gateway is installed.
- The *Spectra 12-Drive Chassis HBA Replacement Guide* and *Spectra 36-Drive Chassis HBA Replacement Guide* provide instructions for replacing a failed HBA in the BlackPearl gateway.
- The *Spectra 96-Drive Chassis Drive Replacement Guide* provides instructions for replacing a failed data drive in the 96-bay expansion node.
- The *Spectra 96-Drive Chassis Fan Replacement Guide* provides instructions for replacing a failed fan in the 96-bay expansion node.
- The *Spectra 96-Drive Chassis Power Supply Replacement Guide* provides instructions for replacing a failed power supply in the 96-bay expansion node.
- The *Spectra 96-Drive Chassis I/O Module Replacement Guide* provides instructions for replacing a failed I/O module in the 96-bay expansion node.
- The *Spectra 107-Bay Expansion Node Part Replacement Guide* provides instructions for replacing a failed I/O module in the 96-bay expansion node.

Amazon S3 Interface

The following documents, from Amazon™, provide detailed information about the Amazon S3 operations supported by the DS3 interface.

- The *Amazon Simple Storage Service Getting Started Guide* provides an introduction and simple example of how to use Amazon S3, along with tips and links to other resources.
- The *Amazon Simple Storage Service API Reference* provides detailed information about all Amazon S3 API operations. It also provides sample requests, responses, and errors.

Typographical Conventions

This document uses the following conventions to highlight important information:

**WARNING**

Read text marked by the “Warning” icon for information you must know to avoid personal injury.

**CAUTION**

Read text marked by the “Caution” icon for information you must know to avoid damaging the library, the tape drives, or losing data.

**IMPORTANT**

Read text marked by the “Important” icon for information that helps you complete a procedure or avoid extra steps.

Note: Read text marked with “Note” for additional information or suggestions about the current topic.

ONLINE FORUM

Need help with Spectra Logic’s DS3 software development kits or the DS3 API? Post your question at the Spectra Logic DS3-SDK discussion forum located at:
<https://developer.spectralogic.com/forums>.

CHAPTER 1 - OVERVIEW

This chapter provides an overview of DS3, request syntax, and this guide.

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Wild Card Syntax	30
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DS3 OVERVIEW

The Spectra BlackPearl Nearline Gateway allows data to move seamlessly into deep storage in a way not previously possible. DS3 is the first native REST-based interface to deep storage which enables easy archiving of large amounts of bulk data. It enables users to deploy tape, nearline disk, and online disk storage that is cost effective, easy to manage, and scalable to exabytes of data.

DS3 utilizes the standard Amazon S3 operations plus additional operations specifically designed to optimize the transport of data objects to and from deep storage. The additional operations define the job so that the BlackPearl gateway interacts with the objects efficiently and define the data policy to customize where and for how long specific data is stored.

The first of these additional operations is called START BULK PUT. It is an HTTP PUT operation that provides the BlackPearl gateway with information about the objects that the client wants to send as a single job for storing on tape. The [Create Bulk PUT](#) command is sent with a payload that is made up of a list of object names and corresponding object sizes. This information allows the BlackPearl gateway to plan the initial storage of the objects in its cache, and how it will store the data on tape. The response to the [Create Bulk PUT](#) command is a specifically ordered list of how the BlackPearl gateway wants those files (objects) sent. See [Processing a Bulk PUT Job on page 149](#) and [Create Bulk PUT on page 172](#) for details.

The second command is called [Create Bulk GET](#). The [Create Bulk GET](#) command is actually an HTTP PUT command because it too contains a payload for the BlackPearl gateway. This payload is a list of objects that the client wants to get from the BlackPearl gateway. It is not necessary for the request payload to contain the size of the files because the BlackPearl gateway already knows the sizes of the objects (files). The response to the request is again an ordered list of the objects and information about the objects, including if they are already in the cache and ready to be retrieved from cache by a GET command.

Knowing the files that the client wants to retrieve, the BlackPearl gateway can make the best use of its resources in retrieving the objects. For example, if the list of objects spans across four different tapes and there are four tape drives available, those four tapes can all be loaded into drives and the objects can be read back in parallel, greatly improving the speed at which the client can get all of the objects. Without the [Create Bulk GET](#) request, the client would be asking the BlackPearl gateway for those objects in a less efficient manner. See [Processing a Bulk GET Job on page 148](#) and [Create Bulk GET on page 165](#) for details.

Storing large amounts of bulk data on tape has historically presented challenges. DS3 addresses these challenges:

- Tape drives are sequential block storage devices, with data laid out in a sequential manner along the full length of the tape. This makes it inefficient to retrieve data out of order. DS3 plans and queues a large amount of data to be efficiently written to tape; it logically groups data on tape in a way that reflects how the client is likely to read it back.
- Because of the mechanical nature of the tape media and drives, tape drives demand a large amount of data to be available, via a fast connection. When data is not efficiently streamed for the tape drives to write (due to slow data buffering or a slow connection to the drive), the result is poor write performance. This poor performance is due to a phenomenon referred to as "shoe-shining". When a drive is sent a small amount of data, it writes the data and then is forced to stop. Because the tape cannot stop instantaneously, the drive overshoots a small amount and the tape is not in position for the next write operation. To compensate, the tape drive rewinds to get back to the correct position for the next write. If the next write also has a small amount of data, then the drive writes the next portion and again stops, overshoots, and rewinds, causing a back and forth "shoe-shining" like action. DS3 caches data on the Spectra BlackPearl Nearline Gateway before starting the transfer to tape, which prevents the shoe-shining behavior from occurring.
- Classically, different tape storage devices wrote data to tape in unique ways, locking you into a proprietary and single vendor solution to retrieve previously written data. DS3 writes data to tape using the open source Linear Tape File System[®] (LTFS). With LTFS, data is always accessible with any LTFS enabled system.

ISSUING COMMANDS

A standard programming language such as C# (.NET), Java, or Python can be used to send a series of DS3 commands to the library. In addition to sending the DS3 commands, the programs can parse the data that the library returns as the command response and interpret any output generated by the command.

COMMAND SYNTAX

All of the DS3 commands use standard HTTP URL structure. The general syntax for a DS3 command is:

```
Request_Type http[s]://{datapath DNS name}/[_rest_]/{rest domain}/
[item specification]?[parameter 1]={value}&[parameter 2]={value}&...&
[parameter n]={value}
```

where:

- *Request_Type* = The HTTP request type (DELETE, GET, HEAD, POST, PUT)
- *{datapath DNS name}* = The DNS name or IP address for the Spectra BlackPearl Nearline Gateway.
- *[_rest_]* = Indicates that the operation is a DS3-style request.
- *[{rest domain}]* = The type of item that is acted upon by the request, for example, object, bucket, job.
- *[{item specification}]* = The specification for the specific item that is acted upon by the request.
- *[{parameter 1}]* through *[{parameter n}]* = Parameters whose values further define how the library responds to the request.

Notes:

- The first parameter must be separated from the base URL by a question mark (?) and from any additional parameters by an ampersand (&).
- To set a parameter to null use *&{parameter n}=&* or *{parameter n}&*
- DS3 only supports the "path-style" bucket specification, not the "virtual-hosted-style".

This reference uses the following conventions for describing the syntax and command response for each command:

- Optional parameters are shown in square brackets ([]).
- Variables in the command syntax are shown as {variable}. **Do not include the bracket characters ({ }) when you type variables.**

WILD CARD SYNTAX

For DS3-style GET requests (with *"/_rest_/"* in the syntax), wild cards are allowed in string parameters.

- Use *"_"* for a single character.
- Use *"%"* for zero or more characters.

COMMON REQUEST HEADER ELEMENTS

The DS3 API uses Amazon S3 Signature Version 2 headers to pass authentication information. See [Signing and Authenticating REST Requests](#) for more information.

The following table describes headers that can be used by various requests.

Note: CRC_32, MD5, and SHA-512 perform the best for their corresponding cryptographic strengths on the BlackPearl gateway.

Header Name	Description
Content-CRC32	The base64 encoded CRC32 checksum described in RFC 1952. This is limited to about 800 MB/sec per data stream.
Content-CRC32C	The base64 encoded CRC32C checksum described in RFC 3720 section B4. This is limited to about 300 MB/sec per data stream.
Content-MD5	The base64 encoded 128 bit MD5 cryptographic checksum. This is limited to about 200 MB/sec per data stream.
Content-SHA256	The base64 encoded 256 bit SHA cryptographic checksum. This is limited to about 75 MB/sec per data stream.
Content-SHA512	The base64 encoded 512 bit SHA cryptographic checksum. This is limited to about 100 MB/sec per data stream.
Naming-Convention	The naming convention for the response tags. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE Default: CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE

USING THIS COMMAND REFERENCE

This reference has been divided into seven sections.

- The first section describes the [Amazon S3 Operations](#) operations supported by the BlackPearl gateway.
- The second section describes [DS3 Bucket, Object, and Job Operations](#). These along with the Amazon S3 operations, are the most commonly used operations for transferring data.
- The third section describes [Access Control Operations](#). Use these operations to provide users and groups of users with permissions to perform different operations on the BlackPearl gateway.

- The fourth section describes [Advanced Bucket Management Operations](#). These operations let configure where and for how long data is stored.
- The fifth section describes [Hardware Operations](#) that let you interact with the tape libraries and disk storage.
- The sixth section describes [Notification Operations](#). The BlackPearl gateway can notify users of job and hardware status.
- The seventh section describes [Miscellaneous Operations](#) that are available to provide information and make rarely needed changes to the BlackPearl configuration.

Within each chapter, the requests are arranged alphabetically by the description of the action.

For each request, the chapter provides a description, the request syntax and parameters, and response parameters. It also provides an example of the command usage and the response.

VOLUME A - AMAZON S3 OPERATIONS

This section describes the standard Amazon S3 operations supported by DS3.

- [Amazon S3 Bucket Operations on page 34](#)
- [Amazon S3 Object Operations on page 44](#)
- [Amazon S3 Multipart Object Operations on page 54](#)

CHAPTER 2 - AMAZON S3 BUCKET OPERATIONS

This section describes common operations performed on buckets. A bucket represents a collection of related objects with common data policy settings. Objects in buckets are completely independent of each other.

Buckets can be stored in various storage domains. When additional physical data stores are needed for a bucket, another tape or disk pool is assigned to the storage domain.

Create Bucket (Put Bucket)	34
Delete Bucket	36
Get Bucket (List Objects)	37
Get Buckets (Get Service)	41
Head Bucket	43

CREATE BUCKET (PUT BUCKET)

Description

Create a bucket. The default data policy for the user creating the bucket is assigned to the bucket. If a default data policy cannot be determined, the operation fails. No media are initially allotted. This is an Amazon S3 compatible operation.

When creating a bucket for use with a data policy including an Amazon S3 or Microsoft Azure replication target, the bucket name must adhere to the cloud target naming requirements.



IMPORTANT

- For **BlackPearl software version 3.5.2 or earlier**, the BlackPearl gateway changes bucket names with upper case letters to all lower case letters when needed. If you are using bucket names that only differ by case, the buckets are combined on the cloud target causing possible data collision and bucket ownership/permission problems.
- For **BlueScale software version 4.0 or later**, if the bucket name is incompatible with the naming requirements of the cloud target provider, bucket creation fails and an error is returned.

Notes:

- The bucket name cannot contain a colon (:), forward slash (/), or space.
- The bucket name cannot exceed 255 characters.

See [Put Bucket](#) for Amazon S3 operation details .

Also see [Create Bucket - DS3](#) on page 70.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/{bucket_name}/
```

`{bucket_name}` must be unique on the BlackPearl gateway.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK (success)
- 400: Bad Request (data policy cannot be determined, bucket name is not allowed)
- 403: Forbidden (user does not have permission for the data policy, bucket name is reserved)
- 409: Conflict (bucket already exists)

Example

Sample Request

This request creates the bucket named "bucket1".

```
PUT http://blackpearl-hostname/bucket1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

DELETE BUCKET

Description

Delete a bucket. All objects contained in the bucket must be deleted prior to deleting a bucket. For tape partitions, the bucket is marked for deletion, but may not be deleted from tape until the space is needed.

See [Delete Bucket](#) for Amazon S3 operation details .

Also see [Delete Bucket - DS3 on page 73](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/{bucket_name}/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (the bucket is reserved and cannot be deleted)
- 404: Not Found (no such bucket)
- 409: Conflict (bucket is not empty)
- 411: Missing HTTP header

Example

Sample Request

This request deletes the bucket named "bucket1".

```
DELETE http://blackpearl-hostname/bucket1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```


GET BUCKET (LIST OBJECTS)

Description

Returns a list of the objects contained in a bucket. Use parameters as selection criteria to return a list of a subset of the objects. This is an Amazon S3 compatible operation. The parameter `max-keys` is set by default, so paging is required to get the full list.

See [Get Bucket \(List objects\)](#) for Amazon S3 operation details .

Also see [Get Bucket - DS3 on page 74](#).

Requests

Syntax

```
GET http[s]://{datapathDNSname}/{bucket_name}/[?delimiter={string}][&marker={string}][&max-keys={integer}][&prefix={string}][&versions]
```

Request Parameters

Parameter	Description	Required
delimiter	A character used to group object names.	no
marker	The object name to start with when listing objects in a bucket.	no
max-keys	The maximum number of keys (object names) returned in the response. Default: 1000	no
prefix	Limits the response to object names that begin with the specified prefix. If a delimiter is specified, unique text strings before the delimiter in object names are considered prefixes.	no
versions	If included, the response includes the version UUID for the objects.	no

Responses

Response Elements

```

<ListBucketResult>
  <CommonPrefixes>
    <Prefix>{string}</Prefix>
  </CommonPrefixes>
  ...
  <Contents>
    <ETag>"{string}"</ETag>
    <Key>{string}</Key>
    <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
    <Owner>
      <DisplayName>{string}</DisplayName>
      <ID>{string}</ID>
    </Owner>
    <Size>{64-bit integer}</Size>
    <StorageClass>{string}</StorageClass>
    <VersionId>{string}</VersionId>
  </Contents>
  ...
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Delimiter>{string}</Delimiter>
  <IsTruncated>TRUE|FALSE</IsTruncated>
  <Marker>{string}</Marker>
  <MaxKeys>{integer}</MaxKeys>
  <Name>{string}</Name>
  <NextMarker>{string}</NextMarker>
  <Prefix>{string}</Prefix>
</ListBucketResult>

```

where the response elements are defined as follows:

Parameter	Description
ListBucketResult	The container for the response.
CommonPrefixes	If a delimiter is specified, <code>CommonPrefixes</code> contains the portion of an object's name between the prefix and the next occurrence of the delimiter.
Prefix	The string used to limit the response keys. Only object names that begin with the specified prefix are listed.

Parameter	Description
Contents	The container for object information.
ETag	The HTTP entity tag.
Key	The object name.
LastModified	The last date and time the object was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If this attribute is null, then the object has not yet been completely received into cache.
Owner	The container for owner information.
DisplayName	The username of the object owner.
ID	The UUID of the object owner.
Size	The size of the object in bytes.
StorageClass	Not used.
VersionId 1	The UUID for the version of the object.
CreationDate	The date and time the bucket was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Delimiter	The character used to group object names.
IsTruncated	Specifies whether the results were truncated (TRUE) or not (FALSE) due to the number of results exceeding <code>MaxKeys</code> . Values: TRUE, FALSE
Marker	The object name where the bucket listing begins. <code>Marker</code> is included in the response if it was specified in the request.
MaxKeys	The maximum number of keys (object names) returned in the response.
Name	The name of the bucket.
NextMarker	If the delimiter parameter was specified, and <code>IsTruncated</code> is TRUE , then <code>NextMarker</code> indicates the object name to use in the marker field in the next request to get the next set of objects.

1) Only returned if **versions** is included.

Example

Sample Request

This request lists the objects in the bucket named “bucket1” using the delimiter “/”.

```
GET http://blackpearl-hostname/bucket1/?delimiter=/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<ListBucketResult>
  <CommonPrefixes>
    <Prefix>movies/</Prefix>
  </CommonPrefixes>
  ...
  <Contents>
    <ETag>"88d576b1d168ab4c6582de17cbb9780f-4"</ETag>
    <Key>LICENSE</Key>
    <LastModified/>
    <Owner>
      <DisplayName>user1</DisplayName>
      <ID>2d7a060f-640a-4186-875f-e413a47a85c2</ID>
    </Owner>
    <Size>0</Size>
    <StorageClass/>
  </Contents>
  ...
  <CreationDate>2014-10-02T11:40:12.000Z</CreationDate>
  <Delimiter>/</Delimiter>
  <IsTruncated>FALSE</IsTruncated>
  <Marker/>
  <MaxKeys>1000</MaxKeys>
  <Name>bucket1</Name>
  <NextMarker/>
  <Prefix/>
</ListBucketResult>
```

GET BUCKETS (GET SERVICE)

Description

Retrieves a list of all buckets owned by the sender of the request. This is an Amazon S3 compatible operation.

See [Get Service](#) for Amazon S3 operation details .

Also see [Get Buckets - DS3](#) on page 76.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/
```

Responses

Response Elements

```
<ListAllMyBucketsResult>
  <Buckets>
    <Bucket>
      <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
      <Name>{string}</Name>
    </Bucket>
    ...
  </Buckets>
  <Owner>
    <DisplayName>{string}</DisplayName>
    <ID>{string}</ID>
  </Owner>
</ListAllMyBucketsResult>
```

where the response elements are defined as follows:

Parameter	Description
ListAllMyBuckets Result	The container for the response.

Parameter	Description
Buckets	The container for one or more buckets.
Bucket	The container for bucket information.
CreationDate	The date the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Name	The name of the bucket.
Owner	The container for owner information.
DisplayName	The username of the bucket owner.
ID	The UUID of the bucket owner.

Example

Sample Request

This request lists the buckets owned by the sender.

```
GET http://blackpearl-hostname/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<ListAllMyBucketsResult>
  <Buckets>
    <Bucket>
      <CreationDate>2014-09-10T20:21:27.000Z</CreationDate>
      <Name>bucket1</Name>
    </Bucket>
    <Bucket>
      <CreationDate>2014-09-12T17:28:41.000Z</CreationDate>
      <Name>bucket2</Name>
    </Bucket>
  </Buckets>
  <Owner>
    <DisplayName>spectra</DisplayName>
    <ID>2d7a060f-640a-4186-875f-e413a47a85c2</ID>
  </Owner>
</ListAllMyBucketsResult>
```

HEAD BUCKET

Description

Returns bucket metadata values as HTTP headers. This operation is useful to determine if a bucket exists and you have permission to access it. This is an Amazon S3 compatible operation.

See [Head Bucket](#) for Amazon S3 operation details .

Requests

Syntax

```
HEAD http[s]://{datapathDNSname}/{bucket_name}/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK
- 403: Forbidden (the requester does not have list permission)
- 404: Not Found

Example

Sample Request

This request gets the header information for “bucket1”.

```
HEAD http://blackpearl-hostname/bucket1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

CHAPTER 3 - AMAZON S3 OBJECT OPERATIONS

This section describes operations you can perform on objects. Each object has data, a key (name) that uniquely identifies the object, and metadata, such as creation date.

Delete Object	44
Delete Multiple Objects	45
Get Object	48
Head Object	50
Put Object	52

DELETE OBJECT

Description

Deletes an object. Due to the nature of tape storage, objects on tape are marked for deletion but the storage is not immediately reclaimed. The tape library will, in the background, reclaim tapes which contain only deleted objects. This is an Amazon S3 compatible operation.

See [Delete Object](#) for Amazon S3 operation details.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/{bucket_name}/{object_name}/[?version_id={string}]
```

Request Parameters

Parameter	Description	Required
version_id	The UUID for the version of the object. If KEEP_MULTIPLE_VERSIONS is configured for the data policy and version_id is not included, Latest is set to FALSE for all versions, but no versions are deleted.	no

Responses

Response Elements

The operation returns status only. Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the object named “object1” in the bucket “bucket1”.

```
DELETE http://blackpearl-hostname/bucket1/object1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE MULTIPLE OBJECTS

Description

Delete up to 1,000 specified objects from a bucket. For buckets stored in tape libraries, objects are marked for deletion but the storage is not immediately reclaimed. The tape library will, in the background, reclaim tapes which contain only deleted objects. This is an Amazon S3 compatible operation.

See [Delete Multiple Objects](#) for Amazon S3 operation details.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/{bucket_name}/?delete
```

Request Parameters

Parameter	Description	Required
delete	Included to indicate a delete operation.	yes

Request Elements

An XML payload, formatted as follows, must be sent to describe the objects to delete:

```
<Delete>
  <Object>
    <Key>{string}</Key>
  </Object>
  ...
</Delete>
```

where the parameters are defined as follows:

Parameter	Description	Required
Delete	The container for all objects to delete.	yes
Object	The container for the information about a single object to delete.	yes
Key	The name of an object to delete.	yes
version_id	The UUID for the version of the object. If KEEP_MULTIPLE_VERSIONS is configured for the data policy and version_id is not included, Latest is set to FALSE for all versions, but no versions are deleted.	no

Responses

Response Elements

```
<DeleteResult>
  <Deleted>
    <Key>{string}</Key>
  </Deleted>
  ...
  <Error>
    <Code>{string}</Code>
    <Key>{string}</Key>
    <Message>{string}</Message>
  </Error>
  ...
</DeleteResult>
```

where the response elements are defined as follows:

Parameter	Description
DeleteResult	The container for the response.
Deleted	The container for one or more objects successfully deleted.
Key	The name for the object.
Error	The container for one or more objects that were not successfully deleted.
Code	The status code for the failed delete.
Message	A description of the error for the failed delete.

Example

Sample Request

This request deletes objects named “TFINITY-4-frame_shadow.png” and “BlackPearl-LeftFacing.png” from “bucket1”.

```
POST http://blackpearl-hostname/bucket1/?delete HTTP/1.1
<Delete>
  <Object>
    <Key>TFINITY-4-frame_shadow.png</Key>
  </Object>
  <Object>
    <Key>BlackPearl-LeftFacing.png</Key>
  </Object>
</Delete>
```

Sample Response

```
HTTP/1.1 200 OK
<DeleteResult>
  <Deleted>
    <Key>TFINITY-4-frame_shadow.png</Key>
  </Deleted>
  <Error>
    <Key>BlackPearl-LeftFacing.png</Key>
    <Code>AccessDenied</Code>
    <Message>Access Denied</Message>
  </Error>
</DeleteResult>
```

GET OBJECT

Description

Retrieves an object from storage. Spectra Logic recommends using DS3 requests to create a GET job rather than using this request stand alone in a strict Amazon S3 manner. This is particularly important when getting many small objects or getting very large objects that have been broken up for physical placement. This is an Amazon S3 compatible operation with additional request parameters. The `job` and `offset` parameters should always be used when doing a GET object as part of a bulk GET job.

If the object is on tape, clients should expect latency and/or non-error response codes detailed below.

See [Get Object](#) for Amazon S3 operation details.

Notes:

- A [Create Bulk GET](#) (see [page 165](#)) request should be issued to the BlackPearl gateway before the `GET object` request. The BlackPearl gateway may choose to fail any `GET object` request which does not match the plan returned by the prior [Create Bulk GET](#) request.
- For more information about bulk GET jobs, see [Processing a Bulk GET Job on page 148](#).
- If the `job` and `offset` parameters are not provided and the object has multiple parts because it was PUT using multipart upload, or it was PUT using a DS3 PUT job and the object was broken up into more than one part, the GET request fails.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/{bucket_name}/{object_name}/[?job={string}][&offset={64-bit integer}][&version_id={string}]
```

Request Parameters

Parameter	Description	Required
job	The UUID or a unique attribute for the job.	recommended
offset	The offset in bytes from the start of the object.	recommended
version_id	The UUID for the version of the object. If KEEP_MULTIPLE_VERSIONS is configured for the data policy and version_id is not included, Latest is set to FALSE for all versions, but no versions are deleted.	no

Request Header

- The HTTP header for the checksum is returned when applicable (see [Put Object on page 52](#)), so that the client can verify that the data received is correct. End-to-end data protection requires that the client provide the CRC when uploading the object and then verify the CRC after downloading the object at a later time. The BlackPearl gateway also verifies the CRC when reading from physical data stores so the gateway can identify problems before transmitting data to the client.
- This operation supports the HTTP Range header as implemented by Amazon S3 to download the specified range bytes of an object. See [Get Object](#) for more information.

Responses

Response Elements

The operation returns a header, the requested object content, and status information. It does not return response elements.

When possible, the response header has the status code 200 OK.

The header may also contain the following non-error statuses:

- 304 Not Modified (without object content):
 - if the `if-none-match` header was specified, but the object ETag is different than the given tag;
 - if the `if-modified-since` header was specified but the object has not been modified since the given time.
- 307 Temporary Redirect: In the event a tape library cannot retrieve an object within the allotted time, it will respond with 307 Temporary Redirect (along with the host address and port of the specific BlackPearl gateway which contains this object) before the timeout expires, and continue retrieving the object. The client must resend the `GET Object` request to the given address and port.
- 412 Precondition Failed (without object content):
 - `if-match` header was specified, but the object ETag did not match the specified tag;
 - `if-unmodified-since` header was specified but the object has been modified since the given time.

Example

Sample Request

This request GETs the object named “object1” from the bucket “bucket1”.

```
GET http://blackpearl-hostname/bucket1/object1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK  
{object data}
```

HEAD OBJECT

Description

Get object metadata values returned as an HTTP header. This operation is useful to determine if an object exists and you have permission to access it. This is an Amazon S3 compatible operation.

See [Head Object](#) for Amazon S3 operation details.

Requests

Syntax

```
HEAD http[s]://{datapathDNSname}/{bucket_name}/{object_name}/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK
- 404: Not Found

Example

Sample Request

This request gets the header information for “object1” in “bucket1”.

```
HEAD http://blackpearl-hostname/bucket1/object1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

with header information

```
requesthandler-version: 1.CF182CD57551902A475553F26582BC78
etag: "ccf72718895ee98441a2211f30c14cc2-3"
  creation-date: 2019-07-11T20:35:47.000Z
version-id: eec64ea6-8434-492f-a068-ef516da801a3
x-amz-meta-bucket: bucket-000002
x-amz-meta-filename: file-000000-31e04edf-2%2Fe88-4b5c-9b9b-3b73dd4cd993
ds3-blob-checksum-type: MD5
ds3-blob-checksum-offset-68719476736: rCfop/wnvdwEuX59FikQIA==
ds3-blob-checksum-offset-0: rCfop/wnvdwEuX59FikQIA==
ds3-blob-checksum-offset-137438953472: mnhaBwDj9tR95jevtmpZgQ==
x-amz-request-id: 2546
content-language: en-US
content-length: 200000000000
date: Mon, 2 Dec 2019 21:13:48 GMT
connection: close
```

PUT OBJECT

Description

Create an S3 object in a bucket. Include the data for the object with your request. Spectra Logic recommends using DS3 requests to create a PUT job rather than using this request stand alone in a strict Amazon S3 manner. This is particularly important when putting many small objects or putting very large objects that must be broken up for physical placement.

This is an Amazon S3 compatible operation with additional request parameters. The `job` and `offset` parameters should always be used when doing a PUT object as part of a bulk PUT job (see [Processing a Bulk PUT Job on page 149](#)). If not using the `job` and `offset` parameters, the maximum object length is 1 TB (1,099,511,627,776 bytes).

See [Put Object](#) for Amazon S3 operation details.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/{bucket_name}/{object_name}/[?job={string}][&offset={64-bit integer}]
```

`{object_name}` must follow the Amazon S3 naming restrictions. See [Object Key and Metadata](#) for more information.

Request Parameters

Parameter	Description	Required
<code>job</code>	The UUID or a unique attribute for the job.	recommended
<code>offset</code>	The offset in bytes from the start of the object.	recommended

Request Header

The client-side checksum is passed to the BlackPearl gateway by supplying the applicable CRC HTTP header (see [Common Request Header Elements on page 31](#)). If this is done, the BlackPearl gateway verifies that the data received matches the checksum provided. End-to-end data protection requires that the client provide the CRC when uploading the object and then verify the CRC after downloading the object at a later time (see [Get Object on page 48](#)). The BlackPearl gateway also verifies the CRC when reading from physical data stores so the gateway can identify problems before transmitting data to the client.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK (success)
- 409: Conflict (object exists)

Example

Sample Request

This request creates the object named “object1” in the bucket “bucket1”.

```
PUT http://blackpearl-hostname/bucket1/object1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

CHAPTER 4 - AMAZON S3 MULTIPART OBJECT OPERATIONS

Multipart Uploads are a way of uploading objects that are too large to upload in a single action.

Note: Spectra Logic recommends that you use DS3 requests to create a PUT job, then upload each object piece in the PUT job, rather than using Multipart Upload (see [Processing a Bulk PUT Job on page 149](#)). Using a bulk PUT job achieves better scalability and performance. Note that a maximum upload size can be specified on a PUT job if smaller transfer sizes are required.

The general process for Multipart Uploads is as follows:

1. Initiate the multipart upload; see [Initiate Multipart Upload on page 58](#) for details.
2. Upload all parts; see [Upload Part on page 67](#) for details. Note the `PartNumber` and `ETag` for each part.
3. Complete the MultiPart Upload; see [Complete Multipart Upload on page 56](#) for details. This request reassembles the object parts into one object. You must provide the `PartNumber` and `ETag` for each part.

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ABORT MULTIPART UPLOAD

Description

Cancel a multipart upload that has been initiated but has not yet completed. This is an Amazon S3 compatible operation.

See [Abort Multipart Upload](#) for Amazon S3 operation details.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/{bucket}/{object}?upload_id={string}
```

To determine the UUID of the multipart upload, see [List Multipart Uploads on page 63](#).

Request Parameters

Parameter	Description	Required
<code>upload_id</code>	The UUID of the multipart upload.	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the multipart upload with the UUID 18baa28f-1c85-4cd2-9023-71600b1759f3.

```
DELETE http[s]://blackpearl-hostname/bucket1/test.aaf?upload_id=18baa28f-1c85-4cd2-9023-71600b1759f3 HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

COMPLETE MULTIPART UPLOAD

Description

Commit a multipart upload that has been initiated, but not yet completed or aborted. Run this command after successfully uploading all parts of a multipart upload. The BlackPearl gateway assembles the previously uploaded parts in ascending order by part number to create a new object. This process can take several minutes to complete. This is an Amazon S3 compatible operation.

See [Complete Multipart Upload](#) for Amazon S3 operation details .

Requests

Syntax

```
POST http[s]://{datapathDNSname}/{bucket}/{object}?upload_id={string}
```

To determine the UUID of the multipart upload, see [List Multipart Uploads on page 63](#).

Request Parameters

Parameter	Description	Required
<code>upload_id</code>	The UUID of the multipart upload.	yes

Request Elements

An XML payload, formatted as follows, must be sent to describe the parts in the upload:

Note: If you did not note the `PartNumber` and `ETag` for all object parts when they were uploaded using [Upload Part on page 67](#), use [List Multipart Upload Parts on page 60](#) to determine the `PartNumber` and `ETag`.

```
<CompleteMultipartUpload>
  <Part>
    <PartNumber>{64-bit integer}</PartNumber>
    <ETag>"{string}"</ETag>
  </Part>
  ...
</CompleteMultipartUpload>
```

where the parameters are defined as follows:

Parameter	Description	Required
CompleteMultipartUpload	A container for the list of parts.	yes
Part	A container for the information about one part.	yes
PartNumber	The user defined number that uniquely identifies the uploaded part and its position in the object.	yes
ETag	The HTTP entity tag for the object part.	yes

Responses

Response Elements

```
<CompleteMultipartUploadResult>
  <Bucket>{string}</Bucket>
  <ETag>"{string}"</ETag>
  <Key>{string}</Key>
  <Location>{string}</Location>
</CompleteMultipartUploadResult>
```

where the response elements are defined as follows:

Parameter	Description
CompleteMultipartUploadResult	The container for the response.
Bucket	The name for the bucket in which the object resides.
ETag	The HTTP entity tag for the newly created object.
Key	The object name for the newly created object.
Location	The URI (uniform resource identifier) that identifies the newly created object.

Example

Sample Request

This request commits the multipart upload with the UUID 18baa28f-1c85-4cd2-9023-71600b1759f3.

```
POST http[s]://blackpearl-hostname/bucket1/test.aaf?upload_id=18baa28f-1c85-4cd2-9023-71600b1759f3 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<CompleteMultipartUploadResult>
  <Bucket>bucket1</Bucket>
  <ETag>"98d476a1d168aa4c4592ce06cab9880f-3"</ETag>
  <Key>test.aaf</Key>
  <Location>d57cdf7-df15-4cec-bcbd-559b651634b8</Location>
</CompleteMultipartUploadResult>
```

INITIATE MULTIPART UPLOAD

Description

Initiates a multipart upload for an object. This operation attempts to allocate 5 TB of cache space for the multipart upload, which may be significantly more than the actual cache space necessary. If cache space cannot be allocated in full, an error is returned. If this call succeeds, it is guaranteed that neither part uploads nor a complete multipart upload request will fail due to cache allocation issues. This is an Amazon S3 compatible operation.

See [Initiate Multipart Upload](#) for Amazon S3 operation details.

Notes:

- Spectra Logic recommends that you use DS3 requests to create a PUT job, then upload each object piece in the PUT job, rather than using Multipart Upload (see [Processing a Bulk PUT Job on page 149](#)). Using a bulk PUT job achieves better scalability and performance. Note that a maximum upload size can be specified on a PUT job if smaller transfer sizes are required.
- The cache space allocated by this call is not released until the multi-part upload is aborted, completed, or times out.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/{bucket}/{object}?uploads
```

Request Parameters

Parameter	Description	Required
uploads	Indicates that this operation initiates a multipart upload.	yes

Responses

Response Elements

```
HTTP/1.1 200 OK
<InitiateMultipartUploadResult>
  <Bucket>{string}</Bucket>
  <Key>{string}</Key>
  <UploadId>{string}</UploadId>
</InitiateMultipartUploadResult>
```

where the response elements are defined as follows:

Parameter	Description
InitiateMultipart UploadResult	The container for the response.
Bucket	The name for the bucket in which the object resides.
Key	The object name.
UploadID	The UUID for the multipart upload.

Example

Sample Request

This request initiates a multipart upload for the object test.aaf.

```
POST http[s]://blackpearl-hostname/bucket1/test.aaf?uploads HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<InitiateMultipartUploadResult>
  <Bucket>bucket1</Bucket>
  <Key>test.aaf</Key>
  <UploadId>18baa28f-1c85-4cd2-9023-71600b1759f3</UploadId>
</InitiateMultipartUploadResult>
```

LIST MULTIPART UPLOAD PARTS

Description

Lists parts that have been uploaded for a specified multipart upload. This is an Amazon S3 compatible operation.

See [List Parts](#) for Amazon S3 operation details.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/{bucket}/{object}?upload_id={string} [&max_parts={64-bit integer}] [&part_number_marker={64-bit integer}]
```

To determine the UUID of the multipart upload, see [List Multipart Uploads on page 63](#).

Request Parameters

Parameter	Description	Required
upload_id	The UUID of the multipart upload.	yes
max_parts	The maximum number of parts to list in the response. The default is 1000.	no
part_number_marker	Specifies the part number after which the listing begins. Only parts with higher part numbers will be listed.	no

Responses

Response Elements

```
<ListPartsResult>
  <Bucket>{string}</Bucket>
  <IsTruncated>TRUE|FALSE</IsTruncated>
  <Key>{string}</Key>
  <MaxParts>{64-bit integer}</MaxParts>
  <NextPartNumberMarker>{64-bit integer}</NextPartNumberMarker>
  <Owner>
    <DisplayName>{string}</DisplayName>
    <ID>{string}</ID>
  </Owner>
  <Part>
    <ETag>"{string}"</ETag>
    <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
    <PartNumber>{string}</PartNumber>
  </Part>
  ...
  <PartNumberMarker>{64-bit integer}</PartNumberMarker>
  <UploadId>{string}</UploadId>
</ListPartsResult>
```

where the response elements are defined as follows:

Parameter	Description
ListPartsResult	The container for the response.
Bucket	The name for the bucket in which the object resides.
IsTruncated	Specifies whether the results were truncated (TRUE) or not (FALSE) due to the number of results exceeding <code>MaxParts</code> . Values: TRUE, FALSE
Key	The object name.
MaxParts	Maximum number of parts to include in the response.
NextPartNumber Marker	When the list is truncated, this element specifies the value to use for the <code>part_number_marker</code> request parameter in a subsequent request.
Owner	The container for information about the owner.
DisplayName	The username for the owner.

Parameter	Description
ID	The UUID for the owner.
Part	The container for information about an object part.
ETag	The HTTP entity tag for the part.
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartNumber	The number that uniquely identifies the uploaded part and its position in the object.
PartNumberMarker	Part number after which listing begins.
UploadID	The UUID for the multipart upload.

Example

Sample Request

This request gets a list of up to three parts that have been uploaded for the multipart upload with the upload ID 125c261c-5c84-49e3-bcda-07d312e28019.

```
GET http[s]://blackpearl-hostname/bucket1/test.aaf?upload_id=125c261c-5c84-49e3-
bcda-07d312e28019&max_parts=3 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<ListPartsResult>
  <Bucket>bucket1</Bucket>
  <IsTruncated>TRUE</IsTruncated>
  <Key>test.aaf</Key>
  <MaxParts>3</MaxParts>
  <NextPartNumberMarker>3</NextPartNumberMarker>
  <Owner>
    <DisplayName>default_user_name</DisplayName>
    <ID>31569b32-3cd5-4687-ab3b-88f5aea8f54d</ID>
  </Owner>
  <Part>
    <ETag>"c4ca4238a0b923820dcc509a6f75849b"</ETag>
    <LastModified>2015-02-12T17:28:41.000Z</LastModified>
    <PartNumber>1</PartNumber>
  </Part>
```

```

<Part>
  <ETag>"c81e728d9d4c2f636f067f89cc14862c"</ETag>
  <LastModified>2015-02-12T17:28:41.000Z</LastModified>
  <PartNumber>2</PartNumber>
</Part>
<Part>
  <ETag>"eccbc87e4b5ce2fe28308fd9f2a7baf3"</ETag>
  <LastModified>2015-02-12T17:28:41.000Z</LastModified>
  <PartNumber>3</PartNumber>
</Part>
<PartNumberMarker/>
<UploadId>125c261c-5c84-49e3-bcda-07d312e28019</UploadId>
</ListPartsResult>

```

LIST MULTIPART UPLOADS

Description

Lists and gives information about multipart uploads currently in progress for the specified bucket. This is an Amazon S3 compatible operation.

See [List Multipart Uploads](#) for Amazon S3 operation details.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/{bucket}/?uploads[&delimiter={string}][&key_marker={64-bit integer}][&max_uploads={64-bit integer}][&prefix={string}][&upload_id_marker={string}]
```

Request Parameters

Parameter	Description	Required
uploads	Indicates that this operation initiates a multipart upload.	yes
delimiter	A character used to group object names.	no

Parameter	Description	Required
key_marker	Together with <code>upload_id_marker</code> , this parameter specifies the multipart upload after which listing should begin. If <code>upload_id_marker</code> is not specified, only the keys lexicographically greater than the specified <code>key_marker</code> are included in the list. If <code>upload_id_marker</code> is specified, any multipart uploads for a key equal to the <code>key_marker</code> are included if the multipart uploads have upload IDs lexicographically greater than the specified <code>upload_id_marker</code> .	no
max_uploads	Maximum number of uploads to include in the response.	no
prefix	Limits the response to object names that begin with the specified prefix. If a delimiter is specified, unique text strings before the delimiter in object names are considered prefixes.	no
upload_id_marker	Together with <code>key_marker</code> , specifies the multipart upload after which listing should begin. If <code>key_marker</code> is not specified, this parameter is ignored. Otherwise, any multipart uploads for a key equal to the <code>key_marker</code> are included in the list if they have an upload ID lexicographically greater than the specified <code>upload_id_marker</code> .	no

Responses

Response Elements

```
<ListMultipartUploadsResult>
  <Bucket>{string}</Bucket>
  <Delimiter>{string}</Delimiter>
  <IsTruncated>TRUE|FALSE</IsTruncated>
  <KeyMarker>{string}</KeyMarker>
  <MaxUploads>{64-bit integer}</MaxUploads>
  <NextKeyMarker>{string}</NextKeyMarker>
  <NextUploadIdMarker>{string}</NextUploadIdMarker>
  <Prefix>{string}</Prefix>
```

```

<Upload>
  <Initiated>{YYYY-MM-DDThh:mm:ss.xxxZ}</Initiated>
  <Key>{string}</Key>
  <Owner>
    <DisplayName>{string}</DisplayName>
    <ID>{string}</ID>
  </Owner>
  <UploadId>{string}</UploadId>
</Upload>
...
<UploadIdMarker>{string}</UploadIdMarker>
</ListMultipartUploadsResult>

```

where the response elements are defined as follows:

Parameter	Description
ListMultipartUploadsResult	The container for the response.
Bucket	The name for the bucket in which the object resides.
Delimiter	The character used to group object names.
IsTruncated	Specifies whether the results were truncated (TRUE) or not (FALSE) due to the number of results exceeding <code>MaxParts</code> . Values: TRUE , FALSE
KeyMarker	The key at or after which the listing began.
MaxUploads	Maximum number of uploads included in the response.
NextKeyMarker	When the list is truncated, this element specifies the value to use for the <code>key_marker</code> request parameter in a subsequent request.
NextUploadIdMarker	When the list is truncated, this element specifies the value to use for the <code>upload_id_marker</code> request parameter in a subsequent request.
Prefix	The string used to limit the response keys. Only object names that begin with the specified prefix are listed.
Upload	The container for information about one upload.
Initiated	Date and time when the multipart upload was initiated in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Key	The name of the object for which the multipart upload was initiated.

Parameter	Description
Owner	The container for information about the owner.
DisplayName	The username for the owner.
ID	The UUID for the owner.
UploadID	The UUID for the multipart upload.
UploadIdMarker	Upload ID after which listing began.

Example

Sample Request

This request gets a list of the multipart uploads in-progress for bucket1.

```
GET http[s]://blackpearl-hostname/bucket1/?uploads HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<ListMultipartUploadsResult>
  <Bucket>bucket1</Bucket>
  <Delimiter/>
  <IsTruncated>FALSE</IsTruncated>
  <KeyMarker>test_object_1</KeyMarker>
  <MaxUploads>1000</MaxUploads>
  <NextKeyMarker/>
  <NextUploadIdMarker/>
  <Prefix/>
  <Upload>
    <Initiated>2015-02-12T17:28:41.000Z</Initiated>
    <Key>test_object_2</Key>
    <Owner>
      <DisplayName>user_name</DisplayName>
      <ID>2d7a060f-640a-4186-875f-e413a47a85c2</ID>
    </Owner>
    <UploadId>870c99ca-9d94-4e2f-a344-2596d1ebdaf4</UploadId>
  </Upload>
  <UploadIdMarker/>
</ListMultipartUploadsResult>
```

UPLOAD PART

Description

Upload a multipart upload part. This is an Amazon S3 compatible operation. See [Upload Part](#) for Amazon S3 operation details .

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/{bucket}/{object}?part_number={32-bit integer}&upload_id={string}
```

To determine the UUID of the multipart upload, see [List Multipart Uploads on page 63](#).

Request Parameters

Parameter	Description	Required
part_number	A user defined number between 1 and 10,000. A part number uniquely identifies a part and its position in the object you are uploading. If you upload a new object part using the same part number as a previously uploaded part, the previously uploaded part is overwritten.	yes
upload_id	The UUID of the multipart upload.	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK (success): ETag is returned in the header
- 404: Not Found (bucket or object does not exist)
- 409: Conflict (object exists)

Example

Sample Request

This request puts the second part of the multipart upload with the UUID 18baa28f-1c85-4cd2-9023-71600b1759f3.

```
PUT http[s]://blackpearl-hostname/bucket1/test.aaf?part_number=2&upload_id=18baa28f-1c85-4cd2-9023-71600b1759f3 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```


VOLUME B - DS3 BUCKET, OBJECT, AND JOB OPERATIONS

This section describes operations that control where data is stored and for how long.

- [DS3 Bucket Operations on page 70](#)
- [DS3 Object Operations on page 82](#)
- [Job Operations on page 147](#)

CHAPTER 5 - DS3 BUCKET OPERATIONS

This section describes operations you can perform on buckets. A bucket represents a collection of related objects with common policy settings. Objects in buckets are completely independent of each other.

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CREATE BUCKET - DS3

Description

Create a bucket using a specific data policy. The data policy must have at least one permanent persistence rule configured.

When creating a bucket for use with a data policy including an Amazon S3 or Microsoft Azure replication target, the bucket name must adhere to the cloud target naming requirements.



IMPORTANT

- For BlackPearl software version 3.5.2 or earlier, the BlackPearl gateway changes bucket names with upper case letters to all lower case letters when needed. If you are using bucket names that only differ by case, the buckets are combined on the cloud target causing possible data collision and bucket ownership/permission problems.
- For BlueScale software version 4.0 or later, if the bucket name is incompatible with the naming requirements of the cloud target provider, bucket creation fails and an error is returned.

Also see [Create Bucket \(Put Bucket\)](#) on page 34.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/bucket/?name={string} [&data_policy_id={string}] [&id={string}] [&protected=TRUE|FALSE] [&user_id={string}]
```

To determine the UUID for a data policy, see [Get Data Policies](#) on page 353.

Request Parameters

Parameter	Description	Required
name	<p>The name for the new bucket.</p> <p>IMPORTANT When creating a bucket for use with a data policy including an Amazon S3 or Microsoft Azure replication target, the bucket name must adhere to the cloud target naming requirements.</p> <ul style="list-style-type: none"> For BlackPearl software version 3.5.2 or earlier, the BlackPearl gateway changes bucket names with upper case letters to all lower case letters when needed. If you are using bucket names that only differ by case, the buckets are combined on the cloud target causing possible data collision and bucket ownership/permission problems. For BlueScale software version 4.0 or later, if the bucket name is incompatible with the naming requirements of the cloud target provider, bucket creation fails and an error is returned. <p>Notes:</p> <ul style="list-style-type: none"> The bucket name cannot contain a colon (:), forward slash (/), or space. The bucket name cannot exceed 255 characters. 	yes
data_policy_id	<p>The UUID, name, or other unique attribute for the data policy.</p> <p>Default:</p> <ul style="list-style-type: none"> If only one data policy exists, that is the default data policy. If the user has a default data policy assigned, that is the default data policy. If more than one data policy exists and the user does not have a default data policy assigned, then the <code>data_policy_id</code> parameter is required or the operation fails. 	in some cases
id	The UUID for the bucket.	no
protected	The protection setting for the bucket. Protected buckets cannot be deleted. Values: TRUE , FALSE (default).	no
user_id	<p>The UUID, username, or other unique attribute for the bucket owner.</p> <p>Default: The user creating the bucket.</p>	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <DataPolicyId>{ string }</DataPolicyId>
  <Id>{ string }</Id>
  <LastPreferredChunkSizeInBytes>
    { 64-bit integer }
  </LastPreferredChunkSizeInBytes>
  <Name>{ string }</Name>
  <Protected>{ TRUE | FALSE }</Protected>
  <UserId>{ string }</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ
DataPolicyId	The UUID for the assigned data policy.
Id	The UUID for the bucket.
LastPreferredChunkSizeInBytes	The last preferred chunk size computed for a PUT job for this bucket.
Name	The name of the bucket.
Protected	The protection setting for the bucket.
UserId	The UUID for the bucket owner.

Example

Sample Request

This request creates the bucket named “new_bucket” using the data policy with the UUID 22bdea46-4b7f-4f70-873c-ff953fa97b3b:

```
POST http://blackpearl-hostname/_rest_/bucket/?name=new_bucket&data_policy_id=22bdea46-4b7f-4f70-873c-ff953fa97b3b HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <CreationDate>2015-07-22T14:22:49.224Z</CreationDate>
  <DataPolicyId>
    22bdea46-4b7f-4f70-873c-ff953fa97b3b
  </DataPolicyId>
  <Id>1acb4e56-ae93-49a0-b288-db93f0a70ea4</Id>
  <LastPreferredChunkSizeInBytes/>
  <Name>new_bucket</Name>
  <Protected>FALSE</Protected>
  <UserId>c0a80d43-c1ae-4ee1-87d5-12ca632e8205</UserId>
</Data>
```

DELETE BUCKET - DS3

Description

Delete a DS3 bucket. All objects must be deleted prior to deleting a bucket or the `force` parameter must be specified. For tape partitions, the bucket is marked for deletion, but may not be deleted from tape until the space is needed.

Also see [Delete Bucket](#) on page 36.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/bucket/{bucket_name}/[?force]
```

Request Parameters

Parameter	Description	Required
<code>force</code>	If included, the bucket and all objects in the bucket are deleted.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found
- 409: Conflict (`force` was not specified, bucket is not empty)

Example

Sample Request

This request deletes the bucket named “bucket1”.

```
DELETE http://blackpearl-hostname/_rest_/bucket/bucket1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET BUCKET - DS3

Description

Shows information about the specified bucket, such as logical used capacity and data policy.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket/{bucket UUID, name, or other unique attribute}/
```

To determine the UUID for a bucket, see [Get Buckets - DS3 on page 76](#).

Responses

Response Elements

```
<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <DataPolicyId>{ string }</DataPolicyId>
  <Id>{ string }</Id>
  <LastPreferredChunkSizeInBytes>
    { 64-bit integer }
  </LastPreferredChunkSizeInBytes>
  <LogicalUsedCapacity>{ 64-bit integer }</LogicalUsedCapacity>
  <Name>{ string }</Name>
  <Protected>TRUE | FALSE</Protected>
  <UserId>{ string }</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ
DataPolicyId	The UUID for the assigned data policy.
Id	The UUID for the bucket.
LastPreferredChunkSizeInBytes	The last preferred chunk size computed for a PUT job for this bucket.
LogicalUsed Capacity	The logical capacity used in bytes.
Name	The name of the bucket.
Protected	The protection status of the bucket.
UserId	The UUID for the bucket owner.

Example

Sample Request

This request gets the bucket capacity summary and default settings for “bucket1”.

```
GET http://blackpearl-hostname/_rest_/bucket/bucket1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2015-07-22T14:22:50.083Z</CreationDate>
  <DataPolicyId>
    33cfbff0-bd43-43b9-a144-8abe69328217
  </DataPolicyId>
  <Id>f00729b7-dfa6-4a18-9bf7-a0759aa7dbb3</Id>
  <LastPreferredChunkSizeInBytes/>
  <LogicalUsedCapacity>0</LogicalUsedCapacity>
  <Name>bucket1</Name>
  <Protected>FALSE</Protected>
  <UserId>22de0f70-be2e-4d9b-b28a-ac250a2a2405</UserId>
</Data>
```

GET BUCKETS - DS3

Description

Shows information, such as logical used capacity and data policy, about all buckets configured on the BlackPearl gateway. Use parameters as selection criteria to return information for a subset of all buckets.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket/[?data_policy_id={string}][&last_page]
[&name={string}][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&user_id={string}]
```


Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	no
last_page	If included, only the last page of results is returned.	no
name 1	The name of the bucket.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or a unique attribute for the bucket owner.	no

Responses

Response Elements

```

<Data>
  <Bucket>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <LastPreferredChunkSizeInBytes>
      {64-bit integer}
    </LastPreferredChunkSizeInBytes>
    <LogicalUsedCapacity>{64-bit integer}</LogicalUsedCapacity>
    <Name>{string}</Name>

```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <Protected>TRUE|FALSE</Protected>
    <UserId>{string}</UserId>
  </Bucket>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Bucket	The container for information about a single bucket.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ
DataPolicyId	The UUID for the assigned data policy.
Id	The UUID for the bucket.
LastPreferredChunkSizeInBytes	The last preferred chunk size computed for a PUT job for this bucket.
LogicalUsed Capacity	The logical capacity used in bytes.
Name	The name of the bucket.
Protected	The protection status of the bucket.
UserId	The UUID for the bucket owner.

Example

Sample Request

This request gets data policy and logical used capacity information for all buckets.

```
GET http://blackpearl-hostname/_rest_/bucket/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Bucket>
    <CreationDate>2015-07-22 14:22:50.284</CreationDate>
    <DataPolicyId>
      704401b4-03a1-4752-9329-08e8c77fce23
    </DataPolicyId>
    <Id>ccef9b22-aa77-449e-9f4f-3fe6ecc4be03</Id>
    <LastPreferredChunkSizeInBytes/>
    <LogicalUsedCapacity>1024</LogicalUsedCapacity>
    <Name>bucket1</Name>
    <Protected>FALSE</Protected>
    <UserId>7bd66b10-1d8e-49ce-b7ef-c680432dbfc8</UserId>
  </Bucket>
  ...
</Data>
```

MODIFY BUCKET - DS3

Description

Modify the owner or data policy for a bucket.

Note: The data policy for a bucket can be changed to another data policy provided that all of the criteria below are met:

- The checksum type of the new data policy is the same as the old
- All persistence rules in the old data policy must have a State of **NORMAL**. They cannot be in the State **INCLUSION_IN_PROGRESS**
- All persistence rules in the new data policy must have a State of **NORMAL**. They cannot be in the State **INCLUSION_IN_PROGRESS**
- The sets of storage domains targeted by permanent, temporary, and retired persistence rules are each identical between the new and old data policies
- The isolation levels match identically for each storage domain targeted
- The versioning policy of the new data policy is the same as the old

If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket_name}/[?data_policy_id={string}][&protected=TRUE|FALSE][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	no
protected	The protection status of the bucket. Protected buckets cannot be deleted. Values: TRUE , FALSE (default).	no
user_id	The UUID, username, or other unique identifier for the bucket owner.	no

Responses

Response Elements

```
<Data>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <LastPreferredChunkSizeInBytes>
    {64-bit integer}
  </LastPreferredChunkSizeInBytes>
  <Name>{string}</Name>
  <Protected>{TRUE|FALSE}</Protected>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ
DataPolicyId	The UUID for the assigned data policy.
Id	The UUID for the bucket.
LastPreferredChunkSizeInBytes	The last preferred chunk size computed for a PUT job for this bucket.
Name	The name of the bucket.
Protected	The protection setting for the bucket.
UserId	The UUID for the bucket owner.

Example

Sample Request

This request modifies “bucket1” to use the data policy with the name “DP2”:

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?data_policy_id=DP2 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2015-07-22 14:22:50.53</CreationDate>
  <DataPolicyId>
    edc234bc-5acd-4de2-a158-2a166ad607e8
  </DataPolicyId>
  <Id>173de2f9-a6b5-4b88-ba0e-2fd925aa1e4c</Id>
  <LastPreferredChunkSizeInBytes/>
  <Name>bucket1</Name>
  <Protected>FALSE</Protected>
  <UserId>47e1051f-0536-42e7-a3b8-4e4acfe19ace</UserId>
</Data>
```

CHAPTER 6 - DS3 OBJECT OPERATIONS

This section describes DS3 operations you can perform on objects.

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DELETE FOLDER RECURSIVELY

Description

Recursively deletes the folder specified and all folders and objects beneath it associated with the specified bucket.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/folder/{Folder UUID, path, or other unique attribute}/?bucket_id={string}&recursive
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID or name for a bucket.	yes
recursive	Included to indicate a recursive operation.	yes

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request recursively deletes all objects and folders in the folder “movies/raw” associated with the bucket “bucket1”.

```
DELETE http://blackpearl-hostname/folder/movies/raw/?bucket_id=bucket1&recursive
HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET OBJECT - DS3

Description

Get information about an object.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object/{object_name}/?bucket_id={string}
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique attribute for a bucket.	yes

Responses

Response Elements

```

<Data>
  <BucketId>{string}</BucketId>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Id>{string}</Id>
  <Latest>TRUE|FALSE</Latest>
  <Name>{string}</Name>
  <Type>DATA|FOLDER</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket in which the object resides.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Id	The UUID for the object.
Latest	Whether this version of the object is the latest. Values: TRUE , FALSE
Name	The name of the object.
Type	The type of object. Values: DATA , FOLDER

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Example

Sample Request

This request GETs information about the object with the UUID 073fe9c2-5983-4a46-9974-60804b8a6349 in the bucket with the UUID 6d17cd22-d456-4458-8cb6-b553eb81ce3f.

```
GET http://blackpearl-hostname/_rest_/object/073fe9c2-5983-4a46-9974-60804b8a6349/?bucketId=6d17cd22-d456-4458-8cb6-b553eb81ce3f HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <BucketId>6d17cd22-d456-4458-8cb6-b553eb81ce3f</BucketId>
  <CreationDate/>
  <Id>073fe9c2-5983-4a46-9974-60804b8a6349</Id>
  <Latest>TRUE</Latest>
  <Name>object_name</Name>
  <Type>DATA</Type>
</Data>
```

GET OBJECTS - DS3

Description

Lists information about all objects. Use parameters as selection criteria to return information about a subset of the objects.

Note: Selection criteria should always be used to reduce the size of the response. The full list can be very large and take a long time for the response.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object/[?bucket_id={string}][&end_date={64-bit integer}][&full_details][&include_physical_placement][&last_page][&latest=TRUE|FALSE][&name={string}][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&start_date={64-bit integer}][&type=DATA|FOLDER]
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID or name for a bucket.	no
end_date	If included, only objects created between the end_date and start_date are included in the response.	no
full_details	If included the ETag, owner, and size of the object is included in the response.	no
include_physical_placement	If included, the response includes physical placement information. Note: This parameter can only be used along with <code>full_details</code> .	no
last_page	If included, only the last page of results is returned.	no
latest	Whether this version of the blob is the latest. The default is false. Values: TRUE, FALSE	no
name ¹	The name of an object.	no
page_length	The maximum number of objects to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first object to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
start_date	If included, only objects created between the end_date and start_date are included in the response.	no
type	The type of object. Values: DATA, FOLDER	no

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

With full_details:

```
<Data>
  <Object or S3Object>
    <Blobs> (only if include_physical_placement is included)
      <Object>
        Bucket="{string}"
        Id="{string}"
        InCache="TRUE|FALSE"
        Latest="TRUE|FALSE"
        Length="{64-bit integer}"
        Name="{string}"
        Offset="{64-bit integer}"
        VersionId="{string}"
        <PhysicalPlacement>
          <AzureTargets>
            <AzureTarget>
              <AccountKey>{string}</AccountKey>
              <AccountName>{string}</AccountName>
              <AutoVerifyFrequencyInDays>
                {integer}
              </AutoVerifyFrequencyInDays>
              <CloudBucketPrefix>
                {string}
              </CloudBucketPrefix>
              <CloudBucketSuffix>
                {string}
              </CloudBucketSuffix>
              <DefaultReadPreference>
                MINIMUM_LATENCY|AFTER_ONLINE_POOL|
                AFTER_NEARLINE_POOL|
                AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|
                NEVER
              </DefaultReadPreference>
              <Https>TRUE|FALSE</Https>
              <Id>{string}</Id>
```

```

    <LastFullyVerified/>
    <Name>{string}</Name>
    <PermitGoingOutOfSync>
        TRUE | FALSE
    </PermitGoingOutOfSync>
    <Quiesced>NO | PENDING | YES</Quiesced>
    <State>ONLINE | OFFLINE | LIMITED_ACCESS</State>
</AzureTarget>
...
</AzureTargets>
<Ds3Targets>
    <Ds3Target>
        <AccessControlReplication>
            NONE | USERS
        </AccessControlReplication>
        <AdminAuthId>{string}</AdminAuthId>
        <AdminSecretKey>{string}</AdminSecretKey>
        <DataPathEndPoint>{string}</DataPathEndPoint>
        <DataPathHttps>TRUE | FALSE</DataPathHttps>
        <DataPathPort>{16-bit integer}</DataPathPort>
        <DataPathProxy>{string}</DataPathProxy>
        <DataPathVerifyCertificate>
            TRUE | FALSE
        </DataPathVerifyCertificate>
        <DefaultReadPreference>
            MINIMUM_LATENCY | AFTER_ONLINE_POOL
            | AFTER_NEARLINE_POOL
            | AFTER_NON_EJECTABLE_TAPE | LAST_RESORT
            | NEVER
        </DefaultReadPreference>
        <Id>{string}</Id>
        <Name>{string}</Name>
        <PermitGoingOutOfSync>
            TRUE | FALSE
        </PermitGoingOutOfSync>
        <Quiesced>NO | PENDING | YES</Quiesced>
        <ReplicatedUserDefaultDataPolicy>
            {string}
        </ReplicatedUserDefaultDataPolicy>
        <State>ONLINE | OFFLINE</State>
    </Ds3Target>
</Ds3Targets>

```

```

<Pools>
  <Pool>
    <AssignedToStorageDomain>
      TRUE | FALSE
    </AssignedToStorageDomain>
    <AvailableCapacity>
      {64-bit integer}
    </AvailableCapacity>
    <BucketId>{string}</BucketId>
    <Guid>{string}</Guid>
    <Health>OK | DEGRADED</Health>
    <Id>{string}</Id>
    <LastAccessed>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastAccessed>
    <LastModified>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastModified>
    <LastVerified>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastVerified>
    <Mountpoint>/{string}</Mountpoint>
    <Name>{string}</Name>
    <PartitionId>{string}</PartitionId>
    <PoweredOn>TRUE | FALSE</PoweredOn>
    <Quiesced>NO | PENDING | YES</Quiesced>
    <ReservedCapacity>
      {64-bit integer}
    </ReservedCapacity>
    <State>
      NORMAL | FOREIGN | IMPORT_IN_PROGRESS |
      IMPORT_PENDING | LOST
    </State>
    <StorageDomainMemberId>
      {string}
    </StorageDomainMemberId>
    <TotalCapacity>
      {64-bit integer}
    </TotalCapacity>
    <Type>NEARLINE | ONLINE</Type>
    <UsedCapacity>{64-bit integer}</UsedCapacity>
  </Pool>
  ...
</Pools>

```

```

<S3Targets>
  <S3Target>
    <AccessKey>{string}</AccessKey>
    <AutoVerifyFrequencyInDays>
      {integer}
    </AutoVerifyFrequencyInDays>
    <CloudBucketPrefix>
      {string}
    </CloudBucketPrefix>
    <CloudBucketSuffix>
      {string}
    </CloudBucketSuffix>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|
      AFTER_NEARLINE_POOL|
      AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|
      NEVER
    </DefaultReadPreference>
    <Https>TRUE|FALSE</Https>
    <Id>{string}</Id>
    <LastFullyVerified>
      {string}
    </LastFullyVerified>
    <Name>{string}</Name>
    <NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
    <OfflineDataStagingWindowInTb>
      {64-bit integer}
    </OfflineDataStagingWindowInTb>
    <PermitGoingOutOfSync>
      TRUE|FALSE
    </PermitGoingOutOfSync>
    <ProxyDomain>{string}</ProxyDomain>
    <ProxyHost>{string}</ProxyHost>
    <ProxyPassword>{string}</ProxyPassword>
    <ProxyPort>{64-bit integer}</ProxyPort>
    <ProxyUsername>{string}</ProxyUsername>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <Region>
      US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|
      EU_WEST_1|EU_WEST_2|EU_CENTRAL_1|
      AP_SOUTH_1|AP_SOUTHEAST_1|AP_SOUTHEAST_2|
      AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|
      CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1
    </Region>
  </S3Target>
</S3Targets>

```

```

    <SecretKey>{string}</SecretKey>
    <StagedDataExpirationInDays>
      {64-bit integer}
    </StagedDataExpirationInDays>
    <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
  </S3Target>
  ...
</S3Targets>
<Tapes>
  <Tape>
    <AssignedToStorageDomain>
      TRUE|FALSE
    </AssignedToStorageDomain>
    <AvailableRawCapacity>
      {64-bit integer}
    </AvailableRawCapacity>
    <BarCode>{string}</BarCode>
    <BucketId>{string}</BucketId>
    <DescriptionForIdentification>
      {string}
    </DescriptionForIdentification>
    <EjectDate>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </EjectDate>
    <EjectLabel>{string}</EjectLabel>
    <EjectLocation>{string}</EjectLocation>
    <EjectPending>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </EjectPending>
    <FullOfData>TRUE|FALSE</FullOfData>
    <Id>{string}</Id>
    <LastAccessed>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastAccessed>
    <LastCheckpoint>{string}</LastCheckpoint>
    <LastModified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastModified>
    <LastVerified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastVerified>
    <PartiallyVerifiedEndOfTape>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </PartiallyVerifiedEndOfTape>
  </Tape>
</Tapes>

```

```

<PartitionId>{string}</PartitionId>
<PreviousState>
    NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|
    BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_
    WRITE_PROTECTION|DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_
    PENDING|EJECT_TO_EE_IN_PROGRESS|EJECTED|
    FOREIGN|FORMAT_IN_PROGRESS|FORMAT_PENDING
    |IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|
    OFFLINE|ONLINE_IN_PROGRESS|ONLINE_PENDING
    |PENDING_INSPECTION|RAW_IMPORT_IN_
    PROGRESS|RAW_IMPORT_PENDING
    |SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
    NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|
    BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_
    WRITE_PROTECTION|DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_
    PENDING|EJECT_TO_EE_IN_PROGRESS|EJECTED|
    FOREIGN|FORMAT_IN_PROGRESS|FORMAT_PENDING
    |IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|
    OFFLINE|ONLINE_IN_PROGRESS|ONLINE_PENDING
    |PENDING_INSPECTION|RAW_IMPORT_IN_
    PROGRESS|RAW_IMPORT_PENDING
    |SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>
    {string}
</StorageDomainMemberId>
<TakeOwnershipPending>
    TRUE|FALSE
</TakeOwnershipPending>

```



```

    <TotalRawCapacity>
      {64-bit integer}
    </TotalRawCapacity>
    <Type>
      FORBIDDEN|LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|
      LTO_CLEANING_TAPE|TS_JC|TS_JD|TS_JE|
      TS_JL|TS_JK|TS_JM|TS_JV|TS_JY|TS_JZ|
      TS_CLEANING_TAPE|UNKNOWN
    </Type>
    <VerifyPending>
      CRITICAL|URGENT|HIGH|NORMAL|LOW|
      BACKGROUND
    </VerifyPending>
    <WriteProtected>TRUE|FALSE</WriteProtected>
  </Tape>
</Tapes>
</PhysicalPlacement>
</Object>
...
</Blobs>
<BlobsBeingPersisted>{string}</BlobsBeingPersisted>
  (only if include_physical_placement is included)
<BlobsDegraded>{64-bit integer}</BlobsDegraded>
  (only if include_physical_placement is included)
<BlobsInCache>{64-bit integer}</BlobsInCache>
  (only if include_physical_placement is included)
<BlobsTotal>{64-bit integer}</BlobsTotal>
  (only if include_physical_placement is included)
<BucketId>{string}</BucketId>
<CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
<ETag>{string}</ETag> (only if full_details is included)
<Id>{string}</Id>
<Latest>TRUE|FALSE</Latest>
<Name>{string}</Name>
<Owner>{string}</Owner>
  (only if full_details is included)
<Size>{string}</Size> (only if full_details is included)
<Type>DATA|FOLDER</Type>
</Object or S3Object>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
Data	The container for the response.		
Object	The container for information about one object that was split into multiple blobs.		
S3Object	The container for information about one object that was kept whole.		
Blobs	The container for information about the blobs that are part of the object.	yes	
Object	The container for information about one blob.	yes	
Bucket	The name of the bucket to which the object is assigned.	yes	
Id	The UUID for the blob.	yes	
InCache	Whether the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE	yes	
Latest	Whether this version of the blob is the latest. Values: TRUE, FALSE	yes	
Length	The length in bytes of the blob.	yes	
Name	The name of the object.	yes	
Offset	The offset in bytes from the start of the object.	yes	
VersionId	The UUID for the version of the object.	yes	
Physical Placement	The container for the list of tapes containing the object.	yes	
AzureTargets	The container for information about all Azure targets with degraded objects.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
AzureTarget	The container for information about one Azure target with a degraded object.	yes	
AccountName	The account name for the Microsoft Azure account. Note: You can not use the same Account Name for multiple Microsoft Azure targets.	yes	
AutoVerify FrequencyIn Days	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.	yes	
CloudBucket Prefix	The Azure target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Azure target.	yes	
CloudBucket Suffix	The Azure target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Azure target.	yes	
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	yes	
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .	yes	
Id	The UUID for the Azure target instance.	yes	
LastFullyVerified	The date and time the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
Name	The name for the Azure target.	yes	
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for Azure targets.	yes	
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES	yes	
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	yes	
Ds3Targets	The container for information about all BlackPearl targets.	yes	
Ds3Target	The container for information about one BlackPearl target.	yes	
AccessControlReplication	The access control that is replicated to the BlackPearl target. Values: NONE — No access control is replicated. USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.	yes	
AdminAuthId	The S3 access ID assigned to an Administrator.	yes	
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .	yes	
DataPathEndPoint	The IPv4 address or DNS name for the data path of the BlackPearl target.	yes	
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
DataPathPort	The value of the port on which the target BlackPearl gateway's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.	yes	
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	yes	
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE	yes	
DefaultRead Preference	When it is preferable to read from the BlackPearl target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	yes	
Id	The UUID for the BlackPearl target instance. Note: If a BlackPearl target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.	yes	
Name	The name for the BlackPearl target.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time.	yes	
Quiesced	Whether the BlackPearl target is in a temporarily inactive state. Values: NO, PENDING, YES	yes	
ReplicatedUserDefaultData Policy	The data policy the target applies as the default data policy for any users replicated to the target.	yes	
State	The state of the BlackPearl target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	yes	
Pools	The container for information about all pools.	yes	
Pool	The container for information about one pool.	yes	
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE	yes	
Available Capacity	The amount of unused capacity on the pool in bytes.	yes	
BucketId	The UUID for the bucket to which the pool is assigned.	yes	
Guid	The ZFS identifier for the pool.	yes	
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
Id	The UUID for the pool.	yes	
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.	yes	
Name	The name for the pool.	yes	
PartitionId	The UUID of the pool partition.	yes	
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE	yes	
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES	yes	
ReservedCapacity	The capacity reserved to ensure pool performance.	yes	
State	The status of the pool. See State on page 600 .	yes	
StorageDomain MemberId	The UUID for the storage domain member.	yes	
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.	yes	
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
UsedCapacity	The amount of used capacity on the pool in bytes.	yes	
S3Targets	The container for information about all Amazon S3 targets with degraded objects.	yes	
S3Target	The container for information about one Amazon S3 target with a degraded object.	yes	
AccessKey	The S3 Access Key of the user for the Amazon S3 account.	yes	
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.	yes	
CloudBucket Prefix	The S3 target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.	yes	
CloudBucket Suffix	The S3 target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.	yes	
DataPath Endpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.	yes	
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .	yes	
Id	The UUID for the Amazon S3 target instance.	yes	
LastFullyVerified	The date and time data on the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
Name	The name for the Amazon S3 target.	yes	
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL, AWS_S3	yes	
OfflineData StagingWindow InTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.	yes	
PermitGoingOut OfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for S3 targets.	yes	
ProxyDomain	The domain name for the proxy server.	yes	
ProxyHost	The host name or IP address for the proxy server to which the BlackPearl gateway connects.	yes	
ProxyPassword	The password used when connecting through the proxy server.	yes	
ProxyPort	The proxy server port through which the BlackPearl gateway connects.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
ProxyUsername	The username used when connecting through the proxy server.	yes	
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO, PENDING, YES	yes	
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1	yes	
SecretKey	The secret key associated with the AccessKey.	yes	
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire.	yes	
State	The state of the Amazon S3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	yes	
Tapes	The container for information about all tapes.	yes	
Tape	The container for information about the tape containing the object.	yes	
AssignedTo StorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE	yes	
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.	yes	
BarCode	The barcode on the label of the tape cartridge.	yes	
BucketId	The UUID for the bucket to which the tape is assigned.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.	yes	
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.	yes	
EjectLabel	The user-entered information to assist in the handling of the tape.	yes	
EjectLocation	The user-entered information to describe where the ejected tape can be located.	yes	
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.	yes	
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE	yes	
Id	The UUID for the tape.	yes	
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.	yes	
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
PartiallyVerifiedEndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.	yes	
PartitionId	The UUID for the partition to which the tape belongs.	yes	
PreviousState	The previous status of the tape. See State on page 664 .	yes	
Role	The role assigned to the tape. Values: Normal, Test	yes	
SerialNumber	The manufacturer-assigned serial number for the tape.	yes	
State	The status of the tape. See State on page 664 .	yes	
StorageDomainMemberId	The UUID for the storage domain member.	yes	
TakeOwnershipPending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current BlackPearl gateway. • FALSE — The tape was imported successfully. 	yes	
TotalRawCapacity	The total raw capacity of the tape in bytes.	yes	

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	yes	
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	yes	
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE	yes	
BlobsBeingPersisted	The number of blobs for the object currently being written to physical data stores.	yes	yes
BlobsDegraded	The number of blobs for the object in a degraded state.	yes	yes
BlobsInCache	The number of blobs for the object existing in cache.	yes	yes
BlobsTotal	The total number of blobs for the object.	yes	yes
BucketId	The UUID for the bucket in which the object resides.		
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.		
ETag	The HTTP entity tag.	yes	
Id	The UUID for the object.		
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE		

Parameter	Description	Only if full_details is included	Only if include_physical_placement is included
Name	The name of the object.		
Owner	The owner of the object.	yes	
Size	The size of the object in bytes.	yes	
Type	The type of object. Values: DATA , FOLDER		

Example

Sample Request

This request GETs information about all of the objects in all buckets with full details.

```
GET http://blackpearl-hostname/_rest_/object/?full_details HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<Object>
```

```
<BucketId>e980121b-d809-480e-90d3-04254e8ea7b2</BucketId>
```

```
<CreationDate/>
```

```
<ETag/>
```

```
<Id>2373760e-fa82-4b76-9a04-e52b0199172f</Id>
```

```
<Latest>TRUE</Latest>
```

```
<Name>/audio/</Name>
```

```
<Owner/>
```

```
<Size>0</Size>
```

```
<Type>FOLDER</Type><
```

```
</Object>
```

```
<Object>
  <BucketId>e980121b-d809-480e-90d3-04254e8ea7b2</BucketId>
  <CreationDate/>
  <ETag/>
  <Id>471054f9-7452-45e0-8ed1-2b7cb92ec6d0</Id>
  <Latest>TRUE</Latest>
  <Name>/cover.jpg</Name>
  <Owner>owner name</Owner>
  <Size>98789</Size>
  <Type>DATA</Type>
</Object>
</Data>
```

GET PHYSICAL PLACEMENT

Description

Get the list of media on which the specified objects are physically located. Errors are not returned if the object does not exist or if the object does not have a physical placement. If the `full_details` request parameter is specified, physical placement is shown on a per-object-piece basis. If the `full_details` request parameter is not specified, a summary physical placement is provided. Use the `storage_domain_id` parameter to return the physical placement of the objects within the specified storage domain only.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket name}?operation=get_physical_
placement[&full_details][&storage_domain={string}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to get physical placement. Value: GET_PHYSICAL_PLACEMENT	yes
full_details	If included, physical placement is shown on a per-object-piece basis. If not included, a summary physical placement is provided	no
storage_domain	The UUID, name, or other unique attribute for the storage domain.	no

Request Elements

An XML payload, formatted as follows, must be sent to describe the object for which to get physical placement information:

```
<Objects>
  <Object Name="{string}" Version_Id="{string}"/>
  <Object Name="{string}" Version_Id="{string}"/>
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
Object	The container for information about one object or object part.	yes
Name	The name of an object to eject. All objects in the list must be in the same bucket.	yes
Version_Id	The UUID for the version of the object.	no

Responses

Response Elements

```

<Data>
  <Object Id="{string}" InCache="TRUE|FALSE" Latest="TRUE|FALSE"
    Length="{64-bit integer}" Name="{string}"
    Offset="{64-bit integer}" VersionId="{string}">
    (only if full_details is included)
    <PhysicalPlacement> (only if full_details is included)
      <AzureTargets>
        <AzureTarget>
          <AccountKey>{string}</AccountKey>
          <AccountName>{string}</AccountName>
          <AutoVerifyFrequencyInDays>
            {integer}
          </AutoVerifyFrequencyInDays>
          <CloudBucketPrefix>{string}</CloudBucketPrefix>
          <CloudBucketSuffix>{string}</CloudBucketSuffix>
          <DefaultReadPreference>
            MINIMUM_LATENCY|AFTER_ONLINE_POOL|
            AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
            LAST_RESORT|NEVER
          </DefaultReadPreference>
          <Https>TRUE|FALSE</Https>
          <Id>{string}</Id>
          <LastFullyVerified/>
          <Name>{string}</Name>
          <PermitGoingOutOfSync>
            TRUE|FALSE
          </PermitGoingOutOfSync>
          <Quiesced>NO|PENDING|YES</Quiesced>
          <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
        </AzureTarget>
        ...
      </AzureTargets>

```

```

<Ds3Targets>
  <Ds3Target>
    <AccessControlReplication>
      NONE|USERS
    </AccessControlReplication>
    <AdminAuthId>{string}</AdminAuthId>
    <AdminSecretKey>{string}</AdminSecretKey>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DataPathHttps>TRUE|FALSE</DataPathHttps>
    <DataPathPort>{16-bit integer}</DataPathPort>
    <DataPathProxy>{string}</DataPathProxy>
    <DataPathVerifyCertificate>
      TRUE|FALSE
    </DataPathVerifyCertificate>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL
      |AFTER_NEARLINE_POOL
      |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
    </DefaultReadPreference>
    <Id>{string}</Id>
    <Name>{string}</Name>
    <PermitGoingOutOfSync>
      TRUE|FALSE
    </PermitGoingOutOfSync>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <ReplicatedUserDefaultDataPolicy>
      {string}
    </ReplicatedUserDefaultDataPolicy>
    <State>ONLINE|OFFLINE</State>
  </Ds3Target>
</Ds3Targets>
<Pools>
  <Pool>
    <AssignedToStorageDomain>
      TRUE|FALSE
    </AssignedToStorageDomain>
    <AvailableCapacity>
      {64-bit integer}
    </AvailableCapacity>
    <BucketId>{string}</BucketId>
    <Guid>{string}</Guid>
    <Health>OK|DEGRADED</Health>
    <Id>{string}</Id>
  </Pool>
</Pools>

```

```

    <LastAccessed>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastAccessed>
    <LastModified>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastModified>
    <LastVerified>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastVerified>
    <Mountpoint>{string}</Mountpoint>
    <Name>{string}</Name>
    <PartitionId>{string}</PartitionId>
    <PoweredOn>TRUE|FALSE</PoweredOn>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <ReservedCapacity>
      {64-bit integer}
    </ReservedCapacity>
    <State>
      NORMAL|FOREIGN|IMPORT_IN_PROGRESS|
      IMPORT_PENDING|LOST
    </State>
    <StorageDomainMemberId>
      {string}
    </StorageDomainMemberId>
    <TotalCapacity>{64-bit integer}</TotalCapacity>
    <Type>NEARLINE|ONLINE</Type>
    <UsedCapacity>{64-bit integer}</UsedCapacity>
  </Pool>
  ...
</Pools>
<S3Targets>
  <S3Target>
    <AccessKey>{string}</AccessKey>
    <AutoVerifyFrequencyInDays>
      {integer}
    </AutoVerifyFrequencyInDays>
    <CloudBucketPrefix>{string}</CloudBucketPrefix>
    <CloudBucketSuffix>{string}</CloudBucketSuffix>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|
      AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
      LAST_RESORT|NEVER
    </DefaultReadPreference>
  </S3Target>
</S3Targets>

```

```

    <Https>TRUE|FALSE</Https>
    <Id>{string}</Id>
    <LastFullyVerified>{string}</LastFullyVerified>
    <Name>{string}</Name>
    <NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
    <OfflineDataStagingWindowInTb>
        {64-bit integer}
    </OfflineDataStagingWindowInTb>
    <PermitGoingOutOfSync>
        TRUE|FALSE
    </PermitGoingOutOfSync>
    <ProxyDomain>{string}</ProxyDomain>
    <ProxyHost>{string}</ProxyHost>
    <ProxyPassword>{string}</ProxyPassword>
    <ProxyPort>{64-bit integer}</ProxyPort>
    <ProxyUsername>{string}</ProxyUsername>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <Region>
        US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|
        EU_WEST_1|EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|
        AP_SOUTHEAST_1|AP_SOUTHEAST_2|AP_NORTHEAST_1|
        AP_NORTHEAST_2|SA_EAST_1|CN_NORTH_1|GOV_CLOUD|
        CA_CENTRAL_1
    </Region>
    <SecretKey>{string}</SecretKey>
    <StagedDataExpirationInDays>
        {64-bit integer}
    </StagedDataExpirationInDays>
    <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</S3Target>
...
</S3Targets>
<Tapes>
    <Tape>
        <AssignedToStorageDomain>
            TRUE|FALSE
        </AssignedToStorageDomain>
        <AvailableRawCapacity>
            {64-bit integer}
        </AvailableRawCapacity>
        <Barcode>{string}</Barcode>
    </Tape>

```

```

<BucketId>{string}</BucketId>
<DescriptionForIdentification>
  {string}
</DescriptionForIdentification>
<EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
<EjectLabel>{string}</EjectLabel>
<EjectLocation>{string}</EjectLocation>
<EjectPending>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</EjectPending>
<FullOfData>TRUE|FALSE</FullOfData>
<Id>{string}</Id>
<LastAccessed>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastModified>
<LastVerified>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|
  BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_
  PROTECTION|DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
  FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
  PROGRESS|IMPORT_PENDING|INCOMPATIBLE|
  LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_
  INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
  PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>

```

```

    <State>
        NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|
        BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_
        PROTECTION|DATA_CHECKPOINT_FAILURE|
        DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
        DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
        EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
        FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
        PROGRESS|IMPORT_PENDING|INCOMPATIBLE|
        LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
        ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_
        INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
        PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
    </State>
    <StorageDomainMemberId>
        {string}
    </StorageDomainMemberId>
    <TakeOwnershipPending>
        TRUE|FALSE
    </TakeOwnershipPending>
    <TotalRawCapacity>
        {64-bit integer}
    </TotalRawCapacity>
    <Type>
        LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|
        TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|
        TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN
    </Type>
    <VerifyPending>
        CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
    </VerifyPending>
    <WriteProtected>TRUE|FALSE</WriteProtected>
    </Tape>
</Tapes>
</PhysicalPlacement>
</Object>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description	Only if full_ details is included
Data	A container for the response.	
Object	The container for information about one object.	yes
Id	The UUID for the object.	yes
InCache	Whether the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE	yes
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE	yes
Length	The length in bytes of the object.	yes
Name	The name of the object.	yes
Offset	The offset in bytes from the start of the object.	yes
VersionId	The UUID of the version of the object.	yes
PhysicalPlacement	The container for the list of tapes containing the object.	yes
AzureTargets	The container for information about all Azure targets with degraded objects.	
AzureTarget	The container for information about one Azure target with a degraded object.	
AccountKey	The account key associated with the account name below.	
AccountName	The account name for the Microsoft Azure account. Note: You can not use the same Account Name for multiple Microsoft Azure targets.	
AutoVerifyFrequency InDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.	

Parameter	Description	Only if full_ details is included
CloudBucketPrefix	The Azure target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Azure target.	
CloudBucketSuffix	The Azure target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Azure target.	
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .	
Id	The UUID for the Azure target instance.	
LastFullyVerified	The date and time the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
Name	The name for the Azure target.	
PermitGoingOutOf Sync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for Azure targets.	
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES	
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	
Ds3Targets	The container for information about all BlackPearl targets.	
Ds3Target	The container for information about one BlackPearl target.	

Parameter	Description	Only if full_ details is included
AccessControl Replication	The access control that is replicated to the BlackPearl target. Values: NONE — No access control is replicated. USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.	
AdminAuthId	The S3 access ID assigned to an Administrator.	
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .	
DataPathEndPoint	The IPv4 address or DNS name for the data path of the BlackPearl target.	
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE	
DataPathPort	The value of the port on which the target BlackPearl gateway's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.	
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE	
DefaultRead Preference	When it is preferable to read from the BlackPearl target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	

Parameter	Description	Only if full_ details is included
Id	The UUID for the BlackPearl target instance. Note: If a BlackPearl target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.	
Name	The name for the BlackPearl target.	
PermitGoingOutOf Sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time.	
Quiesced	Whether the BlackPearl target is in a temporarily inactive state. Values: NO, PENDING, YES	
ReplicatedUserDefault DataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.	
State	The state of the BlackPearl target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	
Pools	The container for information about all pools.	
Pool	The container for information about one pool.	
AssignedToStorage Domain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE	
AvailableCapacity	The amount of unused capacity on the pool in bytes.	
BucketId	The UUID for the bucket to which the pool is assigned.	
Guid	The ZFS identifier for the pool.	
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED	

Parameter	Description	Only if full_ details is included
Id	The UUID for the pool.	
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.	
Name	The name for the pool.	
PartitionId	The UUID of the pool partition.	
PoweredOn	Whether the pool is powered on. Values: TRUE , FALSE	
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO , PENDING , YES	
ReservedCapacity	The capacity reserved to ensure pool performance.	
State	The status of the pool. See State on page 600 .	
StorageDomain MemberId	The UUID for the storage domain member.	
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.	
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	
UsedCapacity	The amount of used capacity on the pool in bytes.	
S3Targets	The container for information about all Amazon S3 targets with degraded objects.	

Parameter	Description	Only if full_ details is included
S3Target	The container for information about one Amazon S3 target with a degraded object.	
AccessKey	The S3 Access Key of the user for the Amazon S3 account.	
AutoVerifyFrequency InDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.	
CloudBucketPrefix	The S3 target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.	
CloudBucketSuffix	The S3 target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.	
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.	
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .	
Id	The UUID for the Amazon S3 target instance.	
LastFullyVerified	The date and time data on the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
Name	The name for the Amazon S3 target.	

Parameter	Description	Only if full_ details is included
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL , AWS_S3	
OfflineDataStaging WindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.	
PermitGoingOutOf Sync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for S3 targets.	
ProxyDomain	The domain name for the proxy server.	
ProxyHost	The host name or IP address for the proxy server to which the BlackPearl gateway connects.	
ProxyPassword	The password used when connecting through the proxy server.	
ProxyPort	The proxy server port through which the BlackPearl gateway connects.	
ProxyUsername	The username used when connecting through the proxy server.	
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO , PENDING , YES	
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1 , US_EAST_2 , US_WEST_1 , US_WEST_2 , EU_WEST_1 , EU_WEST_2 , EU_CENTRAL_1 , AP_SOUTH_1 , AP_SOUTHEAST_1 , AP_SOUTHEAST_2 , AP_NORTHEAST_1 , AP_NORTHEAST_2 , SA_EAST_1 , CN_NORTH_1 , GOV_CLOUD , CA_CENTRAL_1	
SecretKey	The secret key associated with the AccessKey.	
StagedDataExpiration InDays	The number of days before the pre-staged copy of data can expire.	

Parameter	Description	Only if full_ details is included
State	The state of the Amazon S3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	
Tapes	The container for information about all tapes.	
Tape	The container for information about the tape containing the object.	
AssignedToStorage Domain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE	
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.	
BarCode	The barcode on the label of the tape cartridge.	
BucketId	The UUID for the bucket to which the tape is assigned.	
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.	
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.	
EjectLabel	The user-entered information to assist in the handling of the tape.	
EjectLocation	The user-entered information to describe where the ejected tape can be located.	
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.	
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE	

Parameter	Description	Only if full_ details is included
Id	The UUID for the tape.	
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.	
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
PartiallyVerifiedEndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
PartitionId	The UUID for the partition to which the tape belongs.	
PreviousState	The previous status of the tape. See State on page 664 .	
Role	The role assigned to the tape. Values: Normal , Test	
SerialNumber	The manufacturer-assigned serial number for the tape.	
State	The status of the tape. See State on page 664 .	
StorageDomainMemberId	The UUID for the storage domain member.	

Parameter	Description	Only if full_details is included
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current BlackPearl gateway. • FALSE — The tape was imported successfully. 	
TotalRawCapacity	The total raw capacity of the tape in bytes.	
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE	

Example

Sample Request

This request returns a list of the tapes on which the objects specified in the payload reside.

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=get_physical_placement&full_details HTTP/1.1
<Objects>
  <Object Name="o1"/>
</Objects>
```


Sample Response

HTTP/1.1 200 OK

```
<Data>
  <Object Bucket="b1" Id="0cdeed57-c962-4e58-9e70-3c20fc88d257"
    InCache="false" Latest="true" Length="10" Name="o1"
    Offset="0" VersionId="d3ac09a1-15b1-4c72-9a44-d0a3e3c39d31">
    <PhysicalPlacement>
      <AzureTargets/>
      <Ds3Targets/>
      <Pools>
        <Pool>
          <AssignedToStorageDomain>>false</AssignedToStorageDomain>
          <AvailableCapacity>10000</AvailableCapacity>
          <BucketId/>
          <Guid>d276b9a9-02e4-4528-972d-8e621719510c</Guid>
          <Health>OK</Health>
          <Id>8b5a44e5-cfe8-4021-a745-bc70832cd6b5</Id>
          <LastAccessed/>
          <LastModified/>
          <LastVerified/>
          <Mountpoint>/mountpoint-0</Mountpoint>
          <Name>p1</Name>
          <PartitionId/>
          <PoweredOn>>true</PoweredOn>
          <Quiesced>NO</Quiesced>
          <ReservedCapacity>0</ReservedCapacity>
          <State>NORMAL</State>
          <StorageDomainMemberId>
            db43b9ee-f2a5-4e8d-8620-f7aa14508bba
          </StorageDomainMemberId>
          <TotalCapacity>0</TotalCapacity>
          <Type>NEARLINE</Type>
          <UsedCapacity>20000</UsedCapacity>
        </Pool>
      </Pools>
      <S3Targets/>
      <Tapes/>
    </PhysicalPlacement>
  </Object>
</Data>
```

UNDELETE OBJECT

Description

Restores the most recent version of an object when the data policy specifies versioning=**KEEP_MULTIPLE_VERSIONS**.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/object/?bucket_id={string}&name={string}
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique attribute for a bucket.	yes
name ¹	The name, UUID, or other unique attribute of an object.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Id>{string}</Id>
  <Latest>TRUE|FALSE</Latest>
  <Name>{string}</Name>
  <Type>DATA|FOLDER</Type>
</Data>
```

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket in which the object resides.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Id	The UUID for the object.
Latest	Whether this version of the object is the latest. Values: TRUE , FALSE
Name	The name of the object.
Type	The type of object. Values: DATA , FOLDER

Example

Sample Request

This request restores the object with the UUID 073fe9c2-5983-4a46-9974-60804b8a6349 in the bucket named bucket1.

```
PUT http://blackpearl-hostname/_rest_/object/?bucketId=bucket1 &name=073fe9c2-5983-4a46-9974-60804b8a6349 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <BucketId>6d17cd22-d456-4458-8cb6-b553eb81ce3f</BucketId>
  <CreationDate/>
  <Id>073fe9c2-5983-4a46-9974-60804b8a6349</Id>
  <Latest>TRUE</Latest>
  <Name>object_name</Name>
  <Type>DATA</Type>
</Data>
```

VERIFY PHYSICAL PLACEMENT

Description

Get the list of media on which the specified objects are physically located. A 404, not found, error is returned if one or more objects either does not exist, or has no physical placement. Therefore, if you don't receive an error, you know that all objects have a physical placement without having to parse the entire response. If the `full_details` request parameter is specified, physical placement is shown on a per object piece basis. If the `full_details` request parameter is not specified, a summary physical placement is provided. Use the `storage_domain_id` parameter to verify the physical placement of the objects within the specified storage domain only.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket/{bucket name}?operation=verify_physical_placement[&full_details][&storage_domain={string}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to verify physical placement. Value: VERIFY_PHYSICAL_PLACEMENT	yes
full_details	If included, the list also contains information about which objects are on each tape.	no
storage_domain	The UUID, name, or other unique attribute for the storage domain.	no

Request Elements

An XML payload must be sent to describe the objects, formatted as follows:

```
<Objects>
  <Object Name="{string}" Version_Id="{string}/>
  <Object Name="{string}" Version_Id="{string}/>
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
Object	The container for information about one object or object part.	yes
Name	The name of an object to eject. All objects in the list must be in the same bucket.	yes
Version_Id	The UUID for the version of the object.	no

Responses

Response Elements

```
<Data>
  <Object Id="{string}" InCache="TRUE|FALSE" Latest="TRUE|FALSE"
    Length="{64-bit integer}" Name="{string}"
    Offset="{64-bit integer}" VersionId="{string}">
    (only if full_details is included)
  <PhysicalPlacement> (only if full_details is included)
    <AzureTargets>
      <AzureTarget>
        <AccountKey>{string}</AccountKey>
        <AccountName>{string}</AccountName>
        <AutoVerifyFrequencyInDays>
          {integer}
        </AutoVerifyFrequencyInDays>
        <CloudBucketPrefix>{string}</CloudBucketPrefix>
        <CloudBucketSuffix>{string}</CloudBucketSuffix>
        <DefaultReadPreference>
          MINIMUM_LATENCY|AFTER_ONLINE_POOL|
          AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
          LAST_RESORT|NEVER
        </DefaultReadPreference>
        <Https>TRUE|FALSE</Https>
        <Id>{string}</Id>
        <LastFullyVerified/>
        <Name>{string}</Name>
        <PermitGoingOutOfSync>
          TRUE|FALSE
        </PermitGoingOutOfSync>
```

```

    <Quiesced>NO|PENDING|YES</Quiesced>
    <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
  </AzureTarget>
  ...
</AzureTargets>
<Ds3Targets>
  <Ds3Target>
    <AccessControlReplication>
      NONE|USERS
    </AccessControlReplication>
    <AdminAuthId>{string}</AdminAuthId>
    <AdminSecretKey>{string}</AdminSecretKey>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DataPathHttps>TRUE|FALSE</DataPathHttps>
    <DataPathPort>{16-bit integer}</DataPathPort>
    <DataPathProxy>{string}</DataPathProxy>
    <DataPathVerifyCertificate>
      TRUE|FALSE
    </DataPathVerifyCertificate>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL
      |AFTER_NEARLINE_POOL
      |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
    </DefaultReadPreference>
    <Id>{string}</Id>
    <Name>{string}</Name>
    <PermitGoingOutOfSync>
      TRUE|FALSE
    </PermitGoingOutOfSync>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <ReplicatedUserDefaultDataPolicy>
      {string}
    </ReplicatedUserDefaultDataPolicy>
    <State>ONLINE|OFFLINE</State>
  </Ds3Target>
  ...
</Ds3Targets>
<Pools>
  <Pool>
    <AssignedToStorageDomain>
      TRUE|FALSE
    </AssignedToStorageDomain>

```

```

    <AvailableCapacity>
      {64-bit integer}
    </AvailableCapacity>
    <BucketId>{string}</BucketId>
    <Guid>{string}</Guid>
    <Health>OK|DEGRADED</Health>
    <Id>{string}</Id>
    <LastAccessed>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastAccessed>
    <LastModified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastModified>
    <LastVerified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastVerified>
    <Mountpoint>/{string}</Mountpoint>
    <Name>{string}</Name>
    <PartitionId>{string}</PartitionId>
    <PoweredOn>TRUE|FALSE</PoweredOn>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <ReservedCapacity>
      {64-bit integer}
    </ReservedCapacity>
    <State>
      NORMAL|FOREIGN|IMPORT_IN_PROGRESS|
      IMPORT_PENDING|LOST
    </State>
    <StorageDomainMemberId>
      {string}
    </StorageDomainMemberId>
    <TotalCapacity>{64-bit integer}</TotalCapacity>
    <Type>NEARLINE|ONLINE</Type>
    <UsedCapacity>{64-bit integer}</UsedCapacity>
  </Pool>
  ...
</Pools>
<S3Targets>
  <S3Target>
    <AccessKey>{string}</AccessKey>
    <AutoVerifyFrequencyInDays>
      {integer}
    </AutoVerifyFrequencyInDays>
    <CloudBucketPrefix>{string}</CloudBucketPrefix>
  </S3Target>
</S3Targets>

```

```

<CloudBucketSuffix>{string}</CloudBucketSuffix>
<DataPathEndPoint>{string}</DataPathEndPoint>
<DefaultReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|
    AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
    LAST_RESORT|NEVER
</DefaultReadPreference>
<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified>{string}</LastFullyVerified>
<Name>{string}</Name>
<NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
<OfflineDataStagingWindowInTb>
    {64-bit integer}
</OfflineDataStagingWindowInTb>
<PermitGoingOutOfSync>
    TRUE|FALSE
</PermitGoingOutOfSync>
<ProxyDomain>{string}</ProxyDomain>
<ProxyHost>{string}</ProxyHost>
<ProxyPassword>{string}</ProxyPassword>
<ProxyPort>{64-bit integer}</ProxyPort>
<ProxyUsername>{string}</ProxyUsername>
<Quiesced>NO|PENDING|YES</Quiesced>
<Region>
    US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|
    EU_WEST_1|EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|
    AP_SOUTHEAST_1|AP_SOUTHEAST_2|AP_NORTHEAST_1|
    AP_NORTHEAST_2|SA_EAST_1|CN_NORTH_1|GOV_CLOUD|
    CA_CENTRAL_1
</Region>
<SecretKey>{string}</SecretKey>
<StagedDataExpirationInDays>
    {64-bit integer}
</StagedDataExpirationInDays>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</S3Target>
...
</S3Targets>

```



```
<Tapes>
  <Tape>
    <AssignedToStorageDomain>
      TRUE | FALSE
    </AssignedToStorageDomain>
    <AvailableRawCapacity>
      {64-bit integer}
    </AvailableRawCapacity>
    <BarCode>{string}</BarCode>
    <BucketId>{string}</BucketId>
    <DescriptionForIdentification>
      {string}
    </DescriptionForIdentification>
    <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
    <EjectLabel>{string}</EjectLabel>
    <EjectLocation>{string}</EjectLocation>
    <EjectPending>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </EjectPending>
    <FullOfData>TRUE | FALSE</FullOfData>
    <Id>{string}</Id>
    <LastAccessed>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastAccessed>
    <LastCheckpoint>{string}</LastCheckpoint>
    <LastModified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastModified>
    <LastVerified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastVerified>
    <PartiallyVerifiedEndOfTape>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </PartiallyVerifiedEndOfTape>
    <PartitionId>{string}</PartitionId>
```

```

<PreviousState>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|
    BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_
    PROTECTION|DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
    FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
    PROGRESS|IMPORT_PENDING|INCOMPATIBLE|
    LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_
    INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
    PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|
    BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_
    PROTECTION|DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
    FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
    PROGRESS|IMPORT_PENDING|INCOMPATIBLE|
    LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_
    INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
    PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>
    {string}
</StorageDomainMemberId>
<TakeOwnershipPending>
    TRUE|FALSE
</TakeOwnershipPending>
<TotalRawCapacity>
    {64-bit integer}
</TotalRawCapacity>
<Type>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|
    TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|
    TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN
</Type>

```

```

    <VerifyPending>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </VerifyPending>
    <WriteProtected>TRUE | FALSE</WriteProtected>
  </Tape>
  ...
</Tapes>
</PhysicalPlacement>
</Object>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description	Only if full_details included
Data	A container for the response.	
Object	The container for information about one object.	yes
Id	The UUID for the object.	yes
InCache	Whether the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE	yes
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE	yes
Length	The length in bytes of the object.	yes
Name	The name of the object.	yes
Offset	The offset in bytes from the start of the object.	yes
VersionId	The UUID of the version of the object.	yes
PhysicalPlacement	The container for the list of tapes containing the object.	yes
AzureTargets	The container for information about all Azure targets with degraded objects.	
AzureTarget	The container for information about one Azure target with a degraded object.	

Parameter	Description	Only if full_details included
AccountName	The account name for the Microsoft Azure account. Note: You can not use the same Account Name for multiple Microsoft Azure targets.	
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.	
CloudBucketPrefix	The Azure target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Azure target.	
CloudBucketSuffix	The Azure target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Azure target.	
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON-EJECTABLE_TAPE, LAST_RESORT, NEVER. See read_preference on page 455.	
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE.	
Id	The UUID for the Azure target instance.	
LastFullyVerified	The date and time the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
Name	The name for the Azure target.	

Parameter	Description	Only if full_details included
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for Azure targets.	
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES	
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	
Ds3Targets	The container for information about all BlackPearl targets.	
Ds3Target	The container for information about one BlackPearl target.	
AccessControl Replication	The access control that is replicated to the BlackPearl target. Values: NONE — No access control is replicated. USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.	
AdminAuthId	The S3 access ID assigned to an Administrator.	
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .	
DataPathEndPoint	The IPv4 address or DNS name for the data path of the BlackPearl target.	
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE	
DataPathPort	The value of the port on which the target BlackPearl gateway's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.	

Parameter	Description	Only if full_details included
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE	
DefaultRead Preference	When it is preferable to read from the BlackPearl target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	
Id	The UUID for the BlackPearl target instance. Note: If a BlackPearl target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.	
Name	The name for the BlackPearl target.	
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time.	
Quiesced	Whether the BlackPearl target is in a temporarily inactive state. Values: NO, PENDING, YES	

Parameter	Description	Only if full_details included
ReplicatedUser DefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.	
State	The state of the BlackPearl target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	
Pools	The container for information about all pools.	
Pool	The container for information about one pool.	
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE	
AvailableCapacity	The amount of unused capacity on the pool in bytes.	
BucketId	The UUID for the bucket to which the pool is assigned.	
Guid	The ZFS identifier for the pool.	
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED	
Id	The UUID for the pool.	
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.	
Name	The name for the pool.	
PartitionId	The UUID of the pool partition.	

Parameter	Description	Only if full_details included
PoweredOn	Whether the pool is powered on. Values: TRUE , FALSE	
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO , PENDING , YES	
ReservedCapacity	The capacity reserved to ensure pool performance.	
State	The status of the pool. See State on page 600 .	
StorageDomain MemberId	The UUID for the storage domain member.	
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.	
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	
UsedCapacity	The amount of used capacity on the pool in bytes.	
S3Targets	The container for information about all Amazon S3 targets with degraded objects.	
S3Target	The container for information about one Amazon S3 target with a degraded object.	
AccessKey	The S3 Access Key of the user for the Amazon S3 account.	
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.	
CloudBucketPrefix	The S3 target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.	

Parameter	Description	Only if full_details included
CloudBucketSuffix	The S3 target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.	
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.	
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455 .	
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE , FALSE .	
Id	The UUID for the Amazon S3 target instance.	
LastFullyVerified	The date and time data on the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
Name	The name for the Amazon S3 target.	
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL , AWS_S3	
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.	
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474 . Note: This parameter is deprecated for S3 targets.	

Parameter	Description	Only if full_details included
ProxyDomain	The domain name for the proxy server.	
ProxyHost	The host name or IP address for the proxy server to which the BlackPearl gateway connects.	
ProxyPassword	The password used when connecting through the proxy server.	
ProxyPort	The proxy server port through which the BlackPearl gateway connects.	
ProxyUsername	The username used when connecting through the proxy server.	
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO , PENDING , YES	
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1 , US_EAST_2 , US_WEST_1 , US_WEST_2 , EU_WEST_1 , EU_WEST_2 , EU_CENTRAL_1 , AP_SOUTH_1 , AP_SOUTHEAST_1 , AP_SOUTHEAST_2 , AP_NORTHEAST_1 , AP_NORTHEAST_2 , SA_EAST_1 , CN_NORTH_1 , GOV_CLOUD , CA_CENTRAL_1	
SecretKey	The secret key associated with the AccessKey.	
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire.	
State	The state of the Amazon S3 target. Values: ONLINE , OFFLINE , LIMITED_ACCESS	
Tapes	The container for information about all tapes.	
Tape	The container for information about the tape containing the object.	
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE	

Parameter	Description	Only if full_details included
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.	
BarCode	The barcode on the label of the tape cartridge.	
BucketId	The UUID for the bucket to which the tape is assigned.	
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.	
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.	
EjectLabel	The user-entered information to assist in the handling of the tape.	
EjectLocation	The user-entered information to describe where the ejected tape can be located.	
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.	
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE	
Id	The UUID for the tape.	
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.	

Parameter	Description	Only if full_details included
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.	
PartitionId	The UUID for the partition to which the tape belongs.	
PreviousState	The previous status of the tape. See State on page 664 .	
Role	The role assigned to the tape. Values: Normal , Test	
SerialNumber	The manufacturer-assigned serial number for the tape.	
State	The status of the tape. See State on page 664 .	
StorageDomain MemberId	The UUID for the storage domain member.	
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current BlackPearl gateway. • FALSE — The tape was imported successfully. 	
TotalRawCapacity	The total raw capacity of the tape in bytes.	

Parameter	Description	Only if full_details included
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE	

Example

Sample Request

This request returns a list of which objects specified in the payload are on which media.

```
GET http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=get_physical_placement&full_details HTTP/1.1
<Objects>
  <Object Name="object1"/>
</Objects>
```

Sample Response

HTTP/1.1 200 OK

```

<Data>
  <Object Id="72886aed-6865-4173-b87f-a60e1f82966e"
    InCache="FALSE" Latest="TRUE" Length="10" Name="o4"
    Offset="0" VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
    <PhysicalPlacement>
      <AzureTargets/>
      <Ds3Targets/>
      <Pools>
        <Pool>
          <AssignedToStorageDomain>
            false
          </AssignedToStorageDomain>
          <AvailableCapacity>10000</AvailableCapacity>
          <BucketId/>
          <Guid>d276b9a9-02e4-4528-972d-8e621719510c</Guid>
          <Health>OK</Health>
          <Id>8b5a44e5-cfe8-4021-a745-bc70832cd6b5</Id>
          <LastAccessed/>
          <LastModified/>
          <LastVerified/>
          <Mountpoint>/mountpoint-0</Mountpoint>
          <Name>p1</Name>
          <PartitionId/>
          <PoweredOn>true</PoweredOn>
          <Quiesced>NO</Quiesced>
          <ReservedCapacity>0</ReservedCapacity>
          <State>NORMAL</State>
          <StorageDomainMemberId>
            db43b9ee-f2a5-4e8d-8620-f7aa14508bba
          </StorageDomainMemberId>
          <TotalCapacity>0</TotalCapacity>
          <Type>NEARLINE</Type>
          <UsedCapacity>20000</UsedCapacity>
        </Pool>
      </Pools>
      <S3Targets/>
      <Tapes/>
    </PhysicalPlacement>
  </Object>
</Data>

```

CHAPTER 7 - JOB OPERATIONS

This chapter provides detailed information for operations performed on jobs and job chunks. These operations set up bulk PUT, GET, and VERIFY operations.

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DS3 BULK OPERATIONS OVERVIEW

To more efficiently work with deep storage and accommodate very large object sizes on a single storage device, DS3 provides an alternative method of doing object GET and PUT operations as well as VERIFY operations. This section describes how the bulk transfer strategy works.

Processing a Bulk GET Job

The first step in creating a bulk GET job is to issue a [Create Bulk GET](#) request (see [page 165](#)). The Create Bulk GET request specifies the bucket name and a list of object names.

When the objects were written to deep storage, the BlackPearl gateway organized them for efficient transfer both when writing them and when reading them back later. The Create Bulk GET response provides a job ID and a list of chunks, where each chunk has a list of objects or object parts. For each object part, the response provides the object name, offset, and length.

The client should then issue a [Get Job Chunks Ready for Processing](#) request (see [page 222](#)) using the job ID. The response is in the same format as the Create Bulk GET response, but it only lists chunks that are ready for the client to retrieve. If the list is empty, then the BlackPearl gateway provides an HTTP Retry-After header with the number of seconds the client should wait before issuing the request again.

Finally, the client should GET all of the object parts in the available chunks and repeat this process until all chunks are transferred. The client can use any level of concurrency when transferring object parts within a chunk.

The GET object operation used in the DS3 API is an extended version of the Amazon S3 GET object operation. While the Amazon S3 version of the GET object request transfers a single object or a number of object parts of a single object, the DS3 API version transfers up to 500,000 objects or object parts, allowing the BlackPearl gateway to efficiently organize each individual object or object part transfer into job chunks.

The client may need to issue multiple GET requests for a single object if it has been broken up into multiple pieces due to its large size. For example, in the Create Bulk GET request [Sample Response on page 171](#), the BlackPearl gateway split the object “test.aaf” into one 100 GB part and one 50 GB part. If you want to retrieve test.aaf, you must GET the first 100 GB, specifying the job ID and an offset of 0, followed by getting the remaining 50 GB, specifying the job ID and an offset of 107374182400 (since 100 GB = $100 \times (2^{30})$).

Processing a Bulk PUT Job

The steps for processing a bulk PUT job are similar to the steps for a bulk GET job. The first step in creating a bulk PUT job is to issue a [Create Bulk PUT](#) request (see [page 172](#)). The Create Bulk PUT request specifies the bucket name and a list of object names and sizes.

The BlackPearl gateway then breaks up the objects and organizes them for efficient transfer. The Create Bulk PUT response provides a job ID and a list of chunks, where each chunk has a list of objects or object parts. For each object part, the response provides the object name, offset, and length.

The PUT object operation used in the DS3 API is an extended version of the Amazon S3 PUT object operation. While the Amazon S3 version of the PUT object request transfers entire objects, the DS3 API version transfers parts of an object as defined by a byte offset and a byte length. The client may need to specify multiple PUT operations per object.

For example, if you want to PUT an object that is 150 GB, the BlackPearl gateway splits that object into one 100 GB part (the largest object part length for a bulk PUT) and one 50 GB part. You must PUT the first 100 GB, specifying the job ID and an offset of 0, followed by putting the remaining 50 GB, specifying the job ID and an offset of 107374182400 (since 100 GB = $100 \times (2^{30})$). The offset to use is specified in the response to the Create Bulk PUT. The length of the object part you are transferring is specified by the Content-Length HTTP request header in the PUT object request.

For each job chunk, the client should issue a [Get Job Chunks Ready for Processing](#) request (see [page 222](#)) using the job ID. This will allocate a working window of job chunks, if possible, and return a list of the job chunks that the client can upload. The client should PUT all of the object parts from the list of job chunks returned and repeat this process until all chunks are transferred. Chunks must be sent by the client in order; however, objects within a given chunk may be sent in any order.

The following is a conceptual code example:

```
while ( true ) {
    ready_chunks, http_return_code =
        GetJobChunksReadyForClientProcessing
    if ( 410 == http_return_code ) {
        // we're done
        break;
    }
}
```

```
for ( object piece in ready_chunks ) {
    put_object(object,offset,length)
}
}
```

If the [Get Job Chunks Ready for Processing](#) request (see [page 222](#)) returns an empty list, then the server's cache is currently saturated and the client must wait before sending more data. The client should wait the number of seconds specified in the Retry-After HTTP response header.

Processing a Bulk VERIFY Job

To process a bulk VERIFY job, issue a [Create VERIFY Job](#) request (see [page 180](#)). The Create VERIFY Job request specifies the bucket name and a list of object names. The job reads the data for each object from the permanent data store and verifies that the CRC of the data read matches the expected CRC. No additional requests are required.

ALLOCATE JOB CHUNK

Description

Allocate a specific job chunk that is part of a PUT job before beginning the PUT operation. This avoids the HTTP 307 retries on the object PUTs and increases performance.

Notes:

- For most purposes, it is better to use [Get Job Chunks Ready for Processing](#) on [page 222](#) instead of this request.
- Aggregating PUT jobs (see [aggregating on page 173](#)) are always entirely pre-allocated. Submitting this request will return a 404 error.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/job_chunk/{job chunk id}/?operation=ALLOCATE
```

To Determine the UUID for the job chunk, see [Create Bulk PUT on page 172](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is allocate. Value: ALLOCATE	yes

Responses

Response Elements

```

<Objects
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}"
  NodeId="{string}">
  <Object
    Id="{string}"
    InCache="TRUE|FALSE"
    Length="{64-bit integer}"
    Name="{string}"
    Offset="{64-bit integer}"
    VersionId="{string}"/>
    ...
  </Object>
</Objects>

```

where the response elements are defined as follows:

Parameter	Description
Objects	The container for the response.
ChunkID	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
NodeId	The UUID for the node.
Object	The container for object information.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Length	The length in bytes of the object or part of the object.

Parameter	Description
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request allocates the job chunks for the job with the UUID 38ada8a6-0116-42ac-9b58-a95cc89ddec9.

```
PUT http://blackpearl-hostname/_rest_/job_chunk/38ada8a6-0116-42ac-9b58-
a95cc89ddec9/?operation=ALLOCATE
```

Sample Response

```
HTTP/1.1 200 OK
<Objects ChunkId="5721e057-036e-4eda-8b9e-f842cc667352"
  ChunkNumber="1"
  NodeId="86aa6d66-2438-49cd-9dba-0b17c109daab">
  <Object
    Id="Cabernet-9e86-474a-8c83-e2b425b8ad1d" InCache="FALSE"
    Length="1024" Name="test" Offset="0"
    VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
```

CANCEL ACTIVE JOB

Description

Cancel a job that is in progress. Any objects in the job that were written in their entirety to physical data stores are retained. Any objects in the job that were received in their entirety in cache are retained unless the force flag is used. Additionally, if the force flag is used, any objects in the job that were partially written to physical data stores (regardless of whether or not they are completely written to cache) are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. The BlackPearl gateway does not expect any more objects from the job.

Note: This command is an alias for [Cancel Job on page 155](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/active_job/{job_id}/?force
```

To determine the UUID for a job, see [Get Active Jobs](#) on page 190.

Request Parameters

Parameter	Description	Required
force	Any objects in the job that were partially written to physical data stores are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. Additionally, objects received in cache are also deleted. Note: Objects written entirely to the physical data stores are not deleted. If you need to ensure that all objects from a job are deleted from the BlackPearl gateway after canceling the job, issue a delete object command for each of the objects.	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the job)
- 404: Not Found

Example

Sample Request

This request cancels the job with the UUID e140e1a3-4938-4615-b08d-6dd7a7e79e4f.

```
DELETE http://blackpearl-hostname/_rest_/active_job/e140e1a3-4938-4615-b08d-6dd7a7e79e4f/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CANCEL ACTIVE JOBS

Description

Cancel all jobs that are in progress. Any objects in the jobs that were written in their entirety to physical data stores are retained. Any objects in the jobs that were received in their entirety in cache are retained unless the force flag is used. Additionally, if the force flag is used, any objects in the jobs that were partially written to physical data stores (regardless of whether or not they are completely written to cache) are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. The BlackPearl gateway does not expect any more objects from the jobs. Use parameters to cancel a subset of the jobs.

Note: This command is an alias for [Cancel Jobs on page 157](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/active_job/?force[&bucket_id={string}]
[&request_type=PUT|GET|VERIFY]
```

Request Parameters

Parameter	Description	Required
force	Any objects in the jobs that were partially written to physical data stores are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. Additionally, objects received in cache are also deleted. Note: Objects written entirely to the physical data stores are not deleted. If you need to ensure that all objects from a job are deleted from the gateway after canceling the job, issue a delete object command for each of the objects.	yes
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
request_type	Type of job request. Values: GET, PUT, VERIFY	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the jobs)

Example

Sample Request

This request cancels all jobs in progress.

```
DELETE http://blackpearl-hostname/_rest_/job/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CANCEL JOB

Description

Cancel a job that is in progress. Any objects in the job that were written in their entirety to physical data stores are retained. Any objects in the job that were received in their entirety in cache are retained unless the force flag is used. Additionally, if the force flag is used, any objects in the job that were partially written to physical data stores (regardless of whether or not they are completely written to cache) are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. The BlackPearl gateway does not expect any more objects from the job.

Note: This command is an alias for [Cancel Active Job](#) on page 152.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job/{job_id}/?force
```

To determine the UUID for a job, see [Get Jobs on page 229](#).

Request Parameters

Parameter	Description	Required
force	Any objects in the job that were partially written to physical data stores are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. Additionally, objects received in cache are also deleted. Note: Objects written entirely to the physical data stores are not deleted. If you need to ensure that all objects from a job are deleted from the gateway after canceling the job, issue a delete object command for each of the objects.	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the job)
- 404: Not Found

Example

Sample Request

This request cancels the job with the UUID 38ada8a6-0116-42ac-9b58-a95cc89ddec9.

```
DELETE http://blackpearl-hostname/_rest_/job/38ada8a6-0116-42ac-9b58-a95cc89ddec9/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```


CANCEL JOBS

Description

Cancel all jobs that are in progress. Any objects in the jobs that were written in their entirety to physical data stores are retained. Any objects in the jobs that were received in their entirety in cache are retained unless the force flag is used. Additionally, if the force flag is used, any objects in the jobs that were partially written to physical data stores (regardless of whether or not they are completely written to cache) are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. The BlackPearl gateway does not expect any more objects from the jobs. Use parameters to cancel a subset of the jobs.

Note: This command is an alias for [Cancel Active Jobs on page 154](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job/?force[&bucket_id={string}][&request_type=PUT|GET|VERIFY]
```

Request Parameters

Parameter	Description	Required
force	Any objects in the jobs that were partially written to physical data stores are deleted and any space the object pieces consumed on physical data stores are marked as eligible for reclamation. Additionally, objects received in cache are also deleted. Note: Objects written entirely to the physical data stores are not deleted. If you need to ensure that all objects from a job are deleted from the gateway after canceling the job, issue a delete object command for each of the objects.	yes
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
request_type	Type of job request. Values: GET , PUT , VERIFY	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the jobs)

Example

Sample Request

This request cancels all jobs in progress.

```
DELETE http://blackpearl-hostname/_rest_/job/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAR CANCELED JOBS

Description

Clears the canceled job history. Jobs are automatically cleared from the history after 30 days.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/canceled_job/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request clears the canceled jobs history.

```
DELETE http://blackpearl-hostname/_rest_/canceled_job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAR COMPLETED JOBS

Description

Clears the completed jobs history. Jobs are automatically cleared from the history after 30 days.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/completed_job/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request clears the completed jobs history.

```
DELETE http://blackpearl-hostname/_rest_/completed_job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLOSE AGGREGATING JOB REQUEST

Description

Closes an existing aggregating job so that no additional PUTs or GETs are appended to it. See [aggregating on page 165](#) for more information about aggregating jobs.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/job/{job UUID or other unique identifier}?CLOSE_AGGREGATING_JOB
```

To determine the UUID for a job, see [Get Jobs on page 229](#).

Request Parameters

Parameter	Description	Required
close_aggregating_job	Included to indicate a close aggregating job operation.	yes

Responses

Response Elements

```

<MasterObjectList
  Aggregating="TRUE|FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER|NONE"
  CompletedSizeInBytes="{64-bit integer}"
  EntirelyInCache="TRUE|FALSE"
  JobId="{string}"
  Naked="TRUE|FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
  RequestType="GET"
  StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
  Status="IN_PROGRESS|COMPLETED|CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node EndPoint="{string}" Id="{string}"/>
  </Nodes>
  <Objects>
    ChunkId="{string}"
    ChunkNumber="{32-bit integer}">
    <Object Id="{string}" InCache="TRUE|FALSE"
      Latest="TRUE|FALSE" Length="{64-bit integer}"
      Name="{string}" Offset="{64-bit integer}"
      VersionId="{string}"/>
    ...
  </Objects>
  ...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=GET</code> , this is the amount of data either in cache originally, or loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client.
EntirelyInCache	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
RequestType	Type of job request. Values: GET
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request ends aggregation for the job with the UUID 78dba377-a02a-4c15-b2a1-412514342f17.

```
PUT http://blackpearl-hostname/_rest_/job/78dba377-a02a-4c15-b2a1-412514342f17/?CLOSE_AGGREGATING_JOB HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket1"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="78dba377-a02a-4c15-b2a1-412514342f17"
  Naked="FALSE"
  Name="GetJob"
  OriginalSizeInBytes="0"
  Priority="HIGH"
  RequestType="GET"
  StartDate="2017-06-05T17:59:08.000Z"
  Status="IN_PROGRESS"
  UserId="a6a04b3d-960a-4799-9c88-6801f5cf5449"
  UserName="user_name">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="aed40ca0-5289-49ca-9cd9-cf5a7559a1db"/>
  </Nodes>
  <Objects>
    ChunkId="a909e72e-a96a-4c3e-95a3-f3472e14ae17"
    ChunkNumber="1">
    <Object Id="2ee4f397-c169-4a59-96cc-a07280412f43"
      InCache="FALSE" Latest="TRUE" Length="10"
      Name="o1" Offset="10"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
</MasterObjectList>
```


CREATE BULK GET

Description

Create a job to stream GET object requests. See [Processing a Bulk GET Job on page 148](#) for an overview of the process.



IMPORTANT The BlackPearl gateway processes a maximum of 1,000 concurrent active jobs.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket UUID or
name}?operation=START_BULK_GET[&aggregating=TRUE|FALSE][&chunk_client_processing_
order_guarantee=IN_ORDER|NONE][&dead_job_cleanup_allowed=TRUE|FALSE][&implicit_job_
id_resolution=TRUE|FALSE][&name={string}][&priority=URGENT|HIGH|NORMAL|LOW]
[&protected=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to start a bulk GET. Value: START_BULK_GET	yes
aggregating	Whether or not to aggregate jobs. When selected, if additional GET jobs using the same bucket and chunk_client_processing_order_guarantee are created within 30 minutes of the initial job creation, they are appended to the initial job to create a larger job. Values: TRUE, FALSE (default) Notes: <ul style="list-style-type: none"> Do not use aggregating for jobs larger than 50 GB. The client must be able to handle the changing job structure to use this feature. Data is not written to tape storage domains until the 30 minute aggregation time is complete. 	no

Parameter	Description	Required
chunk_client_processing_order_guarantee	Specifies whether the job chunks must be processed in order. Setting a value of NONE will achieve maximum performance, but requires the client to get chunks as they become available, even if they become available out of order. Values: IN_ORDER , NONE Default: Configured in the data policy for the bucket.	no
dead_job_cleanup_allowed	Whether or not a job can be canceled or truncated automatically after 24 hours of inactivity. Values: TRUE (default), FALSE .	no
implicit_job_id_resolution	Whether GET requests that are part of this job determine the job ID implicitly (TRUE), or must specify the job ID (FALSE). Implicitly resolving a GET to a job is not always reliable. For example, if two clients GET the same object using two different jobs, implicit resolution may result in the wrong job marking the GET complete. Clients that are aware of the job ID are strongly encouraged to explicitly provide the job ID and leave <code>implicit_job_id_resolution=FALSE</code> . Values: TRUE , FALSE (default)	no
name	A name to assign to the job for tracking.	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with Priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT , HIGH , NORMAL , LOW Default: Configured in the data policy for the bucket.	no
protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE , FALSE (default).	no

Request Elements

An XML payload, formatted as follows, must be sent to describe the GET job to create:

```
<Objects
  <Object Name="{string}" Length="{64-bit integer}"
    Offset="{64-bit integer}" Version_Id="{string}"/>
  ...
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
Object	The container for information about one object.	yes
Name	The name of an object to GET. All objects in the list must be in the same bucket.	yes
Length	The length in bytes to get.	no
Offset	The offset in bytes from the start of the object to start the get.	no
Version_Id	The UUID for the version of the object.	no

Responses

Response Elements

```
<MasterObjectList
  Aggregating="TRUE | FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER | NONE"
  CompletedSizeInBytes="{64-bit integer}"
  DeadJobCleanupAllowed="TRUE | FALSE"
  EntirelyInCache="TRUE | FALSE"
  JobId="{string}"
  Naked="TRUE | FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND"
  Protected="TRUE | FALSE"
  RequestType="GET"
  StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
  Status="IN_PROGRESS | COMPLETED | CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node EndPoint="{string}" Id="{string}"/>
  </Nodes>
```

```

<Objects
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}">
  <Object Id="{string}" InCache="TRUE|FALSE"
    Latest="TRUE|FALSE" Length="{64-bit integer}"
    Name="{string}" Offset="{64-bit integer}"
    VersionId="{string}"/>
    ...
  </Objects>
  ...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the aggregating request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=GET</code> , this is the amount of data either in cache originally, or loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client.
DeadJobCleanupAllowed	
EntirelyInCache ¹	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.

1) Not always included for GET jobs.

Parameter	Description
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).
RequestType	Type of job request. Values: GET
StartDate	The date and time the job was started in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS — The job is currently running. • COMPLETED — The job completed. • CANCELED — The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.

Parameter	Description
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE , FALSE
Latest	Whether this version of the object is the latest. Values: TRUE , FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID for the version of the object.

Error Response

If one or more objects requested only exist on tapes outside of the library, then the following response is provided:

```
<Error>
  <Code>CONFLICT</Code>
  <HttpErrorCode>409</HttpErrorCode>
  <Message>
    RPC DataPlanner.createGetJob<60821823> FAILED:
    Some of the data requested is offline (e.g. ejected, offline,
    or quiesced) and must first be brought online. Online:
    [TEST079L7]
  </Message>
  <Resource>/_rest_/bucket/eject</Resource>
  <ResourceId>40727470</ResourceId>
</Error>
```

Import and online the tape with the requested barcode. In the example above, the required tape is TEST079L7.

Example

Sample Request

This request creates a GET job for two objects in the bucket "bucket1".

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=start_bulk_
get&name="GetJob" HTTP/1.1
```

```
<Objects
  <Object Name="o1" Length="10" Offset="10" Version_Id="1"/>
  ...
</Objects>
```

Sample Response

HTTP/1.1 200 OK

```
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket1"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  DeadJobCleanupAllowed="FALSE"
  EntirelyInCache="FALSE"
  JobId="78dba377-a02a-4c15-b2a1-412514342f17"
  Naked="FALSE"
  Name="GetJob"
  OriginalSizeInBytes="0"
  Priority="HIGH"
  Protected="TRUE"
  RequestType="GET"
  StartDate="2015-10-07T22:33:17.000Z"
  Status="IN_PROGRESS"
  UserId="a6a04b3d-960a-4799-9c88-6801f5cf5449"
  UserName="user_name">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="aed40ca0-5289-49ca-9cd9-cf5a7559a1db"/>
  </Nodes>
  <Objects>
    ChunkId="a909e72e-a96a-4c3e-95a3-f3472e14ae17"
    ChunkNumber="1">
    <Object Id="2ee4f397-c169-4a59-96cc-a07280412f43"
      InCache="FALSE" Latest="TRUE" Length="10"
      Name="o1" Offset="10"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
</MasterObjectList>
```

CREATE BULK PUT

Description

Create a job to stream PUT object requests. Clients should use this before putting objects to physical data stores. See [Processing a Bulk PUT Job on page 149](#) for an overview of the process.

When this request is issued, an idle timer starts and the reservation expires after 24 hours elapse. The timer is reset by performing an IO operation (such as a `PUT Object` operation) or by issuing a Modify Job request (see [Modify Job on page 239](#)), even if you do not modify anything.



IMPORTANT The BlackPearl gateway processes a maximum of 1,000 concurrent active jobs.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket UUID or
name}?operation=START_BULK_PUT[&aggregating=TRUE|FALSE][&dead_job_cleanup_
allowed=TRUE|FALSE][&force][&ignore_naming_conflicts][&implicit_job_id_
resolution=TRUE|FALSE][&max_upload_size={64-bit integer}][&minimize_spanning_across_
media=TRUE|FALSE][&name={string}][&pre_allocate_job_space]
[&priority=URGENT|HIGH|NORMAL|LOW][&protected=TRUE|FALSE][&verify_after_
write=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to start a bulk PUT. Value: START_BULK_PUT	yes
dead_job_cleanup_allowed	Whether or not a job can be canceled or truncated automatically after 24 hours of inactivity. Values: TRUE (default), FALSE .	no

Parameter	Description	Required
aggregating	<p>Whether or not to aggregate jobs. When selected, if additional PUT jobs using the same <code>bucket</code> and <code>chunk_client_processing_order_guarantee</code> are created within 30 minutes of the initial job creation, they are appended to the initial job to create a larger job.</p> <p>Values: TRUE, FALSE (default)</p> <p>Notes:</p> <ul style="list-style-type: none"> • Do not use aggregating for jobs larger than 50 GB. • The client must be able to handle the changing job structure to use this feature. • Data is not written to tape storage domains until the 30 minute aggregation time is complete. 	no
force	<p>If included, the PUT job is created even if one or more replication targets the BlackPearl gateway must PUT to are unavailable, or if there are global issues that would likely prevent the completion of the job.</p> <p>Note: Using this parameter is discouraged, and using it for jobs on both source and target BlackPearl gateways at the same time is extremely discouraged. Running jobs on both gateways when they are not able to communicate with each other can create replication conflicts that must be manually resolved.</p> <p>Values: TRUE, FALSE (default)</p>	no
ignore_naming_conflicts	<p>If included, any objects included in the PUT job, that already exist in the bucket, are ignored if the lengths are the same.</p> <p>CAUTION The content of the object is not checked, only the object length. The original object is overwritten. Do not use this parameter unless you are sure that in your data set, a matching object length indicates a matching object.</p>	no
implicit_job_id_resolution	<p>Whether PUT requests that are part of this job determine the job ID implicitly (TRUE), or must specify the job ID (FALSE).</p> <p>Implicitly resolving a PUT to a job is not always reliable. For example, if two clients PUT the same object using two different jobs, implicit resolution may result in the wrong job marking the PUT complete. Clients that are aware of the job ID are strongly encouraged to explicitly provide the job ID and leave <code>implicit_job_id_resolution=FALSE</code>.</p> <p>Values: TRUE, FALSE (default)</p>	no

Parameter	Description	Required
max_upload_size	The maximum size for any object part transferred. The default is 64GB. The maximum is 1TB. Only specify a smaller max_upload_size if the network connection cannot reliably handle large uploads.	no
minimize_spanning_across_media	<p>Whether to minimize spanning across tape media. Minimizing spanning across media is useful when you plan to eject tapes and it is likely that you will retrieve all objects from the PUT job in a single GET job. With this setting, you may only need to import one ejected tape, rather than many tapes, when servicing a GET job.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This setting only applies to tape partitions. • For jobs less than or equal to 1 TB in size, there is an absolute guarantee that the data from the job will never span across multiple tapes. For larger jobs, spanning is minimized, but not completely prevented. You can further reduce the probability of spanning across media by using the CAPACITY write optimization for the storage domains. • Minimizing spanning across media may reduce capacity utilization and performance. <p>Values: TRUE, FALSE (default)</p>	no
name	A name to assign to the job for tracking.	no
pre_allocate_job_space	If included, the space for processing the job is pre-allocated. If there is not enough space available, job creation fails.	no
priority	<p>The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with Priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly.</p> <p>Values: URGENT, HIGH, NORMAL, LOW</p> <p>Default: Configured in the data policy for the bucket.</p>	no
protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).	no
verify_after_write	Whether data for this job is verified after it is written. This parameter overrides the default_verify_after_writes setting in the data policy. Values: TRUE, FALSE (default)	no

Request Elements

An XML payload must be sent to describe the PUT job to create, formatted as follows:

```
<Objects
  WriteOptimization="CAPACITY|PERFORMANCE">
  <Object Name="{string}" Size="{64-bit integer}"/>
  <Object Name="{string}" Size="{64-bit integer}"/>
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
WriteOptimization	<p>Specifies whether job chunks are written as quickly as possible or across as few pieces of media as possible. When CAPACITY mode is used for writing to tape, job chunks are written concurrently to multiple tapes using multiple drives if the tapes being written to are already assigned to the bucket, or there is so much data to write that the gateway knows multiple tapes are needed to write all of the data. When in PERFORMANCE mode, job chunks are written as quickly as possible, even if that means that more tapes are allocated to the bucket than are necessary to write the data. It is better to use CAPACITY mode if the tapes will be ejected after the job completes or if the bucket is written to very rarely and capacity in the library is of concern. PERFORMANCE mode is recommended in all other cases. Pools should generally have a CAPACITY write optimization since pools are very fast and under less contention. It is rare for a pool storage domain to benefit from a PERFORMANCE write optimization.</p> <p>Values: CAPACITY, PERFORMANCE</p> <p>Default: Configured in the data policy for the bucket.</p>	no
Object	The container for information about one object.	yes
Name	<p>The name of an object to PUT. All objects in the list must be PUT in the same bucket.</p> <p>Note: Object_names must follow the Amazon S3 naming restrictions. See Object Key and Metadata for more information.</p>	yes
Size	The size of the object in bytes.	yes

Responses

Response Elements

```

<MasterObjectList
  Aggregating="TRUE|FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER|NONE"
  CompletedSizeInBytes="{64-bit integer}"
  DeadJobCleanupAllowed="TRUE|FALSE"
  EntirelyInCache="TRUE|FALSE"
  JobId="{string}"
  Naked="TRUE|FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
  Protected="TRUE|FALSE"
  RequestType="PUT"
  StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
  Status="IN_PROGRESS|COMPLETED|CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node EndPoint="{string}" Id="{string}" />
  </Nodes>
  <Objects>
    ChunkId="{string}"
    ChunkNumber="{32-bit integer}"
    <Object Id="{string}" InCache="TRUE|FALSE"
      Latest="TRUE|FALSE" Length="{64-bit integer}"
      Name="{string}" Offset="{64-bit integer}"
      VersionId="{string}" />
    ...
  </Objects>
  ...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.

Parameter	Description
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
DeadJobCleanupAllowed	
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores.
EntirelyInCache	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).
RequestType	Type of job request. Values: PUT
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID for the version of the object.

Example

Sample Request

This request creates a job to PUT two objects into the bucket named "bucket1".

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=start_bulk_
put&name="PutJob" HTTP/1.1
<Objects
  WriteOptimization="CAPACITY">
  <Object Name="test.aaf" Length="107426611200"/>
  <Object Name="T950.tif" Length="9572972"/>
</Objects>
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket1" CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="NONE"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="823f7f21-8af4-44fd-b0f0-70c5a0ab52aa"
  Naked="FALSE"
  Name="PutJob"
  OriginalSizeInBytes="0" Priority="LOW" RequestType="PUT"
  StartDate="2015-10-07T22:33:22.000Z" Status="IN_PROGRESS"
  UserId="b332af88-0130-4e4d-bbb5-fac6f3ec1970" UserName="user1">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="a3f5c59e-6bdd-457d-9dde-0ffc7236c7a"/>
  </Nodes>
  <Objects ChunkId="2e0353e1-96d7-42a5-a507-d60f61c28d6e"
    ChunkNumber="1">
    <Object Id="2ee4f397-c169-4a59-96cc-a07280412f43"
      InCache="FALSE" Latest="TRUE" Length="10"
      Name="o2" Offset="0"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
```

```

<Objects ChunkId="e8d5e8b1-2e15-45a5-8b2d-e48a59114a40"
  ChunkNumber="2">
  <Object Id="ce6f4fef-2aa0-49fd-b9a3-1f0bf51e7274"
    InCache="FALSE" Latest="TRUE" Length="10" Name="o1"
    Offset="0"
    VersionId="42ed4ef4-23fc-4f7f-99e6-4fa8b60cf210"/>
</Objects>
</MasterObjectList>

```

CREATE VERIFY JOB

Description

Create a job to verify objects. A VERIFY job reads data from the permanent data store and verifies that the CRC of the data read matches the expected CRC. VERIFY jobs ALWAYS read from the data store - even if the data currently resides in cache.



IMPORTANT The BlackPearl gateway processes a maximum of 1,000 concurrent active jobs.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket UUID or
name}?operation=START_BULK_VERIFY[&aggregating=TRUE|FALSE] [&name={string}]
[&priority=URGENT|HIGH|NORMAL|LOW]

```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to start a bulk VERIFY. Value: START_BULK_VERIFY	yes

Parameter	Description	Required
aggregating	Whether or not to aggregate jobs. When selected, if additional VERIFY jobs using the same bucket and <code>chunk_client_processing_order_guarantee</code> are created within 30 minutes of the initial job creation, they are appended to the initial job to create a larger job. Values: TRUE, FALSE (default) Notes: <ul style="list-style-type: none"> Do not use aggregating for jobs larger than 50 GB. The client must be able to handle the changing job structure to use this feature. Data is not written to tape storage domains until the 30 minute aggregation time is complete. 	no
name	A name to assign to the job for tracking.	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with PRIORITY URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Verify jobs can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW Default: Configured in the data policy for the bucket.	no

Request Elements

An XML payload must be sent to describe the VERIFY job to create, formatted as follows:

```
<Objects
  <Object Name="{string}" Length="{64-bit integer}"
    Offset="{64-bit integer}" Version_Id="{string}"/>
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
Object	The container for information about one object.	yes
Name	The name of an object to verify. All objects in the list must be in the same bucket.	yes

Parameter	Description	Required
Length	The length in bytes of the object.	no
Offset	The offset in bytes from the start of the object to start the get.	no
Version_Id	The UUID for the version of the object.	no

Responses

Response Elements

```

<MasterObjectList
  Aggregating="TRUE|FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER|NONE"
  CompletedSizeInBytes="{64-bit integer}"
  EntirelyInCache="TRUE|FALSE"
  JobId="{string}"
  Naked="TRUE|FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
  RequestType="VERIFY"
  StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
  Status="IN_PROGRESS|COMPLETED|CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node EndPoint="{string}" Id="{string}"/>
  </Nodes>
  <Objects>
    ChunkId="{string}"
    ChunkNumber="{32-bit integer}">
    <Object Id="{string}" InCache="TRUE|FALSE"
      Latest="TRUE|FALSE" Length="{64-bit integer}"
      Name="{string}" Offset="{64-bit integer}"
      VersionId="{string}"/>
    ...
  </Objects>
  ...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=VERIFY</code> , this is the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=VERIFY</code> , this indicates the amount of data with CRCs verified.
EntirelyInCache	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
RequestType	Type of job request. Values: VERIFY
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
Version_Id	The UUID for the version of the object.

Example

Sample Request

This request creates a job to verify two objects in the bucket named "bucket1".

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=START_BULK_VERIFY&name="VerifyJob" HTTP/1.1
<Objects
  WriteOptimization="CAPACITY">
  <Object Name="test.aaf" Length="107426611200"/>
  <Object Name="T950.tif" Length="9572972"/>
</Objects>
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket1"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="NONE"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="28f15f6d-3a14-4f97-b81d-8c2908030e7b"
  Naked="FALSE"
  Name="VerifyJob"
  OriginalSizeInBytes="0"
  Priority="LOW"
  RequestType="VERIFY"
  StartDate="2015-10-07T22:33:22.000Z"
  Status="IN_PROGRESS"
  UserId="9f7b5821-0f66-4bd5-a0e2-d5b944b49a82"
  UserName="user_name">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="f304e3d8-b167-4fd7-bdb2-7f91afab4549"/>
  </Nodes>
```

```
<Objects ChunkId="4d09ce4c-8dc3-43e9-806e-25ac79a3d9b7"
  ChunkNumber="1">
  <Object Id="98e754ac-2015-4c90-bdb3-fc7414e0fde1"
    InCache="FALSE" Latest="TRUE" Length="10" Name="o1"
    Offset="10"
    VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
</Objects>
</MasterObjectList>
```

GET ACTIVE JOB

Description

Get information about the specified active job.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/active_job/{job UUID or other unique
identifier}/
```

To determine the UUID for a job, see [Get Active Jobs on page 190](#).

Responses

Response Elements

```
<Data>
  <Aggregating>TRUE | FALSE</Aggregating>
  <BucketId>{string}</BucketId>
  <CachedSizeInBytes>{64-bit integer}</CachedSizeInBytes>
  <ChunkClientProcessingOrderGuarantee>
    IN_ORDER | NONE
  </ChunkClientProcessingOrderGuarantee>
```

```

<CompletedSizeInBytes>{64-bit integer}</CompletedSizeInBytes>
<CreatedAt>YYYY-MM-DDThh:mm:ss.xxxZ</CreatedAt>
<ErrorMessage>{string}</ErrorMessage>
<Id>{string}</Id>
<ImplicitJobIdResolution>TRUE|FALSE</ImplicitJobIdResolution>
<MinimizeSpanningAcrossMedia>
  TRUE|FALSE
</MinimizeSpanningAcrossMedia>
<Naked>TRUE|FALSE</Naked>
<Name>{string}</Name>
<OriginalSizeInBytes>{64-bit integer}</OriginalSizeInBytes>
<Priority>CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND</Priority>
<Protected>TRUE|FALSE</Protected>
<Rechunked>{YYYY-MM-DDThh:mm:ss.xxxZ}</Rechunked>
<RequestType>GET|PUT|VERIFY</RequestType>
<Restore>YES|NO|PERMANENT_ONLY</Restore>
<Truncated>TRUE|FALSE</Truncated>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the aggregating request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketId	The UUID of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For RequestType=PUT, this is the amount of data successfully transferred to the BlackPearl gateway from the client. For RequestType=GET, this the amount of data either in cache originally, or loaded into cache from the permanent data store. For RequestType=VERIFY, this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE

Parameter	Description
CompletedSizeInBytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
CreatedAt	The date and time the job was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
ErrorMessage	A description of the error.
Id	The UUID for the job.
ImplicitJobIdResolution	Whether GET or PUT requests that are part of this job determine the job ID implicitly (TRUE), or must specify the job ID (FALSE). Values: TRUE, FALSE
MinimizeSpanningAcrossMedia	Whether the PUT job was configured to minimize spanning across media. Values: TRUE, FALSE .
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
protected	The protection status of the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).
Rechunked	The date and time, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> , when a chunk of a GET or VERIFY job had to be rechunked to target other media due to the original target becoming unavailable or corrupt. If this attribute is null, then the job was not rechunked.

Parameter	Description
RequestType	Type of job request. Values: GET, PUT, VERIFY
Restore	Whether the job is restoring existing data such as an IOM job (see iom_enabled on page 1045) or a Stage job (see Stage Objects on page 250). Values: YES, NO, PERMANENT_ONLY
Truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE
UserId	The UUID for the user who initiated the job.

Example

Sample Request

This request gets information about the active job with the UUID 874735d1-3526-4e22-ae21-c3203b03745c.

```
GET http://blackpearl-hostname/_rest_/active_job/874735d1-3526-4e22-ae21-
c3203b03745c/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <Aggregating>FALSE</Aggregating>
  <BucketId>cf8f4bf7-9bf0-4355-b6a7-94d928bf939e</BucketId>
  <CachedSizeInBytes>0</CachedSizeInBytes>
  <ChunkClientProcessingOrderGuarantee>
    IN_ORDER
  </ChunkClientProcessingOrderGuarantee>
  <CompletedSizeInBytes>0</CompletedSizeInBytes>
  <CreatedAt>2016-05-19T00:48:10.000Z</CreatedAt>
  <ErrorMessage/>
  <Id>874735d1-3526-4e22-ae21-c3203b03745c</Id>
  <ImplicitJobIdResolution>FALSE</ImplicitJobIdResolution>
```

```

<MinimizeSpanningAcrossMedia>
  FALSE
</MinimizeSpanningAcrossMedia>
<Naked>FALSE</Naked>
<Name>Untitled</Name>
<OriginalSizeInBytes>0</OriginalSizeInBytes>
<Priority>URGENT</Priority>
<Protected>FALSE</Protected>
<Rechunked/>
<RequestType>PUT</RequestType>
<Restore>NO</Restore>
<Truncated>FALSE</Truncated>
<UserId>e53eb0fe-21bd-42d3-817c-a3810bc72af3</UserId>
</Data>

```

GET ACTIVE JOBS

Description

Get a list of all jobs currently active. Use parameters to return a subset of the jobs.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/active_job/[?aggregating=TRUE|FALSE] [&bucket_
id={string}] [&chunk_client_processing_order_guarantee=NONE|IN_ORDER] [&last_page]
 [&name={string}] [&page_length={32-bit integer}] [&page_offset={32-bit integer}]
 [&page_start_marker={string}] [&priority=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND]
 [&rechunked={date}] [&request_type=PUT|GET|VERIFY] [&truncated=TRUE|FALSE] [&user_id=
{string}]

```

Request Parameters

Parameter	Description	Required
aggregating	Whether the job can have additional work appended to it. Jobs can aggregate if they are created with the <code>aggregating</code> request parameter set to TRUE (<code>Naked=FALSE</code>) or if they are created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests (<code>Naked=TRUE</code>). Values: TRUE, FALSE	no
bucket_id 1	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
chunk_client_processing_order_guarantee	Specifies whether the job chunks must be processed in order. Setting a value of NONE will achieve maximum performance, but requires the client to get chunks as they become available, even if they become available out of order. Values: IN_ORDER, NONE Default: Configured in the data policy for the bucket.	no
last_page	If included, only the last page of results is returned.	no
name	The name assigned to the job.	no
page_length	The maximum number of objects to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first object to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
rechunked	The date and time when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt in the format YYYY-MM-DDThh:mm:ss.xxxZ or as the number of seconds that have elapsed since January 1, 1970 at 00:00:00 GM.	no
request_type	Type of job request. Values: GET, PUT, VERIFY	no
truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE	no
user_id	The UUID, username, or other unique attribute for the user who initiated the job.	no

Responses

Response Elements

```

<Data>
  <Job>
    <Aggregating>TRUE | FALSE</Aggregating>
    <BucketId>{string}</BucketId>
    <CachedSizeInBytes>{64-bit integer}</CachedSizeInBytes>
    <ChunkClientProcessingOrderGuarantee>
      IN_ORDER | NONE
    </ChunkClientProcessingOrderGuarantee>
    <CompletedSizeInBytes>
      {64-bit integer}
    </CompletedSizeInBytes>
    <CreatedAt>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreatedAt>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <ImplicitJobIdResolution>
      TRUE | FALSE
    </ImplicitJobIdResolution>

```

```

<Naked>TRUE|FALSE</Naked>
<Name>{string}</Name>
<OriginalSizeInBytes>{64-bit integer}</OriginalSizeInBytes>
<Priority>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</Priority>
<Rechunked>{YYYY-MM-DDThh:mm:ss.xxxZ}</Rechunked>
<RequestType>GET|PUT|VERIFY</RequestType>
<Restore>YES|NO|PERMANENT_ONLY</Restore>
<Truncated>TRUE|FALSE</Truncated>
<UserId>{string}</UserId>
</Job>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Job	The container for information about a single job.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketId	The UUID of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Whether the job chunks are guaranteed to be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.

Parameter	Description
CreatedAt	The date and time the job was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
ErrorMessage	A description of the error.
Id	The UUID for the job.
ImplicitJobId Resolution	Whether GET or PUT requests that are part of this job determine the job ID implicitly (TRUE), or must specify the job ID (FALSE). Values: TRUE, FALSE
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Rechunked	The date and time when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt. If this attribute is null, then the job was not rechunked.
RequestType	Type of job request. Values: GET, PUT, VERIFY
Restore	Whether the job is restoring existing data such as an IOM job (see iom_enabled on page 1045) or a Stage job (see Stage Objects on page 250). Values: YES, NO, PERMANENT_ONLY
Truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE
UserId	The UUID for the user who initiated the job.

Example

Sample Request

This request gets a list of all currently active jobs on the Spectra BlackPearl Nearline Gateway.

```
GET http://blackpearl-hostname/_rest_/active_job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Job>
    <Aggregating>FALSE</Aggregating>
    <BucketId>2e41abd0-e681-4f5f-af2c-724c7b7d60f3</BucketId>
    <CachedSizeInBytes>0</CachedSizeInBytes>
    <ChunkClientProcessingOrderGuarantee>
      IN_ORDER
    </ChunkClientProcessingOrderGuarantee>
    <CompletedSizeInBytes>0</CompletedSizeInBytes>
    <CreatedAt>2015-11-24T02:00:17.000Z</CreatedAt>
    <Id>b053a7a8-8f25-454c-831a-e4d4618a0981</Id>
    <ImplicitJobIdResolution>FALSE</ImplicitJobIdResolution>
    <Naked>FALSE</Naked>
    <Name>Untitled</Name>
    <OriginalSizeInBytes>0</OriginalSizeInBytes>
    <Priority>URGENT</Priority>
    <Rechunked/>
    <RequestType>PUT</RequestType>
    <Truncated>FALSE</Truncated>
    <UserId>dc3cf8b0-ab38-4ce9-8d82-789352d71117</UserId>
  </Job>
</Data>
```

GET CANCELED JOB

Description

Get information about the specified canceled job.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/canceled_job/{job UUID or other unique identifier}/
```

To determine the UUID for a job, see [Get Canceled Jobs on page 199](#).

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <CachedSizeInBytes>{64-bit integer}</CachedSizeInBytes>
  <CanceledDueToTimeout>TRUE|FALSE</CanceledDueToTimeout>
  <ChunkClientProcessingOrderGuarantee>
    IN_ORDER|NONE
  </ChunkClientProcessingOrderGuarantee>
  <CompletedSizeInBytes>{64-bit integer}</CompletedSizeInBytes>
  <CreatedAt>YYYY-MM-DDThh:mm:ss.xxxZ</CreatedAt>
  <DateCanceled>YYYY-MM-DDThh:mm:ss.xxxZ</DateCanceled>
  <ErrorMessage>{string}</ErrorMessage>
  <Id>{string}</Id>
  <Naked>TRUE|FALSE</Naked>
  <Name>{string}</Name>
  <OriginalSizeInBytes>{64-bit integer}</OriginalSizeInBytes>
  <Priority>CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND</Priority>
  <Rechunked>{YYYY-MM-DDThh:mm:ss.xxxZ}</Rechunked>
  <RequestType>GET|PUT|VERIFY</RequestType>
  <Truncated>TRUE|FALSE</Truncated>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID of the bucket that is acted on by the job request.

Parameter	Description
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
CanceledDueToTimeout	Whether the job was canceled due to a timeout. Values: TRUE, FALSE
ChunkClientProcessingOrderGuarantee	Whether the job chunks are guaranteed to be processed in order. Values: IN_ORDER, NONE
CompletedSizeInBytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
CreatedAt	The date and time the job was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
DateCanceled	The date and time the job was canceled in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
ErrorMessage	A description of the error.
Id	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND

Parameter	Description
Rechunked	The date and time, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> , when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt. If this attribute is null, then the job was not rechunked.
RequestType	Type of job request. Values: GET, PUT, VERIFY
Truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE
UserId	The UUID for the user who initiated the job.

Example

Sample Request

This request gets information about the canceled job with the UUID 7a3b83f2-9d9a-459d-82c8-8f83a8a318b8.

```
GET http://blackpearl-hostname/_rest_/canceled_job/7a3b83f2-9d9a-459d-82c8-8f83a8a318b8/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Aggregating>FALSE</Aggregating>
  <BucketId>e8df5804-fe8a-4bbf-a419-67bc2a511582</BucketId>
  <CachedSizeInBytes>0</CachedSizeInBytes>
  <CanceledDueToTimeout>FALSE</CanceledDueToTimeout>
  <ChunkClientProcessingOrderGuarantee>
    IN_ORDER
  </ChunkClientProcessingOrderGuarantee>
  <CompletedSizeInBytes>0</CompletedSizeInBytes>
  <CreatedAt>2016-05-19T00:48:10.000Z</CreatedAt>
  <DateCanceled>2016-05-19T00:48:11.000Z</DateCanceled>
  <ErrorMessage/>
```

```
<Id>7a3b83f2-9d9a-459d-82c8-8f83a8a318b8</Id>
<MinimizeSpanningAcrossMedia>
  FALSE
</MinimizeSpanningAcrossMedia>
<Naked>FALSE</Naked>
<Name>Untitled</Name>
<OriginalSizeInBytes>0</OriginalSizeInBytes>
<Priority>URGENT</Priority>
<Rechunked/>
<RequestType>PUT</RequestType>
<Truncated>FALSE</Truncated>
<UserId>e53eb0fe-21bd-42d3-817c-a3810bc72af3</UserId>
</Data>
```

GET CANCELED JOBS

Description

Get a list of all canceled jobs within the last 5,000 jobs. Use parameters to return a subset of the jobs.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/canceled_job/[?bucket_id={string}][&canceled_
due_to_timeout=TRUE|FALSE][&chunk_client_processing_order_guarantee=NONE|IN_ORDER]
[&last_page][&name={string}][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}]
[&priority=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&rechunked={date}][&request_
type=PUT|GET|VERIFY][&truncated=TRUE|FALSE][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
canceled_due_to_timeout	Whether the job was canceled due to a timeout. Values: TRUE, FALSE	no
chunk_client_processing_order_guarantee	Specifies whether the job chunks must be processed in order. Setting a value of NONE will achieve maximum performance, but requires the client to get chunks as they become available, even if they become available out of order. Values: IN_ORDER, NONE Default: Configured in the data policy for the bucket.	no
last_page	If included, only the last page of results is returned.	no
name ¹	The name assigned to the job.	no
page_length	The maximum number of objects to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first object to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	no
rechunked	The date and time when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> or as the number of seconds that have elapsed since January 1, 1970 at 00:00:00 GM.	no

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
request_type	Type of job request. Values: GET, PUT, VERIFY	no
truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE	no
user_id ¹	The UUID, username, or other unique attribute for the user who initiated the job.	no

Responses

Response Elements

```

<Data>
  <CanceledJob>
    <BucketId>{string}</BucketId>
    <CachedSizeInBytes>{64-bit integer}</CachedSizeInBytes>
    <CanceledDueToTimeout>TRUE | FALSE</CanceledDueToTimeout>
    <ChunkClientProcessingOrderGuarantee>
      IN_ORDER | NONE
    </ChunkClientProcessingOrderGuarantee>
    <CompletedSizeInBytes>
      {64-bit integer}
    </CompletedSizeInBytes>
    <CreatedAt>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreatedAt>
    <DateCanceled>{YYYY-MM-DDThh:mm:ss.xxxZ}</DateCanceled>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <Naked>TRUE | FALSE</Naked>
    <Name>{string}</Name>
    <OriginalSizeInBytes>{64-bit integer}</OriginalSizeInBytes>
    <Priority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </Priority>
  </CanceledJob>
</Data>

```

```

    <Rechunked>{ YYYY-MM-DDThh:mm:ss.xxxZ}</Rechunked>
    <RequestType>GET|PUT|VERIFY</RequestType>
    <Truncated>TRUE|FALSE</Truncated>
    <UserId>{string}</UserId>
  </CanceledJob>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CanceledJob	The container for information about a single job.
BucketId	The UUID of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
CanceledDueTo Timeout	Whether the job was canceled due to a timeout. Values: TRUE , FALSE
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER , NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
CreatedAt	The date and time the job was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
DateCanceled	The date and time the job was canceled in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
ErrorMessage	A description of the error.
Id	The UUID for the job.

Parameter	Description
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Rechunked	The date and time when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt. If this attribute is null, then the job was not rechunked.
RequestType	Type of job request. Values: GET, PUT, VERIFY
Truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE
UserId	The UUID for the user who initiated the job.

Example

Sample Request

This request GETs a list for all canceled jobs on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/canceled_job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <CanceledJob>
    <BucketId>e800c074-5bb4-4a5d-a404-f431ed2f1f29</BucketId>
    <CachedSizeInBytes>0</CachedSizeInBytes>
    <CanceledDueToTimeout>FALSE</CanceledDueToTimeout>
    <ChunkClientProcessingOrderGuarantee>
      IN_ORDER
    </ChunkClientProcessingOrderGuarantee>
    <CompletedSizeInBytes>0</CompletedSizeInBytes>
    <CreatedAt>2015-11-24T02:00:17.000Z</CreatedAt>
    <DateCanceled>2015-11-24T02:00:17.000Z</DateCanceled>
    <Id>13ffa24b-515d-43f8-94bd-4d928fb96c21</Id>
    <Naked>FALSE</Naked>
    <Name>Untitled</Name>
    <OriginalSizeInBytes>0</OriginalSizeInBytes>
    <Priority>URGENT</Priority>
    <Rechunked/>
    <RequestType>GET</RequestType>
    <Truncated>FALSE</Truncated>
    <UserId>fe0d943b-224d-48a2-b2d8-59bf5c738665</UserId>
  </CanceledJob>
</Data>
```

GET COMPLETED JOB

Description

Get information about the specified completed job.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/completed_job/{job UUID or other unique identifier}/
```

To determine the UUID for a job, see [Get Completed Jobs on page 208](#).

Responses

Response Elements

```

<Data>
  <BucketId>{string}</BucketId>
  <CachedSizeInBytes>{64-bit integer}</CachedSizeInBytes>
  <ChunkClientProcessingOrderGuarantee>
    IN_ORDER|NONE
  </ChunkClientProcessingOrderGuarantee>
  <CompletedSizeInBytes>{64-bit integer}</CompletedSizeInBytes>
  <CreatedAt>YYYY-MM-DDThh:mm:ss.xxxZ</CreatedAt>
  <DateCompleted>YYYY-MM-DDThh:mm:ss.xxxZ</DateCompleted>
  <ErrorMessage>{string}</ErrorMessage>
  <Id>{string}</Id>
  <Naked>TRUE|FALSE</Naked>
  <Name>{string}</Name>
  <OriginalSizeInBytes>{64-bit integer}</OriginalSizeInBytes>
  <Priority>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
  </Priority>
  <Rechunked>{YYYY-MM-DDThh:mm:ss.xxxZ}</Rechunked>
  <RequestType>GET|PUT|VERIFY</RequestType>
  <Truncated>TRUE|FALSE</Truncated>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For RequestType=PUT, this is the amount of data successfully transferred to the BlackPearl gateway from the client. For RequestType=GET, this the amount of data either in cache originally, or loaded into cache from the permanent data store. For RequestType=VERIFY, this the amount of data loaded into cache from the permanent data store.

Parameter	Description
ChunkClient ProcessingOrder Guarantee	Whether the job chunks are guaranteed to be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
CreatedAt	The date and time the job was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
DateCompleted	The date and time the job was completed in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
ErrorMessage	A description of the error.
Id	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Rechunked	The date and time, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> , when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt. If this attribute is null, then the job was not rechunked.
RequestType	Type of job request. Values: GET, PUT, VERIFY

Parameter	Description
Truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE
UserId	The UUID for the user who initiated the job.

Example

Sample Request

This request gets information about the completed job with the UUID bfa6dda7-891a-482a-be20-a863e7fa217d.

```
GET http://blackpearl-hostname/_rest_/completed_job/bfa6dda7-891a-482a-be20-a863e7fa217d/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```

  <Aggregating>FALSE</Aggregating>
  <BucketId>368a7443-1c85-4c90-94f2-dc788ab80f84</BucketId>
  <CachedSizeInBytes>0</CachedSizeInBytes>
  <ChunkClientProcessingOrderGuarantee>
    IN_ORDER
  </ChunkClientProcessingOrderGuarantee>
  <CompletedSizeInBytes>0</CompletedSizeInBytes>
  <CreatedAt>2016-05-19T00:48:11.000Z</CreatedAt>
  <DateCompleted>2016-05-19T00:48:11.000Z</DateCompleted>
  <ErrorMessage/>
  <Id>bfa6dda7-891a-482a-be20-a863e7fa217d</Id>
  <MinimizeSpanningAcrossMedia>
    FALSE
  </MinimizeSpanningAcrossMedia>
  <Naked>FALSE</Naked>
  <Name>Untitled</Name>

```

```

<OriginalSizeInBytes>0</OriginalSizeInBytes>
<Priority>URGENT</Priority>
<Rechunked/>
<RequestType>PUT</RequestType>
<Truncated>FALSE</Truncated>
<UserId>23eefce6-041d-46bb-b3ad-55ffddafa579</UserId>
</Data>

```

GET COMPLETED JOBS

Description

Get a list of all completed jobs within the last 5,000 jobs. Use parameters to return a subset of the jobs.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/completed_job/[?bucket_id={string}][&chunk_
client_processing_order_guarantee=NONE|IN_ORDER][&last_page][&name={string}][&page_
length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
[&priority=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&rechunked={date}][&request_
type=PUT|GET|VERIFY][&truncated=TRUE|FALSE][&user_id={string}]

```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
chunk_client_processing_order_guarantee	Specifies whether the job chunks must be processed in order. Setting a value of NONE will achieve maximum performance, but requires the client to get chunks as they become available, even if they become available out of order. Values: IN_ORDER , NONE Default: Configured in the data policy for the bucket.	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
name ¹	The name assigned to the job.	no
page_length	The maximum number of objects to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first object to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	no
rechunked	The date and time when a chunk of a GET or VERIFY job had to be re-chunked to target other media due to the original target becoming unavailable or corrupt in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> or as the number of seconds that have elapsed since January 1, 1970 at 00:00:00 GM.	no
request_type	Type of job request. Values: GET, PUT, VERIFY	no
truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE	no
user_id ¹	The UUID, username, or other unique attribute for the user who initiated the job.	no

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <CompletedJob>
    <BucketId>{string}</BucketId>
    <CachedSizeInBytes>{64-bit integer}</CachedSizeInBytes>
    <ChunkClientProcessingOrderGuarantee>
      IN_ORDER|NONE
    </ChunkClientProcessingOrderGuarantee>
    <CompletedSizeInBytes>
      {64-bit integer}
    </CompletedSizeInBytes>
    <CreatedAt>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreatedAt>
    <DateCompleted>{YYYY-MM-DDThh:mm:ss.xxxZ}</DateCanceled>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <Naked>TRUE|FALSE</Naked>
    <Name>{string}</Name>
    <OriginalSizeInBytes>{64-bit integer}</OriginalSizeInBytes>
    <Priority>
      CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
    </Priority>
    <Rechunked>{YYYY-MM-DDThh:mm:ss.xxxZ}</Rechunked>
    <RequestType>GET|PUT|VERIFY</RequestType>
    <Truncated>TRUE|FALSE</Truncated>
    <UserId>{string}</UserId>
  </CompletedJob>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CompletedJob	The container for information about a single job.
BucketId	The UUID of the bucket that is acted on by the job request.

Parameter	Description
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER , NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
CreatedAt	The date and time the job was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
DateCompleted	The date and time the job completed in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
ErrorMessage	A description of the error.
Id	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE , FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL , URGENT , HIGH , NORMAL , LOW , BACKGROUND
Rechunked	The date and time when a chunk of a GET or VERIFY job had to be rechunked to target other media due to the original target becoming unavailable or corrupt. If this attribute is null, then the job was not rechunked.

Parameter	Description
RequestType	Type of job request. Values: GET, PUT, VERIFY
Truncated	Whether the job was truncated (made smaller) from its original definition. A job is truncated when a PUT job is canceled and objects that haven't been entirely uploaded to cache are deleted from the job so that the job can complete without any further transmission of data from the client. Or, a job is truncated if, when processing a GET or VERIFY job, the BlackPearl gateway determines that some of the blobs cannot be retrieved (for example, all media containing a blob has been ejected), in which case the gateway truncates the parts of the job that it cannot GET or VERIFY. Values: TRUE, FALSE
UserId	The UUID for the user who initiated the job.

Example

Sample Request

This request gets a list of all completed jobs on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/completed_job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CompletedJob>
    <BucketId>12c10166-979f-4477-ad3a-e1b514257886</BucketId>
    <CachedSizeInBytes>0</CachedSizeInBytes>
    <ChunkClientProcessingOrderGuarantee>
      IN_ORDER
    </ChunkClientProcessingOrderGuarantee>
    <CompletedSizeInBytes>0</CompletedSizeInBytes>
    <CreatedAt>2015-11-24T02:00:17.000Z</CreatedAt>
    <DateCompleted>2015-11-24T02:00:17.000Z</DateCompleted>
    <ErrorMessage/>
    <Id>721bcf0b-75b4-4830-ac3b-135819832f55</Id>
    <Naked>FALSE</Naked>
    <Name>Untitled</Name>
```



```
<OriginalSizeInBytes>0</OriginalSizeInBytes>
<Priority>URGENT</Priority>
<Rechunked/>
<RequestType>PUT</RequestType>
<Truncated>FALSE</Truncated>
<UserId>800b9b7b-8a56-4657-85b3-ec225139e133</UserId>
</CompletedJob>
</Data>
```

GET JOB

Description

Get information about a specified job. Jobs that completed or were canceled are automatically cleared after 30 days.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job/{job UUID or other unique identifier}/
```

To determine the UUID for a job, see [Get Jobs on page 229](#).

Responses

Response Elements

```
<MasterObjectList
  Aggregating="TRUE | FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER | NONE"
  CompletedSizeInBytes="{64-bit integer}"
  EntirelyInCache="TRUE | FALSE"
  JobId="{string}"
  Naked="TRUE | FALSE"
```

```

Name="{string}"
OriginalSizeInBytes="{64-bit integer}"
Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
RequestType="GET|PUT|VERIFY"
StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
Status="IN_PROGRESS|COMPLETED|CANCELED"
UserId="{string}"
UserName="{string}">
<Nodes>
  <Node EndPoint="{string}" Id="{string}"/>
</Nodes>
<Objects>
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}">
  <Object Id="{string}" InCache="TRUE|FALSE"
    Latest="TRUE|FALSE" Length="{64-bit integer}"
    Name="{string}" Offset="{64-bit integer}"
    VersionId="{string}"/>
  ...
</Objects>
...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE

Parameter	Description
CompletedSizeInBytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
EntirelyInCache ¹	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
RequestType	Type of job request. Values: GET, PUT, VERIFY
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.

1) Not always included for GET jobs.

Parameter	Description
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk, yet to be processed.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request GETs the parameters for the job with the UUID 7761fe8b-0bdc-4ce0-839e-4b1fa3c50cf4.

```
GET http://blackpearl-hostname/_rest_/job/7761fe8b-0bdc-4ce0-839e-4b1fa3c50cf4/
HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket_name"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="b5604de7-904e-4577-987b-4b65c24096e6"
  Naked="FALSE"
  Name="Untitled"
  OriginalSizeInBytes="0" Priority="URGENT" RequestType="PUT"
  StartDate="2015-10-07T22:33:27.000Z" Status="IN_PROGRESS"
  UserId="4c8fc543-e33b-494c-adfb-870747296bd0"
  UserName="user_name">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="b145fe8d-7019-4beb-b2b7-76d3994516be"/>
  </Nodes>
  <Objects ChunkId="a846352f-1936-4a63-b8a5-17f497847795"
    ChunkNumber="1">
    <Object Id="1209c59e-6845-47f3-a373-acca107b1621"
      InCache="FALSE" Latest="TRUE" Length="10" Name="o1"
      Offset="0"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
</MasterObjectList>
```

GET JOB CHUNK

Description

Get the objects from the specified job chunk. It is more common to use GET Object operations. See [Get Object on page 48](#).

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_chunk/{job_chunk_id}/
```

To determine the UUID for a job chunk, see [Create Bulk GET](#) on page 165.

Responses

Response Elements

```
<Objects
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}"
  NodeId="{string}">
  <Object
    Id="{string}"
    InCache="TRUE|FALSE"
    Latest="TRUE|FALSE"
    Length="{64-bit integer}"
    Name="{string}"
    Offset="{64-bit integer}"
    VersionId="{string}"/>
</Objects>
```

where the response elements are defined as follows:

Parameter	Description
Objects	The container for the response.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
NodeId	The UUID for the node.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE

Parameter	Description
Latest	Whether this version of the object is the latest. Values: TRUE , FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request does a GET for all objects in the job chunk with the UUID f086d875-055c-45c6-acf9-7741058d95a3.

```
GET http://blackpearl-hostname/_rest/_rest/job_chunk/f086d875-055c-45c6-acf9-7741058d95a3/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Objects
```

```
  ChunkId="f086d875-055c-45c6-acf9-7741058d95a3"
```

```
  ChunkNumber="1"
```

```
  NodeId="2e2a83ff-ecc6-44f5-9e92-f8206f01db11">
```

```
<Object
```

```
  Id="30030d45-85ea-49ca-a2f7-6cce05452632"
```

```
  InCache="FALSE"
```

```
  Latest="TRUE"
```

```
  Length="1024"
```

```
  Name="T950.tif"
```

```
  Offset="0"
```

```
  VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
```

```
</Objects>
```

GET JOB CHUNK INFORMATION

Description

Get information about the specified job chunk.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_chunk_dao/{job_chunk_id}/
```

To determine the UUID for a job chunk, see [Create Bulk GET](#) on page 165.

Responses

Response Elements

```
<Data>
  <BlobStoreState>COMPLETED|IN_PROGRESS|PENDING</BlobStoreState>
  <ChunkNumber>{32-bit integer}</ChunkNumber>
  <Id>{string}</Id>
  <JobCreationDate/>
  <JobId>{string}</JobId>
  <NodeId>{string}</NodeId>
  <PendingTargetCommit>TRUE|FALSE</PendingTargetCommit>
  <ReadFromDs3TargetId>{string}</ReadFromDs3TargetId>
  <ReadFromPoolId>{string}</ReadFromPoolId>
  <ReadFromTapeId>{string}</ReadFromTapeId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BlobStoreState	The processing state of the object part. Values: COMPLETED — The chunk has been completely read/written by the data store. IN_PROGRESS — The chunk is being read/written by the data store. PENDING — The data store has not begun processing the chunk yet.

Parameter	Description
ChunkNumber	The position of the chunk within the job.
Id	The UUID for the job chunk.
JobCreationDate	The date and time the job was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
NodeId	The UUID for the node.
PendingTargetCommit	Whether both of the following are true: <ul style="list-style-type: none"> • The job chunk is part of a PUT job. • The BlackPearl gateway has completed all local and replicated copies required, but the replication target(s) have not completed their local and replicated copies. Values: TRUE, FALSE
ReadFromDs3TargetId	The UUID of the BlackPearl replication target from which the gateway plans to read or verify the chunk.
ReadFromPoolId	The UUID of the disk pool from which the gateway plans to read or verify the chunk.
ReadFromTapeId	The UUID of the tape from which the gateway plans to read or verify the chunk.
Name	The name of the object.

Example

Sample Request

This request gets information about the job chunk with the UUID 483beee5-1064-4b5b-896d-e499e7cb2f02.

```
GET http://blackpearl-hostname/_rest/_rest/job_chunk_dao/483beee5-1064-4b5b-896d-e499e7cb2f02/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <BlobStoreState>PENDING</BlobStoreState>
  <ChunkNumber>1</ChunkNumber>
  <Id>483beee5-1064-4b5b-896d-e499e7cb2f02</Id>
  <JobCreationDate/>
  <JobId>0eef20e6-963d-4312-b674-91e740c844b1</JobId>
  <NodeId>9e29cee4-0e8b-4cf5-9dfc-6c9627dcfac9</NodeId>
  <PendingTargetCommit>FALSE</PendingTargetCommit>
  <ReadFromDs3TargetId/>
  <ReadFromPoolId/>
  <ReadFromTapeId/>
</Data>
```

GET JOB CHUNKS READY FOR PROCESSING

Description

Get a list of all job chunks for a given job that are ready for client processing.

For PUT jobs, this command allocates a working window of job chunks, if possible, and return a list of job chunks ready for uploading. Any chunk returned is fully allocated, meaning that you do not have to handle HTTP 307 retries on subsequent PUTs for the chunks. Retries adversely impact BlackPearl gateway performance and require you to provide the object data stream for every PUT retry.

For GET jobs, this command responds with a list of job chunks loaded in cache and ready for download.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_chunk/?job={string} [&job_chunk={string}]
[&preferred_number_of_chunks={32-bit integer}]
```

Request Parameters

Parameter	Description	Required
job	The UUID or a unique attribute for the job for which you want job chunks listed. See Get Jobs on page 229.	yes
job_chunk	The UUID or a unique attribute for the job chunk.	no
preferred_number_of_chunks	The maximum number of chunks to return. The default is 3.	no

Responses

Response Elements

```
<MasterObjectList
  Aggregating="TRUE|FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER|NONE"
  CompletedSizeInBytes="{64-bit integer}"
  EntirelyInCache="TRUE|FALSE"
  JobId="{string}"
  Naked="TRUE|FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
  RequestType="GET|PUT|VERIFY"
  StartDate="{YYYY-MM-DDThh:mm:ss.xxxZ}"
  Status="IN_PROGRESS|COMPLETED|CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node
      EndPoint="{string}" Id="{string}"/>
    ...
  </Nodes>
  <Objects
    ChunkId="{string}"
    ChunkNumber="{32-bit integer}">
    NodeId="{string}"
```

```

<Object
  Id="{string}"
  InCache="TRUE|FALSE"
  Latest="TRUE|FALSE"
  Length="{64-bit integer}"
  Name="{string}"
  Offset="{64-bit integer}"
  VersionId="{string}"/>
  ...
</Objects>
  ...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
EntirelyInCache	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE

Parameter	Description
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE , FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL , URGENT , HIGH , NORMAL , LOW , BACKGROUND
RequestType	Type of job request. Values: GET , PUT , VERIFY
StartDate	The date and time the job was started in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS — The job is currently running. • COMPLETED — The job completed. • CANCELED — The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.

Parameter	Description
NodeId	The UUID for the node.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request GETs a list of all job chunks ready to process for the job with the UUID 63c605c4-8f8f-47c8-87ec-5735fbd53218.

```
GET http://blackpearl-hostname/_rest_/job_chunk?job=63c605c4-8f8f-47c8-87ec-5735fbd53218/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket_name"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="63c605c4-8f8f-47c8-87ec-5735fbd53218"
  Naked="FALSE"
  Name="Untitled"
  OriginalSizeInBytes="0"
  Priority="URGENT"
  RequestType="PUT"
```

```

StartDate="2015-08-10T22:58:42.000Z"
Status="IN_PROGRESS"
UserId="3b478ebf-6076-4b01-a763-f35cadee8e77"
UserName="user_name">
<Nodes>
  <Node EndPoint="blackpearl-hostname"
  Id="329cd2ee-1e3c-482c-8d8f-b3c85562f05c"/>
</Nodes>
<Objects ChunkId="7a8fd827-072b-43be-9e28-821fca542a5f"
  ChunkNumber="1"
  NodeId="329cd2ee-1e3c-482c-8d8f-b3c85562f05c">
  <Object Id="7bd98e85-9b46-4f99-88e1-4bb3f3d7b55d"
    InCache="FALSE" Latest="TRUE" Length="1000"
    Name="o1" Offset="0"
    VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
</Objects>
</MasterObjectList>

```

GET JOB TO REPLICATE

Description

Returns an XML payload that represents a job that a client wants to replicate to another BlackPearl gateway. This payload is intended to be forwarded to another BlackPearl gateway to replicate the job using [Replicate PUT Job on page 245](#).

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job/{job UUID or unique
  identifier}?replicate
```

To determine the UUID for a job, see [Get Jobs on page 229](#).

Request Parameters

Parameter	Description	Required
replicate	Included to indicate a replicate operation.	yes

Responses

Response Elements

Returns an XML payload to replicate a job. This payload is used as a request payload for a [Replicate PUT Job](#) (see page 245).

Example

Sample Request

This request gets information for replicating the job with the UUID 104c5557-a600-4b23-b838-24c1e0d8a38a.

```
GET http://blackpearl-hostname/_rest_/job/104c5557-a600-4b23-b838-24c1e0d8a38a/?replicate HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
{"blobs":
  [{"byteOffset":0,
    "checksum":null,
    "checksumType":null,
    "id":"38403a46-79d3-4a94-aa0d-6262399eb43a",
    "length":10,
    "objectId":"5ba8892e-84d6-4886-b68d-00ff72aaf9bc"}],
"chunks":
  [{"chunkNumber":1,
    "entries":
      [{"blobId":"38403a46-79d3-4a94-aa0d-6262399eb43a",
        "chunkId":"f40ccd1b-7a4a-417d-a928-5ff79f68ceeb",
        "id":"d1b4660e-5e68-4265-bf7e-22ec6915bb56",
        "jobId":"104c5557-a600-4b23-b838-24c1e0d8a38a",
        "orderIndex":1}],
      "id":"f40ccd1b-7a4a-417d-a928-5ff79f68ceeb"}],
  "id":"104c5557-a600-4b23-b838-24c1e0d8a38a",
```



```
"objects":
  [{"bucketId":"8def70a9-0fcb-490d-ad9b-5538838463f6",
    "creationDate":null,
    "id":"5ba8892e-84d6-4886-b68d-00ff72aaf9bc",
    "latest":TRUE,
    "name":"o1",
    "type":"DATA",
    "version":1}]}
```

GET JOBS

Description

Get a list of all jobs currently running. Use the `full_details` parameter to include jobs completed or canceled in the last 30 days, up to a maximum of 5,000 jobs. Use the `bucket` parameter to return only the jobs involving the specified bucket.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job/[?bucket_id={string}][&full_details]
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
full_details	If included, the response includes information about jobs completed or canceled in the last 30 days.	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Jobs>
  <Job
    Aggregating="TRUE | FALSE"
    BucketName="{string}"
    CachedSizeInBytes="{64-bit integer}"
    ChunkClientProcessingOrderGuarantee="IN_ORDER | NONE"
    CompletedSizeInBytes="{64-bit integer}"
    EntirelyInCache="TRUE | FALSE"
    JobId="{string}"
    Naked="TRUE | FALSE"
    Name="{string}"
    OriginalSizeInBytes="{64-bit integer}"
    Priority="CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND"
    RequestType="GET | PUT | VERIFY"
    StartDate="{YYYY-MM-DDThh:mm:ss.xxxZ}"
    Status="CANCELED | COMPLETED | IN_PROGRESS"
    UserId="{string}"
    UserName="{string}">
    <Nodes>
      <Node EndPoint="{string}" Id="{string}"/>
    </Nodes>
  </Job>
  ...
</Jobs>

```

where the response elements are defined as follows:

Parameter	Description
Jobs	The container for the response.
Job	The container for information about a single job.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.

Parameter	Description
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
EntirelyInCache ¹	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
RequestType	Type of job request. Values: GET, PUT, VERIFY
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

1) Not always included for GET jobs.

Parameter	Description
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.

Example

Sample Request

This request gets a list of all jobs currently running on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Jobs>
```

```
<Job
```

```
  Aggregating="FALSE"
```

```
  BucketName="bucket_name"
```

```
  CachedSizeInBytes="0"
```

```
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
```

```
  CompletedSizeInBytes="0"
```

```
  EntirelyInCache="FALSE"
```

```

    JobId="1615f0cf-afee-44e5-9185-640912e4595a"
    Naked="FALSE"
    Name="Untitled"
    OriginalSizeInBytes="0"
    Priority="URGENT"
    RequestType="GET"
    StartDate="2014-10-02T11:40:11.000Z"
    Status="IN_PROGRESS"
    UserId="91b0c685-a728-4d59-b504-2e53f29a5e70"
    UserName="user_name"
    WriteOptimization="CAPACITY">
    <Nodes>
      <Node
        EndPoint="blackpearl-hostname"
        Id="08faa8c4-ae11-4c6a-bc02-8986e674b175"/>
    </Nodes>
  </Job>
  ...
</Jobs>

```

MODIFY ACTIVE JOB

Description

Modify the priority or the start date of a job that is in process. Executing this request also resets the heartbeat for the job, so that it does not timeout.

Notes:

- If an optional request parameter is not included, the previous setting is retained.
- This command is an alias for [Modify Job on page 239](#).

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/active_job/{job UUID or unique identifier}/
[?created_at={date}] [&dead_job_cleanup_allowed=TRUE|FALSE] [&name={string}]
[&priority=URGENT|HIGH|NORMAL|LOW] [&protected=TRUE|FALSE]

```

To determine the UUID for a job, see [Get Active Jobs on page 190](#).

Request Parameters

Parameter	Description	Required
created_at	The date to set as the StartDate in the format YYYY-MM-DDThh:mm:ss.xxxZ or as the number of seconds that have elapsed since January 1, 1970 at 00:00:00 GM.	no
dead_job_cleanup_allowed	Whether or not a job can be canceled or truncated automatically after 24 hours of inactivity. Values: TRUE (default), FALSE .	no
name 1	A name to assign to the job for tracking.	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with <code>priority URGENT</code> can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW Default: The previously specified priority.	no
protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).	no

Responses

Response Elements

```
<MasterObjectList
  Aggregating="TRUE | FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER | NONE"
  CompletedSizeInBytes="{64-bit integer}"
  DeadJobCleanupAllowed="TRUE | FALSE"
  EntirelyInCache="TRUE | FALSE"
  JobId="{string}"
  Naked="TRUE | FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND"
  Protected="TRUE | FALSE"
  RequestType="GET | PUT | VERIFY"
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

StartDate="{YYYY-MM-DDThh:mm:ss.xxxZ}"
Status="IN_PROGRESS|COMPLETED|CANCELED"
UserId="{string}"
UserName="{string}"
<Nodes>
  <Node
    EndPoint="{string}" Id="{string}"/>
  ...
</Nodes>
<Objects>
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}"
  <Object
    Id="{string}"
    InCache="TRUE|FALSE"
    Latest="TRUE|FALSE"
    Length="{64-bit integer}"
    Name="{string}"
    Offset="{64-bit integer}"
    VersionID="{string}"/>
  </Object>
  ...
</Objects>
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the aggregating request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For RequestType=PUT, this is the amount of data successfully transferred to the BlackPearl gateway from the client. For RequestType=GET, this the amount of data either in cache originally, or loaded into cache from the permanent data store. For RequestType=VERIFY, this the amount of data loaded into cache from the permanent data store.

Parameter	Description
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
DeadJobCleanupAllowed	Whether or not a job can be canceled or truncated automatically after 24 hours of inactivity. Values: TRUE (default), FALSE .
EntirelyInCache ¹	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).
RequestType	Type of job request. Values: GET, PUT, VERIFY
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

1) Not always included for GET jobs.

Parameter	Description
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionID	The UUID of the version of the object.
Id	The UUID for the object.

Example

Sample Request

This request modifies the priority of the job with the UUID 0123edab-a4ec-4472-927e-c4df0ac9416b to urgent.

```
PUT http://blackpearl-hostname/_rest_/job/0123edab-a4ec-4472-927e-c4df0ac9416b/?priority=URGENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket_name"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  DeadJobCleanupAllowed="FALSE"
  EntirelyInCache="FALSE"
  JobId="0123edab-a4ec-4472-927e-c4df0ac9416b"
  Naked="FALSE"
  Name="Untitled"
  OriginalSizeInBytes="12345"
  Priority="URGENT"
  Protected="TRUE"
  RequestType="PUT"
  StartDate="2014-10-02T11:40:18.000Z"
  UserId="0e48e86a-54ca-4078-af35-40138da7b1a6"
  UserName="user_name"
  WriteOptimization="CAPACITY">
  <Nodes>
    <Node
      EndPoint="blackpearl-hostname"
      Id="ee05bc5f-3a0e-41c3-992d-9ea99ce7552e"/>
  </Nodes>
```

```

<Objects
  ChunkId="d4b8a15a-d635-4854-b746-751edafe5c88"
  ChunkNumber="1">
  <Object
    Id="70f80a64-4da9-42e2-bd0f-ee67cf496bbe" InCache="FALSE"
    Latest="TRUE" Length="12345" Name="object_name"
    Offset="0"
    VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Object>
</Objects>
</MasterObjectList>

```

MODIFY JOB

Description

Modify the priority or the start date of a job that is in process. Executing this request also resets the heartbeat for the job, so that it does not timeout.

Notes:

- If an optional request parameter is not included, the previous setting is retained.
- This command is an alias for [Modify Active Job on page 233](#)

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/job/{job UUID or unique identifier}/
[?created_at={date}] [&dead_job_cleanup_allowed=TRUE|FALSE] [&name={string}]
[&priority=URGENT|HIGH|NORMAL|LOW] [&protected=TRUE|FALSE]

```

To determine the UUID for a job, see [Get Jobs on page 229](#).

Request Parameters

Parameter	Description	Required
created_at	The date to set as the StartDate in the format YYYY-MM-DDThh:mm:ss.xxxZ or as the number of seconds that have elapsed since January 1, 1970 at 00:00:00 GM.	no

Parameter	Description	Required
dead_job_cleanup_allowed	Whether or not a job can be canceled or truncated automatically after 24 hours of inactivity. Values: TRUE (default), FALSE .	no
name 1	A name to assign to the job for tracking.	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW Default: The previously specified priority.	no
protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE, FALSE (default).	no

Responses

Response Elements

```
<MasterObjectList
  Aggregating="TRUE|FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER|NONE"
  CompletedSizeInBytes="{64-bit integer}"
  DeadJobCleanupAllowed="TRUE|FALSE"
  EntirelyInCache="TRUE|FALSE"
  JobId="{string}"
  Naked="TRUE|FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
  Protected="TRUE|FALSE"
  RequestType="GET|PUT|VERIFY"
  StartDate="{YYYY-MM-DDThh:mm:ss.xxxZ}"
  Status="IN_PROGRESS|COMPLETED|CANCELED"
  UserId="{string}"
  UserName="{string}">
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

<Nodes>
  <Node
    EndPoint="{string}" Id="{string}"/>
    ...
</Nodes>
<Objects
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}">
  <Object
    Id="{string}"
    InCache="TRUE|FALSE"
    Latest="TRUE|FALSE"
    Length="{64-bit integer}"
    Name="{string}"
    Offset="{64-bit integer}"
    VersionID="{string}"/>
  </Object>
  ...
</Objects>
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client. For <code>RequestType=GET</code> , this the amount of data either in cache originally, or loaded into cache from the permanent data store. For <code>RequestType=VERIFY</code> , this the amount of data loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE

Parameter	Description
CompletedSizeInBytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client. For <code>RequestType=VERIFY</code> , this indicates the amount of data for which the CRC has been verified.
DeadJobCleanupAllowed	Whether or not a job can be canceled or truncated automatically after 24 hours of inactivity. Values: TRUE (default), FALSE .
EntirelyInCache ¹	Whether all objects in the job are in the BlackPearl cache. Values: TRUE , FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE , FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL , URGENT , HIGH , NORMAL , LOW , BACKGROUND
Protected	The protection setting for the job. Protected jobs cannot be canceled. Values: TRUE , FALSE (default).
RequestType	Type of job request. Values: GET , PUT , VERIFY
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS — The job is currently running. • COMPLETED — The job completed. • CANCELED — The job was canceled by the user or automatically due to internal timeouts.

1) Not always included for GET jobs.

Parameter	Description
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionID	The UUID of the version of the object.
Id	The UUID for the object.

Example

Sample Request

This request modifies the priority of the job with the UUID 0123edab-a4ec-4472-927e-c4df0ac9416b to urgent.

```
PUT http://blackpearl-hostname/_rest_/job/0123edab-a4ec-4472-927e-
c4df0ac9416b/?priority=URGENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket_name"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  DeadJobCleanupAllowed="FALSE"
  EntirelyInCache="FALSE"
  JobId="0123edab-a4ec-4472-927e-c4df0ac9416b"
  Naked="FALSE"
  Name="Untitled"
  OriginalSizeInBytes="12345"
  Priority="URGENT"
  Protected="TRUE"
  RequestType="PUT"
  StartDate="2014-10-02T11:40:18.000Z"
  UserId="0e48e86a-54ca-4078-af35-40138da7b1a6"
  UserName="user_name"
  WriteOptimization="CAPACITY">
  <Nodes>
    <Node
      EndPoint="blackpearl-hostname"
      Id="ee05bc5f-3a0e-41c3-992d-9ea99ce7552e"/>
  </Nodes>
  <Objects>
    ChunkId="d4b8a15a-d635-4854-b746-751edafe5c88"
    ChunkNumber="1">
    <Object
      Id="70f80a64-4da9-42e2-bd0f-ee67cf496bbe"
      InCache="FALSE"
      Latest="TRUE"
      Length="12345"
      Name="object_name"
      Offset="0"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
    </Object>
  </Objects>
</MasterObjectList>
```


REPLICATE PUT JOB

Description

Replicates a job from another BlackPearl gateway to this BlackPearl gateway, ensuring that the objects are recognized as identical across the gateways on which replication is performed. Clients must provide the response payload returned by [Modify Active Job on page 233](#) on the source BlackPearl gateway as the request payload for the Replicate PUT Job on the target gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{UUID, name, or other unique attribute
for the bucket}?operation=START_BULK_PUT &replicate
[&priority=URGENT|HIGH|NORMAL|LOW]
```

To determine the UUID for a bucket, see [Get Buckets - DS3 on page 76](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to start a bulk PUT job. Value: START_BULK_PUT	yes
replicate	Included to indicate a replicate operation.	yes
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with <code>Priority URGENT</code> can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW Default: Configured in the data policy for the bucket.	no

Request Elements

An XML payload, the response from [Modify Active Job on page 233](#) run on the source BlackPearl gateway, must be sent as the request payload.

Responses

Response Elements

```

<MasterObjectList
  Aggregating="TRUE|FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER|NONE"
  CompletedSizeInBytes="{64-bit integer}"
  EntirelyInCache="TRUE|FALSE"
  JobId="{string}"
  Naked="TRUE|FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND"
  RequestType="PUT"
  StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
  Status="IN_PROGRESS|COMPLETED|CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node EndPoint="{string}" Id="{string}"/>
  </Nodes>
  <Objects
    ChunkId="{string}"
    ChunkNumber="{32-bit integer}">
    <Object Id="{string}" InCache="TRUE|FALSE"
      Latest="TRUE|FALSE" Length="{64-bit integer}"
      Name="{string}" Offset="{64-bit integer}"
      VersionID="{string}"/>
    ...
  </Objects>
  ...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The container for the response.

Parameter	Description
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=PUT</code> , this is the amount of data successfully transferred to the BlackPearl gateway from the client.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=PUT</code> , this indicates the amount of data written to all permanent data stores.
EntirelyInCache	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
RequestType	Type of job request. Values: PUT
StartDate	The date and time the job was started in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS – The job is currently running. • COMPLETED – The job completed. • CANCELED – The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request sent to “blackpearl-hostname2” with the response from the example for [Get Job to Replicate](#) on page 179, creates a bulk PUT job on “blackpearl-hostname2” identical to the job on the BlackPearl gateway on which [Get Job to Replicate](#) ran.

```
PUT http://blackpearl-hostname2/_rest_/bucket/bucket1/?operation=start_bulk_put&replicate HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="existing_bucket"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="cce39f77-7570-48e1-92de-235a5b282c1d"
  Naked="FALSE"
  Name="Untitled"
  OriginalSizeInBytes="10"
  Priority="NORMAL"
  RequestType="PUT"
  StartDate="2016-01-21T18:54:21.000Z"
  Status="IN_PROGRESS"
  UserId="d0bf86e8-7bba-4507-a0f0-2698fb8fccfa"
  Username="test_user">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="a651430c-22aa-468b-8b4b-42b50627faf3"/>
  </Nodes>
  <Objects>
    ChunkId="4294b5c2-b4ae-46db-8aca-858805a7a116"
    ChunkNumber="1">
    <Object Id="58fa3a04-7711-49b8-aaba-93b91eb93145"
      InCache="FALSE" Latest="TRUE" Length="10"
      Name="o1" Offset="0"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
</MasterObjectList>
```

STAGE OBJECTS

Description

Create a job to stage objects into a temporary pool, if available, or the cache.



IMPORTANT The BlackPearl gateway processes a maximum of 1,000 concurrent active jobs.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket UUID or
name}?operation=START_BULK_STAGE[&name={string}][&priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to start a bulk stage. Value: START_BULK_STAGE	yes
name	A name to assign to the job for tracking.	no
priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Jobs with <code>Priority URGENT</code> can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW Default: Configured in the data policy for the bucket.	no

Request Elements

An XML payload, formatted as follows, must be sent to describe the staging job to create:

```
<Objects
  <Object Name="{string}" Length="{64-bit integer}"
    Offset="{64-bit integer}" Version_Id="{string}"/>
  ...
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
Object	The container for information about one object.	yes
Name	The name of an object to GET. All objects in the list must be in the same bucket.	yes
Length	The length in bytes to get.	no
Offset	The offset in bytes from the start of the object to start the get.	no
Version_Id	The UUID for the version of the object.	no

Responses

Response Elements

```
<MasterObjectList
  Aggregating="TRUE | FALSE"
  BucketName="{string}"
  CachedSizeInBytes="{64-bit integer}"
  ChunkClientProcessingOrderGuarantee="IN_ORDER | NONE"
  CompletedSizeInBytes="{64-bit integer}"
  EntirelyInCache="TRUE | FALSE"
  JobId="{string}"
  Naked="TRUE | FALSE"
  Name="{string}"
  OriginalSizeInBytes="{64-bit integer}"
  Priority="CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND"
  RequestType="GET"
  StartDate="YYYY-MM-DDThh:mm:ss.xxxZ"
  Status="IN_PROGRESS | COMPLETED | CANCELED"
  UserId="{string}"
  UserName="{string}">
  <Nodes>
    <Node EndPoint="{string}" Id="{string}"/>
  </Nodes>
```

```

<Objects
  ChunkId="{string}"
  ChunkNumber="{32-bit integer}">
  <Object Id="{string}" InCache="TRUE|FALSE"
    Latest="TRUE|FALSE" Length="{64-bit integer}"
    Name="{string}" Offset="{64-bit integer}"
    VersionId="{string}"/>
  ...
</Objects>
...
</MasterObjectList>

```

where the response elements are defined as follows:

Parameter	Description
MasterObjectList	The BlackPearl gateway container for the response.
Aggregating	Whether the job can have additional PUTs or GETs appended to it. Jobs aggregate if created with the <code>aggregating</code> request parameter set to TRUE , or if created by the BlackPearl gateway in response to Amazon S3 PUT and GET requests. Values: TRUE, FALSE
BucketName	The name of the bucket that is acted on by the job request.
CachedSizeInBytes	The amount of data that has been transferred to the cache for this job. For <code>RequestType=GET</code> , this is the amount of data either in cache originally, or loaded into cache from the permanent data store.
ChunkClient ProcessingOrder Guarantee	Specifies whether the job chunks will be processed in order. Values: IN_ORDER, NONE
CompletedSizeIn Bytes	The amount of data that is completely processed for this job. For <code>RequestType=GET</code> , this indicates the amount of data that has been read successfully by the client.
EntirelyInCache	Whether all objects in the job are in the BlackPearl cache. Values: TRUE, FALSE
JobId	The UUID for the job.
Naked	Whether the job was created as the result of a native S3 command (TRUE) or a Create Bulk GET/PUT/VERIFY job command (FALSE). Values: TRUE, FALSE
Name	The name assigned to the job for tracking.

Parameter	Description
OriginalSizeInBytes	The full size of the job.
Priority	The priority for processing this job. The job priority determines the assigned resources and processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
RequestType	Type of job request. Values: GET
StartDate	The date and time the job was started in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Status	The current status of the job. Values: <ul style="list-style-type: none"> • IN_PROGRESS — The job is currently running. • COMPLETED — The job completed. • CANCELED — The job was canceled by the user or automatically due to internal timeouts.
UserId	The UUID for the user who initiated the job.
UserName	The username of the user who initiated the job.
Nodes	A container for information about all BlackPearl nodes.
Node	A container for information about a single BlackPearl node.
EndPoint	The IP address or DNS name of the BlackPearl node.
Id	The UUID for the node.
Objects	Container for information about the objects in one chunk.
ChunkId	The UUID for the job chunk.
ChunkNumber	The position of the chunk within the job.
Object	The container for information about a single object.
Id	The UUID for the object.
InCache	Indicates if the object is currently in cache on the BlackPearl gateway. Values: TRUE, FALSE
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE

Parameter	Description
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID for the version of the object.

Example

Error Response

If one or more objects requested only exist on tapes outside of the library, then the following response is provided:

```
<Error>
  <Code>CONFLICT</Code>
  <HttpErrorCode>409</HttpErrorCode>
  <Message>
    RPC DataPlanner.createGetJob<lt;60821823>> FAILED:
    Some of the data requested is offline (e.g. ejected, offline,
    or quiesced) and must first be brought online. Online:
    [TEST079L7]
  </Message>
  <Resource>/_rest_/bucket/eject</Resource>
  <ResourceId>40727470</ResourceId>
</Error>
```

Import and online the tape with the requested barcode. In the example above, the required tape is TEST079L7.

Example

Sample Request

This request creates a staging job for one object in the bucket "bucket1".

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=start_bulk_
stage&name="StageJob" HTTP/1.1
<Objects
  <Object Name="o1" Length="10" Offset="10" Version_Id="1"/>
  ...
</Objects>
```

Sample Response

```
HTTP/1.1 200 OK
<MasterObjectList
  Aggregating="FALSE"
  BucketName="bucket1"
  CachedSizeInBytes="0"
  ChunkClientProcessingOrderGuarantee="IN_ORDER"
  CompletedSizeInBytes="0"
  EntirelyInCache="FALSE"
  JobId="78dba377-a02a-4c15-b2a1-412514342f17"
  Naked="FALSE"
  Name="StageJob"
  OriginalSizeInBytes="0"
  Priority="NORMAL"
  RequestType="STAGE"
  StartDate="2018-1-07T22:33:17.000Z"
  Status="IN_PROGRESS"
  UserId="a6a04b3d-960a-4799-9c88-6801f5cf5449"
  UserName="user_name">
  <Nodes>
    <Node EndPoint="blackpearl-hostname"
      Id="aed40ca0-5289-49ca-9cd9-cf5a7559a1db"/>
  </Nodes>
  <Objects
    ChunkId="a909e72e-a96a-4c3e-95a3-f3472e14ae17"
    ChunkNumber="1">
    <Object Id="2ee4f397-c169-4a59-96cc-a07280412f43"
      InCache="FALSE" Latest="TRUE" Length="10"
      Name="o1" Offset="10"
      VersionId="536d118c-d58c-4a6e-9fb5-5bd299b76808"/>
  </Objects>
</MasterObjectList>
```

TRUNCATE ACTIVE JOB

Description

Cancel the specified job that is in progress. Any objects in the job that were written in their entirety to physical data stores are retained. Any objects in the job that were received in their entirety in cache are retained. The BlackPearl gateway does not expect any more objects from the job.

Note: This command is an alias for [Truncate Job](#) on page 258.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/active_job/{job_id}/
```

To determine the UUID for a job, see [Get Active Jobs](#) on page 190.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the job)
- 404: Not Found

Example

Sample Request

This request truncates the job with the UUID d79c9e54-0c4f-4e82-8e99-218b03ab02cb.

```
DELETE http://blackpearl-hostname/_rest_/active_job/d79c9e54-0c4f-4e82-8e99-218b03ab02cb/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

TRUNCATE ACTIVE JOBS

Description

Cancel all jobs that are in progress. Any objects in the jobs that were written in their entirety to physical data stores are retained. Any objects in the jobs that were received in their entirety in cache are retained. The BlackPearl gateway does not expect any more objects from the jobs. Use parameters to cancel a subset of the jobs.

Note: This command is an alias for [Truncate Jobs on page 259](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/active_job/[?bucket_id={string}][&request_type=PUT|GET|VERIFY]
```

Request Parameters

Parameter	Description	Required
bucket_id 1	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
request_type	Type of job request. Values: GET, PUT, VERIFY	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the jobs)

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Example

Sample Request

This request truncates all jobs in progress.

```
DELETE http://blackpearl-hostname/_rest_/active_job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

TRUNCATE JOB

Description

Cancel the specified job that is in progress. Any objects in the job that were written in their entirety to physical data stores are retained. Any objects in the job that were received in their entirety in cache are retained. The BlackPearl gateway does not expect any more objects from the job.

Note: This command is an alias for [Cancel Active Job on page 152](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job/{job_id}/
```

To determine the UUID for a job, see [Get Jobs on page 229](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the job)
- 404: Not Found
- 409: Error

Example

Sample Request

This request truncates the job with the UUID 77bd575b-35c7-4586-b0c3-15bd5023c9d7.

```
DELETE http://blackpearl-hostname/_rest_/job/77bd575b-35c7-4586-b0c3-15bd5023c9d7/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

TRUNCATE JOBS

Description

Cancel all jobs that are in progress. Any objects in the jobs that were written in their entirety to physical data stores are retained. Any objects in the jobs that were received in their entirety in cache are retained. The BlackPearl gateway does not expect any more objects from the jobs. Use parameters to cancel a subset of the jobs.

Note: This command is an alias for [Cancel Active Jobs on page 154](#).

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job/[?bucket_id={string}][&request_
type=PUT|GET|VERIFY]
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
request_type	Type of job request. Values: GET , PUT , VERIFY	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Forbidden (user does not have permission to cancel the jobs)

Example

Sample Request

This request truncates all jobs in progress.

```
DELETE http://blackpearl-hostname/_rest_/job/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

VERIFY THAT IT IS SAFE TO CREATE A PUT JOB

Description

Determines if the specified user can safely create a PUT job for the specified bucket at this time. It is not safe to create a PUT job if either of the following are true:

- There is at least one storage domain that cannot write because all of its members are quiesced, offline, in an error state, or otherwise unavailable.
- There are system failures that are likely to prevent data from being written.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/bucket/{bucket name, UUID, or other unique attribute}?operation=VERIFY_SAFE_TO_START_BULK_PUT
```


Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to verify that it is safe to start bulk PUT. Value: VERIFY_SAFE_TO_START_BULK_PUT	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK
- 404: Not Found
- 409: Conflict

Example

Sample Request

This request verifies whether it is safe for the current user to start a PUT job to the bucket named 'bucket1'.

```
PUT http://blackpearl-hostname/_rest_/bucket/bucket1/?operation=VERIFY_SAFE_TO_START_BULK_PUT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

VOLUME C - ACCESS CONTROL OPERATIONS

This section describes operations that controls with users and groups can access which buckets and data policies.

- [Access Control List Operations on page 263](#)
- [Group Operations on page 290](#)
- [User Operations on page 308](#)

CHAPTER 8 - ACCESS CONTROL LIST OPERATIONS

This section describes operations working with Access Control Lists (ACLs). ACLs grant a specified permission to a specified group or user. Bucket ACLs grant permission to list objects, read objects, write objects, or delete objects in the bucket, modify or delete jobs, or do anything that the bucket owner can do (permission to do all other operations). Data policy ACLs grant permission to use the specified data policy.

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CREATE BUCKET ACL FOR A GROUP

Description

Create an ACL for a bucket, granting the specified permission to the specified group.

Notes:

- Only administrators and users with OWNER access to the bucket are allowed to create an ACL for it.
- A single operation can only grant one permission. To grant multiple permissions, submit the request multiple times with different permissions specified.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/bucket_acl/?bucket_id={string}&group_id={string}&permission=LIST|READ|WRITE|DELETE|JOB|OWNER
```

Request Parameters

Parameter	Description	Required
bucket_id	The UUID, name, or other unique attribute for the bucket.	yes
group_id	The UUID, name, or other unique attribute for the group to which you want to grant the specified permission.	yes

Parameter	Description	Required
permission	<p>The type of permission to grant to each user that is a member of the group.</p> <ul style="list-style-type: none"> • LIST — The users in the group can see the bucket in a get buckets request and can list the objects in a bucket. The users can also perform any type of bucket or object get that does not involve returning the actual data for an object. • READ — The users can get objects and create GET jobs. • WRITE — The users can put objects and create PUT jobs. • DELETE — The users can delete objects, but cannot delete the bucket. • JOB — The group members can modify or cancel jobs that they did not create. The users can also see the details of jobs they did not create. Note that all users can view all jobs, but by default, only the initiator of the job can see the full details of a job. • OWNER — The users receives full access to the bucket, including all permissions listed above, and also receives permission to modify bucket ACLs for that bucket. <p>Values: LIST, READ, WRITE, DELETE, JOB, OWNER</p>	yes

Responses

Response Elements

```

<Data>
  <BucketId>{string}</BucketId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <Permission>LIST|READ|WRITE|DELETE|JOB|OWNER</Permission>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
GroupId	The UUID for the group granted permission.
Id	The UUID for the ACL.

Parameter	Description
Permission	The permission granted by this ACL. See permission on page 265 , above, for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER
Userld	Always null for this operation.

Example

Sample Request

This request creates an ACL for the group with the UUID 241e5aa4-e821-4a72-a8d7-bd4ee3ad80bb to be able to list objects in the bucket with the name "bucket1".

```
POST http[s]://blackpearl-hostname/_rest_/bucket_acl/?bucket_id=bucket1&group_id=241e5aa4-e821-4a72-a8d7-bd4ee3ad80bb&permission=list HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
<BucketId>49c78eaf-bd36-4d31-8561-cae9857954f4</BucketId>
```

```
<GroupId>241e5aa4-e821-4a72-a8d7-bd4ee3ad80bb</GroupId>
```

```
<Id>371c7ca9-a776-4b6a-810f-a1d8e074a915</Id>
```

```
<Permission>LIST</Permission>
```

```
<UserId/>
```

```
</Data>
```

CREATE BUCKET ACL FOR A USER

Description

Create an ACL for a bucket, granting the specified permission to the specified user.

Notes:

- Only administrators and users with OWNER access to the bucket are allowed to create an ACL for it.
- A single operation can only grant one permission. To grant multiple permissions, submit the request multiple times with different permissions specified.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/bucket_acl/?bucket_id=
{string}&permission=LIST|READ|WRITE|DELETE|JOB|OWNER&user_id={string}
```

Request Parameters

Parameter	Description	Required
bucket_id	The UUID, name, or other unique attribute for the bucket.	yes
permission	The type of permission to grant. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER	yes
user_id	The UUID, username, or other unique attribute for the user to whom you want to grant the specified permission.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <Permission>LIST|READ|WRITE|DELETE|JOB|OWNER</Permission>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
GroupId	Always null for this operation.
Id	The UUID for the ACL.

Parameter	Description
Permission	The permission granted by this ACL. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER
UserId	The UUID for the user granted permission.

Example

Sample Request

This request creates an ACL for the user with the UUID bc2b161c-e7fb-4f08-bddd-65bb3cb56ebc to be able to list objects in the bucket with the name "bucket2".

```
POST http[s]://blackpearl-hostname/_rest_/bucket_acl/?bucket_id=bucket2&user_id=bc2b161c-e7fb-4f08-bddd-65bb3cb56ebc&permission=list HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
<BucketId>c76ab540-9ef6-4665-bd81-af0cce744ef6</BucketId>
```

```
<GroupId/>
```

```
<Id>d476fe78-d76b-40d6-ad64-1d2c130425d3</Id>
```

```
<Permission>LIST</Permission>
```

```
<UserId>bc2b161c-e7fb-4f08-bddd-65bb3cb56ebc</UserId>
```

```
</Data>
```

CREATE DATA POLICY ACL FOR A GROUP

Description

Create an ACL for a data policy, granting the specified group access to use the data policy.

Notes:

- Only administrators are allowed to create a data policy ACL.
- Users that do not have data policy ACL access to any data policies cannot create a bucket.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_policy_acl/?data_policy_id=
{string}&group_id={string}
```

Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	yes
group_id	The UUID, name, or other unique attribute for the group to which you want to grant access to use the data policy.	yes

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
GroupId	The UUID for the group granted access.
Id	The UUID for the ACL.
UserId	Always null for this operation.

Example

Sample Request

This request creates an ACL for the group with the UUID f98d5bc9-e4ab-4abc-94fd-87ea7619c5b6 to be able to use the data policy with the name “dp1”.

```
POST http[s]://blackpearl-hostname/_rest_/data_policy_acl/?data_policy_id=dp1&group_id=f98d5bc9-e4ab-4abc-94fd-87ea7619c5b6 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <DataPolicyId>
    6ede1b61-6113-4904-acef-82e0c27efd58
  </DataPolicyId>
  <GroupId>f98d5bc9-e4ab-4abc-94fd-87ea7619c5b6</GroupId>
  <Id>d17f7f75-678f-4c06-9ba9-469ad424b0c1</Id>
  <UserId/>
</Data>
```

CREATE DATA POLICY ACL FOR A USER

Description

Create an ACL for a data policy, granting the specified user access to use the data policy.

Notes:

- Only administrators are allowed to create a data policy ACL.
- Users that do not have data policy ACL access to any data policies cannot create a bucket.
- By default, the BlackPearl gateway creates a global data policy ACL for the “everyone” group, granting every user access to use every data policy.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_policy_acl/?data_policy_id={string}&user_id={string}
```

Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	yes
user_id	The UUID, username, or other unique attribute for the user to whom you want to grant access to use the data policy.	yes

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
GroupId	Always null for this operation.
Id	The UUID for the ACL.
UserId	The UUID for the user granted access.

Example

Sample Request

This request creates an ACL for the user with the username user1 to be able to use the data policy with the name “dp1”.

```
POST http[s]://blackpearl-hostname/_rest_/data_policy_acl/?data_policy_id=dp1&user_id=user1 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <DataPolicyId>
    6ede1b61-6113-4904-acef-82e0c27efd58
  </DataPolicyId>
  <GroupId/>
  <Id>5e5812aa-74f0-4e82-879e-d0adcbacdee5</Id>
  <UserId>c3407618-ff6c-4f5f-8aab-1b17d6881612</UserId>
</Data>
```

CREATE GLOBAL BUCKET ACL FOR A GROUP

Description

Create an ACL for all buckets, including those already created and those that will be created, granting the specified permission to the specified group.

Note: Only administrators are allowed to create a global bucket ACL.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/bucket_acl/?group_id=
{string}&permission=LIST|READ|WRITE|DELETE|JOB|OWNER
```

Request Parameters

Parameter	Description	Required
group_id	The UUID, name, or other unique attribute for the group to which you want to grant the specified permission.	yes
permission	The type of permission to grant. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <Permission>LIST|READ|WRITE|DELETE|JOB|OWNER</Permission>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	Always null for this operation.
GroupId	The UUID for the group granted permission.
Id	The UUID for the ACL.
Permission	The permission granted by this ACL. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER
UserId	Always null for this operation.

Example

Sample Request

This request creates an ACL for the group with the UUID 1afdf1e6-2f60-4765-89b1-bf8c09d7b8a8 to be able to list objects in all buckets.

```
POST http[s]://blackpearl-hostname/_rest_/bucket_acl/?permission=list&group_id=1afdf1e6-2f60-4765-89b1-bf8c09d7b8a8 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <BucketId/>
  <GroupId>1afdf1e6-2f60-4765-89b1-bf8c09d7b8a8</GroupId>
  <Id>dca36600-5b3b-405e-a368-e631e78a338d</Id>
  <Permission>LIST</Permission>
  <UserId/>
</Data>
```

CREATE GLOBAL BUCKET ACL FOR A USER

Description

Create an ACL for all buckets, including those already created and those that will be created, granting the specified permission to the specified user.

Note: Only administrators are allowed to create a global bucket ACL.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/bucket_
acl/?permission=LIST|READ|WRITE|DELETE|JOB|OWNER&user_id={string}
```

Request Parameters

Parameter	Description	Required
permission	The type of permission to grant. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER	yes
user_id	The UUID, username, or other unique attribute for the user to whom you want to grant the specified permission.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <Permission>LIST|READ|WRITE|DELETE|JOB|OWNER</Permission>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	Always null for this operation.
GroupId	Always null for this operation.
Id	The UUID for the ACL.
Permission	The permission granted by this ACL. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER
UserId	The UUID for the user granted permission.

Example

Sample Request

This request creates an ACL for the user with the UUID `ceb405c4-aa4e-4b1d-9e93-312c40901671` to be able to list objects in all buckets.

```
POST http[s]://blackpearl-hostname/_rest_/bucket_acl/?permission=list&user_
id=ceb405c4-aa4e-4b1d-9e93-312c40901671 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <BucketId/>
  <GroupId/>
  <Id>72475859-6b28-46f8-b105-068cd87347b3</Id>
  <Permission>LIST</Permission>
  <UserId>ceb405c4-aa4e-4b1d-9e93-312c40901671</UserId>
</Data>
```

CREATE GLOBAL DATA POLICY ACL FOR A GROUP

Create an ACL for all data policies, including those already created and those that will be created, granting the specified group access to use any data policy.

Note: Only administrators are allowed to create a global data policy ACL.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_policy_acl/?group_id={string}
```

Request Parameters

Parameter	Description	Required
group_id	The UUID, name, or other unique attribute for the group to which you want to grant permission to use all data policies.	yes

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <UserId>{string}</UserId>
</Data>
```


where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	Always null for this operation.
GroupId	The UUID for the group granted access.
Id	The UUID for the ACL.
UserId	Always null for this operation.

Example

Sample Request

This request creates an ACL for the group with the UUID 29090054-ecfb-4d64-8e68-87194b8a1c35 to be able to use any data policy.

```
POST http[s]://blackpearl-hostname/_rest_/data_policy_acl/?group_id=29090054-ecfb-4d64-8e68-87194b8a1c35 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <DataPolicyId/>
  <GroupId>29090054-ecfb-4d64-8e68-87194b8a1c35</GroupId>
  <Id>dbb1643e-081e-4f32-b26f-ba5dd80d77c4</Id>
  </UserId>
</Data>
```

CREATE GLOBAL DATA POLICY ACL FOR A USER

Create an ACL for all data policies, including those already created and those that will be created, granting the specified user access to use any data policy.

Note: Only administrators are allowed to create a global data policy ACL.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_policy_acl/?user_id={string}
```

Request Parameters

Parameter	Description	Required
user_id	The UUID, username, or other unique attribute for the user to whom you want to grant permission to use all data policies.	yes

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	Always null for this operation.
GroupId	Always null for this operation.
Id	The UUID for the ACL.
UserId	The UUID for the user granted access.

Example

Sample Request

This request creates an ACL for the user with the UUID 817e7fd2-6516-48fa-be69-4b07667543bc to be able to use any data policy.

```
POST http[s]://blackpearl-hostname/_rest_/data_policy_acl/?user_id=817e7fd2-6516-48fa-be69-4b07667543bc HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <DataPolicyId/>
  <GroupId/>
  <Id>0e61eb85-8715-46c0-9c6b-ec3d3e26203c</Id>
  <UserId>817e7fd2-6516-48fa-be69-4b07667543bc</UserId>
</Data>
```

DELETE BUCKET ACL

Deletes the specified bucket ACL.

Notes:

- If the ACL being deleted is global (applies across all buckets), the operation is only allowed for administrators.
- If the ACL being deleted is specific to a bucket, the operation is allowed for the bucket owners and administrators.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/bucket_acl/{ACL UUID or other unique attribute}/
```

To determine the UUID for an ACL, see [Get Bucket ACLs on page 283](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the bucket ACL with the UUID d5854e48-7226-4c06-ab11-15489e917176.

```
DELETE http://blackpearl-hostname/_rest_/bucket_acl/d5854e48-7226-4c06-ab11-15489e917176/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE DATA POLICY ACL

Deletes the specified data policy ACL.

Note: Only administrators are allowed to delete a data policy ACL.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/data_policy_acl/{ACL UUID or other unique attribute}/
```

To determine the UUID for an ACL, see [Get Data Policy ACLs on page 287](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the data policy ACL with the UUID 0448f895-aeb2-446f-a20d-b056a451b3b2.

```
DELETE http://blackpearl-hostname/_rest_/data_policy_acl/0448f895-aeb2-446f-a20d-b056a451b3b2/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET BUCKET ACL

Get information about the specified bucket ACL.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket_acl/{ACL UUID or other unique attribute}/
```

To determine the UUID for an ACL, see [Get Bucket ACLs on page 283](#).

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <Permission>LIST|READ|WRITE|DELETE|JOB|OWNER</Permission>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
GroupId	The UUID for the group granted permission.
Id	The UUID for the ACL.
Permission	The permission granted by this ACL. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER
UserId	The UUID of the user granted permission.

Example

Sample Request

This request gets information about the bucket ACL with UUID 48b0b0fe-0554-4b96-929c-37c842c80e55.

```
GET http[s]://blackpearl-hostname/_rest_/bucket_acl/48b0b0fe-0554-4b96-929c-37c842c80e55/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <BucketId>29116f1d-fd37-4d8b-9501-448f51d8eb81</BucketId>
  <GroupId/>
  <Id>48b0b0fe-0554-4b96-929c-37c842c80e55</Id>
  <Permission>OWNER</Permission>
  <UserId>a8040c5d-9066-438e-8451-2ea26ca27115</UserId>
</Data>
```

GET BUCKET ACLS

Get information about all bucket ACLs for the specified bucket. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket_acl/?bucket_id={string} [&group_id={string}] [&last_page] [&page_length={32-bit integer}] [&page_offset={32-bit integer}] [&page_start_marker={string}] [&permission=LIST|READ|WRITE|DELETE|JOB|OWNER] [&user_id={string}]
```

Request Parameters

Parameter	Description	Required
bucket_id	The UUID, name, or other unique attribute for the bucket.	no
group_id ¹	The UUID, name, or other unique attribute for the group.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of ACLs to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first ACL to list. Default: 0.	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
permission	The permission granted by the ACL. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER	no
user_id ¹	The UUID, username, or other unique attribute for the user.	no

Responses

Response Elements

```
<Data>
  <BucketAcl>
    <BucketId>{string}</BucketId>
    <GroupId>{string}</GroupId>
    <Id>{string}</Id>
    <Permission>LIST|READ|WRITE|DELETE|JOB|OWNER</Permission>
    <UserId>{string}</UserId>
  <BucketAcl>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketAcl	The container for information about one ACL.
BucketId	The UUID for the bucket.
GroupId	The UUID for the group granted permission.
Id	The UUID for the ACL.

Parameter	Description
Permission	The permission granted by this ACL. See permission on page 265 for a description. Values: LIST, READ, WRITE, DELETE, JOB, OWNER
Userld	The UUID of the user granted permission.

Example

Sample Request

This request gets information about the ACLs for the bucket with the name "bucket1".

```
GET http[s]://blackpearl-hostname/_rest_/bucket_acl/?bucket_id=bucket1 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<BucketAcl>
```

```
<BucketId>a4752f84-f206-4273-bee3-ed8e279e292</BucketId>
```

```
<GroupId/>
```

```
<Id>11d71c40-629e-478a-bfae-514e83a154f2</Id>
```

```
<Permission>OWNER</Permission>
```

```
<UserId>9adea849-42ae-4d94-ad86-85a113a63991</UserId>
```

```
</BucketAcl>
```

```
</Data>
```

GET DATA POLICY ACL

Get information about the specified data policy ACL.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_policy_acl/{ACL UUID or other unique attribute}/
```

To determine the UUID for an ACL, see [Get Data Policy ACLs on page 287](#).

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
GroupId	The UUID for the group granted access.
Id	The UUID for the ACL.
UserId	The UUID of the user granted access.

Example

Sample Request

This request gets information about the data policy ACL with UUID 92f4dfa7-98b7-43d2-95af-a42a92d2372e.

```
GET http[s]://blackpearl-hostname/_rest_/data_policy_acl/92f4dfa7-98b7-43d2-95af-
a42a92d2372e/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <DataPolicyAcl>92f4dfa7-98b7-43d2-95af-a42a92d2372e</DataPolicyAcl>
  <GroupId>cd8bf7f2-5da4-46f6-a1ba-fdf2ede6e9ec</GroupId>
  <Id>92f4dfa7-98b7-43d2-95af-a42a92d2372e</Id>
  <UserId/>
</Data>
```

GET DATA POLICY ACLS

Get information about all data policy ACLs. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_policy_acl/[?data_policy_id={string}]
[&group_id={string}][&last_page][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	yes
group_id ¹	The UUID, name, or other unique attribute for the group.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of ACLs to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first ACL to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user.	no

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```
<Data>
  <DataPolicyAcl>
    <DataPolicyId>{string}</DataPolicyId>
    <GroupId>{string}</GroupId>
    <Id>{string}</Id>
    <UserId>{string}</UserId>
  </DataPolicyAcl>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyAcl	The container for information about one ACL.
DataPolicyId	The UUID for the data policy.
GroupId	The UUID for the group granted access.
Id	The UUID for the ACL.
UserId	The UUID of the user granted access.

Example

Sample Request

This request gets information about the ACLs for all data policies.

```
GET http[s]://blackpearl-hostname/_rest_/data_policy_acl/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

<Data>

<DataPolicyAcl>

<DataPolicyId>

2ae695d0-ed75-48fc-bd96-520d8a7e3ea3

</DataPolicyId>

<GroupId>718246b3-862d-4d9e-9164-8d33c56462a1</GroupId>

<Id>47f1af11-a54e-42c3-a898-8c5666ead291</Id>

<UserId/>

</DataPolicyAcl>

</Data>

CHAPTER 9 - GROUP OPERATIONS

Groups are used for defining access. They are created by adding users and other groups as members. The BlackPearl gateway has built in groups named Administrators, Everyone, and Tape Admins.

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ADD GROUP AS GROUP MEMBER

Description

Adds the specified group (`member_group_id`) as a member of the specified group (`group_id`).

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/group_member/?group_id={string}&member_group_id={string}
```

Request Parameters

Parameter	Description	Required
group_id	The UUID, name, or other unique attribute of the group to which a member is being added. To determine the UUID for a group, see Get Groups on page 303 .	yes
member_group_id	The UUID, name, or other unique attribute of the group to be added. To determine the UUID for a group, see Get Groups on page 303 .	yes

Responses

Response Elements

```

<Data>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <MemberGroupId>{string}</MemberGroupId>
  <MemberUserId/>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
GroupId	The UUID for the group to which the other group was added.
Id	The UUID for the membership of the sub-group in the group.
MemberGroupId	The UUID for the group that was added.
MemberUserId	Always null for this operation.

Example

Sample Request

This request adds a group with the UUID 9b98baac-06d9-4913-a4df-7aed0ab1cf31 as a member to the group named "Administrators".

```
POST http[s]://blackpearl-hostname/_rest_/group_member/?group_id=Administrators&member_group_id=9b98baac-06d9-4913-a4df-7aed0ab1cf31 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
  <GroupId>886f1f87-cdf1-40fc-8484-6e6c908c1f3b</GroupId>
```

```
  <Id>e01af5f6-4780-41ec-aeb5-a13201d0876f</Id>
```

```
  <MemberGroupId>
```

```
    9b98baac-06d9-4913-a4df-7aed0ab1cf31
```

```
  </MemberGroupId>
```

```
  <MemberUserId/>
```

```
</Data>
```

ADD USER AS GROUP MEMBER

Description

Add the specified user as a member of the specified group.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/group_member/?group_id={string}&member_user_id={string}
```


Request Parameters

Parameter	Description	Required
group_id	The UUID, name, or other unique attribute of the group to which a member is being added. To determine the UUID for a group, see Get Groups on page 303 .	yes
member_user_id	User UUID, name, or other unique attribute of the user to be added. To determine the UUID for a user, see Get Users on page 313 .	yes

Responses

Response Elements

```
<Data>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <MemberGroupId/>{string}</MemberGroupId>
  <MemberUserId>{string}</MemberUserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
GroupId	The UUID for the group to which the user was added.
Id	The UUID for the membership of the user in the group.
MemberGroupId	Always null for this operation.
MemberUserId	The UUID for the user added to the group.

Example

Sample Request

This request adds the user “MJ” to the group named “Accounting”.

```
POST http[s]://blackpearl-hostname/_rest_/group_member/?group_id=Accounting&member_user_id=MJ HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <GroupId>3962c577-5ddb-466f-bb56-a0c7e3019c81</GroupId>
  <Id>96dd02c6-4690-435f-8a7a-a9754b772b6d</Id>
  <MemberGroupId/>
  <MemberUserId>
    2aea0681-e80b-4d9d-9119-d6653a00ched
  </MemberUserId>
</Data>
```

CREATE GROUP

Description

Create a group.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/group/?name={string}
```

Request Parameters

Parameter	Description	Required
name	The name for the group.	yes

Responses

Response Elements

```
<Data>
  <BuiltIn>TRUE|FALSE</BuiltIn>
  <Id>{string}</Id>
  <Name>{string}</Name>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BuiltIn	Whether the group is a standard group automatically available on the BlackPearl gateway. Always FALSE for this request.
Id	The UUID for the group.
Name	The name of the group.

Example

Sample Request

This request creates a group with the name "Accounting".

```
POST http://blackpearl-hostname/_rest_/group/?name=Accounting HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <BuiltIn>FALSE</BuiltIn>
  <Id>3962c577-5ddb-466f-bb56-a0c7e3019c81</Id>
  <Name>Accounting</Name>
</Data>
```

DELETE GROUP

Description

Deletes the specified group.

Note: You cannot delete built in groups.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/group/{group UUID, name, or other unique attribute}/
```

To determine the UUID for a group, see [Get Groups on page 303](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the group with the name “Accounting”.

```
DELETE http[s]://blackpearl-hostname/_rest_/group/Accounting/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE GROUP MEMBER

Description

Deletes the group member (sub-group or user) from a group.

Note: You cannot delete group members automatically added to built in groups.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/group_member/{group member UUID or other unique attribute}/
```

To determine the UUID for a group member, see [Get Group Members on page 299](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the group member with the UUID e81bbe7a-faea-4d3b-ba5c-60aa603f8c4a.

```
DELETE http[s]://blackpearl-hostname/_rest_/group_member/e81bbe7a-faea-4d3b-ba5c-60aa603f8c4a/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET GROUP MEMBER

Description

Get information about the specified group membership (either a user member or a group member).

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/group_member/{group membership UUID or other unique attribute}/
```

To determine the UUID for a group member, see [Get Group Members on page 299](#).

Responses

Response Elements

```
<Data>
  <GroupId>{string}</GroupId>
  <Id>{string}</Id>
  <MemberGroupId>{string}</MemberGroupId>
  <MemberUserId>{string}</MemberUserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
GroupId	The UUID for the group.
Id	The UUID for the membership of the sub-group or user in the group.
MemberGroupId	The UUID for the sub-group included in the group.
MemberUserId	The UUID for the user included in the group.

Example

Sample Request

This request gets information about the group member with the UUID fd71ae41-42e2-4f15-96e2-ef802060434e.

```
GET http://blackpearl-hostname/_rest_/group_member/fd71ae41-42e2-4f15-96e2-ef802060434eb/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <GroupId>b3fa774c-ac2e-44a4-b1b5-4cfa3a3ec209</GroupId>
  <Id>fd71ae41-42e2-4f15-96e2-ef802060434e</Id>
  <MemberGroupId>
    663fd04e-4d46-4b6e-bbaa-9bcf31b94f90
  </MemberGroupId>
  <MemberUserId/>
</Data>
```

GET GROUP MEMBERS

Description

Get information about group members for all groups. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/group_member/[?group_id={string}][&last_page]
[&member_group_id={string}][&member_user_id={string}][&page_length={32-bit integer}]
[&page_offset={32-bit integer}][&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
group_id	The group UUID, name, or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
member_group_id	The UUID or other unique attribute of a group that is a member of another group. To determine the UUID for a group, see Get Groups on page 303 .	no
member_user_id	User UUID or other unique attribute of a user within a group. To determine the UUID for a user, see Get Users on page 313 .	no

Parameter	Description	Required
page_length	The maximum number of group members to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first group member to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```

<Data>
  <GroupMember>
    <GroupId>{string}</GroupId>
    <Id>{string}</Id>
    <MemberGroupId>{string}</MemberGroupId>
    <MemberUserId>{string}</MemberUserId>
  </GroupMember>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
GroupMember	The container for information about one group member.
GroupId	The UUID for the group.
Id	The UUID for the group membership.
MemberGroupId	The UUID for the sub-group included in the larger group.
MemberUserId	The UUID for the user included in the group.

Example

Sample Request

This request gets information about all group members on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/group_member/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <GroupMember>
```

```
    <GroupId>4a4efdf7-1540-4b79-b015-feb6ee6cb238</GroupId>
```

```
    <Id>3a81721c-ed32-4525-9f71-ab2c55f81942</Id>
```

```
    <MemberGroupId>
```

```
      94dedcfb-7520-4b11-8215-325bc27a2d9f
```

```
    </MemberGroupId>
```

```
    <MemberUserId/>
```

```
  </GroupMember>
```

```
  <GroupMember>
```

```
    <GroupId>4a4efdf7-1540-4b79-b015-feb6ee6cb238</GroupId>
```

```
    <Id>d9f2e9c1-5b66-4dd9-88ce-0216f5ffdc3a</Id>
```

```
    <MemberGroupId/>
```

```
    <MemberUserId>
```

```
      8f885fe0-87c7-427e-a82b-ad33df9d5a15
```

```
    </MemberUserId>
```

```
  </GroupMember>
```

```
  ...
```

```
</Data>
```

GET GROUP

Description

Get information about the specified group.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/group/{group UUID, name, or other unique attribute}/
```

To determine the UUID for a group, see [Get Groups on page 303](#).

Responses

Response Elements

```
<Data>
  <BuiltIn>TRUE | FALSE</BuiltIn>
  <Id>{string}</Id>
  <Name>{string}</Name>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BuiltIn	Whether the group is a standard group automatically available on the BlackPearl gateway.
Id	The UUID for the group.
Name	The name of the group.

Example

Sample Request

This request gets information about the group with the name “group1”.

```
GET http://blackpearl-hostname/_rest_/group/group1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <BuiltIn>FALSE</BuiltIn>
  <Id>d8932062-3f22-4cd5-b296-b6d5d3558889</Id>
  <Name>group1</Name>
</Data>
```

GET GROUPS

Description

Get information about all groups. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/group/[?built_in=TRUE|FALSE][&last_page]
[&name={string}][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
built_in	Whether the group is a standard group automatically available on the BlackPearl gateway.	no
last_page	If included, only the last page of results is returned.	no
name	The name of the group.	no
page_length	The maximum number of groups to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first group to list. Default: 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```
<Data>
  <Group>
    <BuiltIn>TRUE|FALSE</BuiltIn>
    <Id>{string}</Id>
    <Name>{string}</Name>
  </Group>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Group	The container for information about one group.
BuiltIn	Whether the group is a standard group automatically available on the BlackPearl gateway.
Id	The UUID for the group.
Name	The name of the group.

Example

Sample Request

This request gets information about all groups on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/group/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Group>
    <BuiltIn>TRUE</BuiltIn>
    <Id>50993790-d245-41cf-bbde-f3aa5d9f717c</Id>
    <Name>Administrators</Name>
  </Group>
  <Group>
    <BuiltIn>FALSE</BuiltIn>
    <Id>dd73394b-fae6-4a35-b1f3-cfe8fd71ee2d</Id>
    <Name>group1</Name>
  </Group>
</Data>
```

MODIFY GROUP

Description

Modify the name of a group.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/group/{group UUID, name, or other unique attribute}?name={string}
```

To determine the UUID for a group, see [Get Groups on page 303](#).

Request Parameters

Parameter	Description	Required
name	The new name for the group.	yes

Responses

Response Elements

```
<Data>
  <BuiltIn>TRUE|FALSE</BuiltIn>
  <Id>{string}</Id>
  <Name>{string}</Name>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BuiltIn	Whether the group is a standard group automatically available on the BlackPearl gateway.
Id	The UUID for the group.
Name	The name of the group.

Example

Sample Request

This request modifies the name of the group from “group1” to “Accounting”.

```
PUT http://blackpearl-hostname/_rest_/group/group1/?name=Accounting HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <BuiltIn>FALSE</BuiltIn>
  <Id>f587c38f-69bc-463a-a094-bd31ad2e94ae</Id>
  <Name>Accounting</Name>
</Data>
```

VERIFY GROUP MEMBERSHIP

Description

Verifies that the specified user is a member of the specified group.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/group/{group UUID or other unique attribute}?operation=VERIFY[&user_id={string}]
```

To determine the UUID for a group member, see [Get Group Members on page 299](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to verify membership. Value: VERIFY	yes
user_id	User UUID, name, or other unique attribute of the user to be whose membership is being verified. To determine the UUID for a user, see Get Users on page 313 . Note: If the <i>user_id</i> parameter is not included, the membership of the user performing the request is verified.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 200: OK
- 204: No Content (the user is not recognized as a member)

Example

Sample Request

This request verifies that the user named “user1” is a member of the group Administrators.

```
PUT http[s]://blackpearl-hostname/_rest_/group/?operation=VERIFY&user_Id=user1
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

CHAPTER 10 - USER OPERATIONS

This chapter describes operations for working with users.

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Get Users	313
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Regenerate Secret Key	318

DELEGATE CREATE USER

Description

Delegates a create user request to the management path. Users can only be created and deleted using the management path. This command sends the create user request to the management path.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/user_internal/?name={string} [&default_data_policy_id={string}] [&max_buckets={32-bit integer}] [&id={string}] [&secret_key={string}]
```

To determine the UUID for a user, see [Get Users on page 313](#).

Request Parameters

Parameter	Description	Required
name	The username for the user. Note: The username cannot contain capital letters or spaces.	yes

Parameter	Description	Required
default_data_policy_id	The UUID, name, or other unique attribute for the default data policy used if no data policy is specified when the user creates a bucket.	no
max_buckets	The maximum number of buckets that the user can create. The default is 10000.	no
id	The UUID to assign to the new user.	no
secret_key	The S3 secret key to assign to the new user.	no

Responses

Response Elements

```
<Data>
  <AuthId>{string}</AuthId>
  <DefaultDataPolicyId>{string}</DefaultDataPolicyId>
  <Id>{string}</Id>
  <MaxBuckets>{32-bit integer}</MaxBuckets>
  <Name>{string}</Name>
  <SecretKey>{string}</SecretKey>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AuthId	The S3 access ID assigned to the user.
DefaultDataPolicyId	The default data policy used if no data policy is specified when this user creates a bucket.
Id	The UUID for the user.
MaxBuckets	The maximum number of buckets that the user can create.
Name	The username of the user.
SecretKey	The S3 secret key assigned to the user.

Example

Sample Request

This request creates the user with the username “user1”.

```
POST http://blackpearl-hostname/_rest_/user_internal/?name=user1 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AuthId>c381Y3RyYQ==</AuthId>
  <DefaultDataPolicyId/>
  <Id>b136c431-a59e-413e-b03f-23f7b841ac25</Id>
  <MaxBuckets>10000</MaxBuckets>
  <Name>user1</Name>
  <SecretKey>grHkEdE5</SecretKey>
</Data>
```

DELEGATE DELETE USER

Description

Delegates a delete user request to the management path. Users can only be created and deleted using the management path. This command sends the delete user request to the management path.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/user_internal/{user UUID, name, or other
unique attribute}/
```

To determine the UUID for a user, see [Get Users on page 313](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the user with the username “user1”.

```
DELETE http[s]://blackpearl-hostname/_rest_/user_internal/user1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET USER

Description

Get information about the specified user.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/user/{user UUID, name, or other unique attribute}/
```

To determine the UUID for a user, see [Get Users on page 313](#).

Responses

Response Elements

```
<Data>
  <AuthId>{string}</AuthId>
  <DefaultDataPolicyId>{string}</DefaultDatePolicyId>
  <Id>{string}</Id>
  <MaxBuckets>{32-bit integer}</MaxBuckets>
  <Name>{string}</Name>
  <SecretKey>{string}</SecretKey>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AuthId	The S3 access ID assigned to the user.
DefaultDataPolicyId	The default data policy used if no data policy is specified when this user creates a bucket.
Id	The UUID for the user.
MaxBuckets	The maximum number of buckets that the user can create.
Name	The username of the user.
SecretKey	The S3 secret key assigned to the user.

Example

Sample Request

This request gets information about the user with the name “user1”.

```
GET http://blackpearl-hostname/_rest_/user/user1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AuthId>c381Y3RyYQ==</AuthId>
  <DefaultDataPolicyId/>
  <Id>b136c431-a59e-413e-b03f-23f7b841ac25</Id>
  <MaxBuckets>10000</MaxBuckets>
  <Name>user1</Name>
  <SecretKey>grHkEdE5</SecretKey>
</Data>
```

GET USERS

Description

Get information about all users. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/user/[?auth_id={string}][&default_data_policy_id={string}][&last_page][&name={string}][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
auth_id	The S3 access ID assigned to the user.	no
default_data_policy_id	The default data policy used if no data policy is specified when the user creates a bucket.	no
last_page	If included, only the last page of results is returned.	no
name	The username of the user.	no
page_length	The maximum number of users to list. Default: all items after <code>page_offset</code> .	no

Parameter	Description	Required
page_offset	The starting point for the first user to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```
<Data>
  <User>
    <AuthId>{string}</AuthId>
    <DefaultDataPolicyId>{string}</DefaultDataPolicyId>
    <Id>{string}</Id>
    <MaxBuckets>{32-bit integer}</MaxBuckets>
    <Name>{string}</Name>
    <SecretKey>{string}</SecretKey>
  </User>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
User	The container for information about one user.
AuthId	The S3 access ID assigned to the user.
DefaultDataPolicyId	The UUID for the default data policy used if no data policy is specified when this user creates a bucket.
Id	The UUID for the user.

Parameter	Description
MaxBuckets	The maximum number of buckets that the user can create.
Name	The username of the user.
SecretKey	The S3 secret key assigned to the user.

Example

Sample Request

This request gets information about all users on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/user/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <User>
    <AuthId>c381Y3RyYQ==</AuthId>
    <DefaultDataPolicyId/>
    <Id>b136c431-a59e-413e-b03f-23f7b841ac25</Id>
    <MaxBuckets>10000</MaxBuckets>
    <Name>user1</Name>
    <SecretKey>grHkEdE5</SecretKey>
  </User>
  <User>
    <AuthId>bMV3dxN1cg==</AuthId>
    <DefaultDataPolicyId/>
    <Id>b136c431-a59e-413e-b03f-23f7b841ac25</Id>
    <MaxBuckets>10000</MaxBuckets>
    <Name>user2</Name>
    <SecretKey>GTfLU3pE</SecretKey>
  </User>
</Data>
```

MODIFY USER

Description

Modify the name or default data policy for a user.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/user/{user UUID, name, or other unique attribute}/[?default_data_policy_id={string}][&max_buckets={32-bit integer}][&name={string}][&secret_key={string}]
```

To determine the UUID for a user, see [Get Users on page 313](#).

Request Parameters

Parameter	Description	Required
default_data_policy_id	The UUID, name, or other unique attribute for the default data policy used if no data policy is specified when this user creates a bucket.	no
max_buckets	The maximum number of buckets that the user can create.	no
name	The new username for the user.	no
secret_key	The S3 secret key to assign to the user.	no

Responses

Response Elements

```
<Data>
  <AuthId>{string}</AuthId>
  <DefaultDataPolicyId>{string}</DefaultDatePolicyId>
  <Id>{string}</Id>
  <MaxBuckets>{32-bit integer}</MaxBuckets>
  <Name>{string}</Name>
  <SecretKey>{string}</SecretKey>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AuthId	The S3 access ID assigned to the user.
DefaultDataPolicyId	The default data policy used if no data policy is specified when this user creates a bucket.
Id	The UUID for the user.
MaxBuckets	The maximum number of buckets that the user can create.
Name	The username of the user.
SecretKey	The S3 secret key assigned to the user.

Example

Sample Request

This request modifies the user with the username “user1” to use the default data policy “Accounting”.

```
PUT http://blackpearl-hostname/_rest_/user/user1/?default_data_policy_id=Accounting
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AuthId>c381Y3RyYQ==</AuthId>
  <DefaultDataPolicyId>
    0b6ef313-09d3-4a40-b43e-f4cb01b352ad
  </DefaultDataPolicyId>
  <Id>b136c431-a59e-413e-b03f-23f7b841ac25</Id>
  <MaxBuckets>10000</MaxBuckets>
  <Name>user1</Name>
  <SecretKey>grHkEdE5</SecretKey>
</Data>
```

REGENERATE SECRET KEY

Description

Regenerate the S3 secret key for the specified user.

Requests

Syntax

PUT `http[s]://{datapathDNSname}/_rest_/user/{user UUID, name, or other unique attribute}?operation=REGENERATE_SECRET_KEY`

To determine the UUID for a user, see [Get Users on page 313](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to regenerate the S3 secret key. Value: REGENERATE_SECRET_KEY	yes

Responses

Response Elements

```
<Data>
  <AuthId>{string}</AuthId>
  <DefaultDataPolicyId>{string}</DefaultDatePolicyId>
  <Id>{string}</Id>
  <MaxBuckets>{32-bit integer}</MaxBuckets>
  <Name>{string}</Name>
  <SecretKey>{string}</SecretKey>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AuthId	The S3 access ID assigned to the user.
DefaultDataPolicyId	The default data policy used if no data policy is specified when this user creates a bucket.
Id	The UUID for the user.
MaxBuckets	The maximum number of buckets that the user can create.
Name	The username of the user.
SecretKey	The new S3 secret key assigned to the user.

Example

Sample Request

This request regenerates the secret key for the user with the username “user1”.

```
PUT http://blackpearl-hostname/_rest_/user/user1/?operation=REGENERATE_SECRET_KEY
HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AuthId>c381Y3RyYQ==</AuthId>
  <DefaultDataPolicyId>
    0b6ef313-09d3-4a40-b43e-f4cb01b352ad
  </DefaultDataPolicyId>
  <Id>b136c431-a59e-413e-b03f-23f7b841ac25</Id>
  <MaxBuckets>10000</MaxBuckets>
  <Name>user1</Name>
  <SecretKey>d7pJBeAN</SecretKey>
</Data>
```

VOLUME D - ADVANCED BUCKET MANAGEMENT OPERATIONS

This section describes operations that control where data is stored and for how long.

- [Data Policy Operations on page 322](#)
- [Replication Target Operations on page 398](#)
- [Storage Domain Operations on page 540](#)

CHAPTER 11 - DATA POLICY OPERATIONS

A data policy defines data integrity policies, default job attributes, and persistence and replication rules, which define where the BlackPearl gateway writes data and how long it retains data.

A bucket must specify exactly one data policy to use. Multiple buckets can use the same data policy. See [Create Bucket - DS3 on page 70](#) and [Create Bucket \(Put Bucket\) on page 34](#) for more information about assigning a data policy to a bucket.

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--	-----

CREATE DATA PERSISTENCE RULE

Description

Create a data persistence rule for a data policy. Each data policy must have one or more permanent persistence rules. Each persistence rule targets a specified storage domain. The BlackPearl gateway writes data to every storage domain for which there is currently a persistence rule with `type` **PERMANENT** or **TEMPORARY**.

Different persistence rules cannot specify the same storage domain multiple times in the same data policy. Persistence rules can specify the same storage domain across different data policies.

You must create the data policy and storage domain before creating the persistence rule. See [Create Data Policy](#) on page 326 and [Create Storage Domain](#) on page 545.

Note: If you add a temporary persistence rule to a data policy already applied to a bucket, the BlackPearl gateway does not necessarily copy the data to the specified storage domain even if there is existing data within the rule's retention period.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_persistence_rule/?data_policy_id=
{string}&isolation_level=STANDARD|BUCKET_ISOLATED&storage_domain_id=
{string}&type=PERMANENT|TEMPORARY[&minimum_days_to_retain={unsigned 32-bit integer}]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy name, UUID, or other unique attribute.	yes

Parameter	Description	Required
isolation_level	<p>The level of physical isolation required for the data retention. The STANDARD isolation level provides the best capacity utilization and overall performance.</p> <p>Notes:</p> <ul style="list-style-type: none"> • BUCKET_ISOLATED allocates an entire tape or pool to a bucket when needed. Allocating an entire pool to a bucket may use up resources quickly and is not recommended. • The isolation level can always be reduced to STANDARD, but can never be increased to BUCKET_ISOLATED once the data policy is in use by at least one bucket. <p>Values:</p> <ul style="list-style-type: none"> • STANDARD — Data is isolated according to the standard Storage Domain isolation requirements. • BUCKET_ISOLATED — Data from different buckets cannot be mixed on the same physical storage media. 	yes
storage_domain_id	Storage domain UUID or other unique attribute.	yes
type	<p>The type of persistence rule.</p> <p>Values:</p> <ul style="list-style-type: none"> • PERMANENT — A copy of the data is placed in the specified storage domain initially and maintained there permanently. • TEMPORARY — A copy of the data is placed in the specified storage domain initially and maintained there at least until the specified retention period expires. <p>Note: This value is not allowed for a persistence rule targeting a storage domain with a tape partition member.</p>	yes
minimum_days_to_retain	<p>The minimum number of days the data should be retained based on a TEMPORARY persistence rule.</p> <p>Note: The <code>minimum_days_to_retain</code> for a persistence rule targeting a storage domain with a NEARLINE pool (Deep Storage) storage domain member must be 90 days or greater.</p>	required if type is TEMPORARY

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <IsolationLevel>STANDARD|BUCKET_ISOLATED</IsolationLevel>
  <MinimumDaysToRetain>{32-bit integer}</MinimumDaysToRetain>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <Type>PERMANENT|TEMPORARY</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the persistence rule.
IsolationLevel	The level of physical isolation required for the data retention. Values: STANDARD, BUCKET_ISOLATED See isolation_level on page 324 for descriptions.
MinimumDaysToRetain	The minimum number of days the data should be retained based on a TEMPORARY persistence rule.
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
StorageDomainId	The UUID for the storage domain.
Type	The type of persistence rule. Values: PERMANENT, TEMPORARY . See type on page 324 for descriptions.

Example

Sample Request

This request creates a permanent persistence rule with standard isolation level for the data policy with the UUID 044854c9-7557-4136-a374-dddf7c29e370, using the storage domain with the UUID 8ed43978-846a-44c9-8e14-f34179e33a33.

```
POST http[s]://blackpearl-hostname/_rest_/data_persistence_rule/?data_policy_
id=044854c9-7557-4136-a374-dddf7c29e370&isolation_level=STANDARD&storage_domain_
id=8ed43978-846a-44c9-8e14-f34179e33a33&type=PERMANENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <DataPolicyId>
    044854c9-7557-4136-a374-dddf7c29e370
  </DataPolicyId>
  <Id>d8716fda-c2e5-44c6-8bea-713bb147e5e0</Id>
  <IsolationLevel>STANDARD</IsolationLevel>
  <MinimumDaysToRetain/>
  <State>NORMAL</State>
  <StorageDomainId>
    8ed43978-846a-44c9-8e14-f34179e33a33
  </StorageDomainId>
  <Type>PERMANENT</Type>
</Data>
```

CREATE DATA POLICY

Description

Create a data policy.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_policy/?name={string} [&always_force_
put_job_creation=TRUE|FALSE] [&always_minimize_spanning_across_media=TRUE|FALSE]
 [&blobbing_enabled=TRUE|FALSE] [&checksum_type=CRC_32|CRC_32C|MD5|SHA_256|SHA_512]
 [&default_blob_size={64-bit integer}] [&default_get_job_
priority=URGENT|HIGH|NORMAL|LOW] [&default_put_job_priority=URGENT|HIGH|NORMAL|LOW]
 [&default_verify_after_write=TRUE|FALSE] [&default_verify_job_
priority=URGENT|HIGH|NORMAL|LOW] [&end_to_end_crc_required=TRUE|FALSE] [&max_versions_
to_keep={32-bit integer}] [&rebuild_priority=URGENT|HIGH|NORMAL|LOW]
 [&versioning=NONE|KEEP_LATEST|KEEP_MULTIPLE_VERSIONS]
```

Request Parameters

Parameter	Description	Required
name	The name for the data policy.	yes
always_minimize_spanning_across_media	<p>Whether all PUT jobs created using this data policy are configured to minimize spanning across tape media. Minimizing spanning across media is useful when you plan to eject tapes and it is likely that you will retrieve all objects from the PUT job in a single GET job. With this setting, you may only need to import one ejected tape, rather than many tapes, when servicing a GET job.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This setting only applies to tape partitions. • For jobs less than or equal to 1 TB in size, there is an absolute guarantee that the data from the job will never span across multiple tapes. For larger jobs, spanning is minimized, but not completely prevented. You can further reduce the probability of spanning across media by using the CAPACITY write optimization for the storage domains. • Minimizing spanning across media may reduce capacity utilization and performance. <p>Values: TRUE, FALSE (default)</p>	no

Parameter	Description	Required
always_force_put_job_creation	<p>Whether all PUT jobs created for this data policy are created even if one or more replication targets the BlackPearl gateway must PUT to are unavailable, or if there are global issues that would likely prevent the completion of the job.</p> <p>Note: Using this parameter is discouraged, and using it for jobs on both the source and target BlackPearl gateways at the same time is extremely discouraged. Running jobs on both gateways when they are not able to communicate with each other can create replication conflicts that must be manually resolved.</p> <p>Values: TRUE, FALSE (default)</p>	no
blobbing_enabled	<p>Whether or not to enable blobbing. If enabled, an object can be broken up into multiple blobs (binary large objects). If disabled, an object must always have exactly one blob. Blobbing must be enabled to handle objects larger than 1 TB, to use multi-part upload, or to break up an object into multiple blobs. Disabling blobbing guarantees that an object never spans multiple media (for example, tapes), since a blob cannot span multiple media.</p> <p>Values: TRUE (default), FALSE</p>	no
checksum_type	<p>Specifies the type of checksum used to verify data integrity for data in any bucket using this data policy, and the type of checksum required for end-to-end CRC, if specified.</p> <p>Values: CRC_32, CRC_32C, MD5 (default), SHA_256, SHA_512</p> <p>Notes:</p> <ul style="list-style-type: none"> • CRC_32, MD5, and SHA-512 perform the best for their corresponding cryptographic strengths on the BlackPearl gateway. • Using SHA-256 or SHA-512 will reduce single stream performance and may reduce throughput capabilities of the BlackPearl gateway. 	no
default_blob_size	<p>Specifies the maximum blob size used when creating bulk PUT jobs. Blob sizes less than 5 MB are strongly discouraged. Blob sizes less than 50 MB are discouraged. The maximum blob size is 1 TB. Default: 100 GB</p>	no
default_get_job_priority	<p>Specifies the default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly.</p> <p>Values: URGENT, HIGH (default), NORMAL, LOW</p>	no

Parameter	Description	Required
default_put_job_priority	Specifies the default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL (default), LOW	no
default_verify_after_write	Whether data is verified by default after it is written. Values: TRUE, FALSE	no
default_verify_job_priority	Specifies the default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Verify jobs can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW (default)	no
end_to_end_crc_required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE (default)	no
max_versions_to_keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS . The default is 1000.	no
rebuild_priority	Specifies the rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: URGENT, HIGH, NORMAL, LOW (default)	no

Parameter	Description	Required
versioning	<p>The mode of versioning used by the data policy.</p> <p>Values:</p> <ul style="list-style-type: none"> • NONE (default) — Only one version of an object may exist at any time. Attempts to write another object of the same name fail. • KEEP_LATEST — Only one version of the data is available at a time. When a new version of an object is written, the old version is retained until the new version is fully written in compliance with the data policy, and then the old version is deleted. • KEEP_MULTIPLE_VERSIONS — Multiple versions of the object, up to the number specified by <code>max_versions_to_keep</code> are retained. <p>Notes:</p> <ul style="list-style-type: none"> • KEEP_LATEST versioning cannot be used for a data policy which uses a storage domain with <code>ltfs_file_naming=OBJECT_NAME</code> (see <code>ltfs_file_naming</code> on page 548). • KEEP_LATEST requires that the PUT job for the earlier version of the object complete before the PUT of the latest version of the object with the same name in order for the PUT to succeed. <p>CAUTION If the PUT of the earlier version is not complete before the PUT of the latest version, the BlackPearl gateway believes the latest version to be the same object as the earlier version and rejects it, so only the earlier version is retained.</p>	no

Responses

Response Elements

```

<Data>
  <AlwaysForcePutJobCreation>
    TRUE | FALSE
  </AlwaysForcePutJobCreation>
  <AlwaysMinimizeSpanningAcrossMedia>
    TRUE | FALSE
  </AlwaysMinimizeSpanningAcrossMedia>
  <BlobbingEnabled>TRUE | FALSE</BlobbingEnabled>
  <ChecksumType>
    CRC_32 | CRC_32C | MD5 | SHA_256 | SHA_512
  </ChecksumType>
  <CreationDate>YYYY-MM-DDThh:mm:ss.xxxZ</CreationDate>
  <DefaultBlobSize>{64-bit integer}</DefaultBlobSize>

```

```

<DefaultGetJobPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultGetJobPriority>
<DefaultPutJobPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultPutJobPriority>
<DefaultVerifyAfterWrite>TRUE|FALSE</DefaultVerifyAfterWrite>
<DefaultVerifyJobPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultVerifyJobPriority>
<EndToEndCrcRequired>TRUE|FALSE</EndToEndCrcRequired>
<Id>{string}</Id>
<MaxVersionsToKeep>{32-bit integer}</MaxVersionsToKeep>
<Name>{string}</Name>
<RebuildPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</RebuildPriority>
<Versioning>
  NONE|KEEP_LATEST|KEEP_MULTIPLE_VERSIONS
</Versioning>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AlwaysForcePutJobCreation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE, FALSE
AlwaysMinimizeSpanningAcross Media	Whether all PUT jobs created for this data policy are created to minimize spanning across media. Values: TRUE, FALSE . See always_minimize_spanning_across_media on page 327.
BlobbingEnabled	Whether or not blobbing is enabled.
ChecksumType	Type of checksum used to verify data integrity for any operations involving this data policy. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512

Parameter	Description
CreationDate	The date and time the data policy was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DefaultBlobSize	The default preferred maximum blob size.
DefaultGetJob Priority	The default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultPutJob Priority	The default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultVerifyAfterWrite	Whether data is verified by default after it is written. Values: TRUE, FALSE
DefaultVerifyJob Priority	The default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
EndToEndCrc Required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE
Id	The UUID for the data policy.
MaxVersionsTo Keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS .
Name	The name of the data policy.
RebuildPriority	The rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Versioning	The mode of versioning used by the data policy. Values: NONE, KEEP_LATEST, KEEP_MULTIPLE_VERSIONS See versioning on page 330 .

Example

Sample Request

This request creates a data policy with the name “policy1” that uses all data policy defaults.

```
POST http://blackpearl-hostname/_rest_/data_policy/?name=policy1 HTTP/1.1
```


Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AlwaysForcePutJobCreation>FALSE</AlwaysForcePutJobCreation>
  <AlwaysMinimizeSpanningAcrossMedia>
    FALSE
  </AlwaysMinimizeSpanningAcrossMedia>
  <BlobbingEnabled>TRUE</BlobbingEnabled>
  <ChecksumType>MD5</ChecksumType>
  <CreationDate>2015-07-29 16:26:12.305</CreationDate>
  <DefaultBlobSize/>
  <DefaultGetJobPriority>HIGH</DefaultGetJobPriority>
  <DefaultPutJobPriority>NORMAL</DefaultPutJobPriority>
  <DefaultVerifyJobPriority>LOW</DefaultVerifyJobPriority>
  <EndToEndCrcRequired>FALSE</EndToEndCrcRequired>
  <Id>f7eced2d-9080-4722-b866-e8c21271bef9</Id>
  <MaxVersionsToKeep>1000</MaxVersionsToKeep>
  <Name>policy1</Name>
  <RebuildPriority>LOW</RebuildPriority>
  <Versioning>NONE</Versioning>
</Data>
```

CREATE AMAZON S3 DATA REPLICATION RULE

Description

Create an Amazon S3 data replication rule for a data policy. Each Amazon S3 replication rule targets a specified AWS S3 instance (or a cloud provider instance that exposes an AWS S3 API) remote to the local BlackPearl gateway.

You cannot specify the same AWS S3 instance multiple times in different replication rules applied to the same data policy. You can reference the same AWS S3 instance across different data policies.

You must create the data policy and register the target AWS S3 instance before creating the replication rule. See [Create Data Policy on page 326](#) and [Register Amazon S3 Target on page 440](#).

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/s3_data_replication_rule/?data_policy_id={string}&target_id={string}&type=PERMANENT [&initial_data_placement=STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE] [&max_blob_part_size_in_bytes={64-bit integer}] [&replicate_deletes=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy name, UUID, or other unique attribute.	yes
target_id	Amazon S3 instance name, UUID, or other unique attribute.	yes
type	The type of replication rule to create. Value: PERMANENT Note: Replication rules can be modified to have a type of RETIRED , but cannot be created as RETIRED .	yes
initial_data_placement	The storage class for any blobs transferred to the Amazon S3 instance. Values: <ul style="list-style-type: none"> • Standard - Provides high availability and performance for frequently accessed data. • Reduced Redundancy - Used for cheaper but less reliable storage. Not recommended for most scenarios. • Standard IA - (default) - Provides fast access to less frequently accessed data. • Glacier - Provides secure, long-term archive for rarely accessed data. • Deep Archive - Provides low-cost, durable, and secure long-term storage for large amounts of data that do not require quick retrieval. 	no
max_blob_part_size_in_bytes	Specifies the maximum blob part size used when creating bulk PUT jobs. The maximum blob part size is 1 TB. Larger blob part sizes make public cloud workflows simpler, but may make it more difficult or impossible to reliably transmit blobs. Less reliable network connections to the public cloud require smaller blob part sizes. Values: Min: 100MB, Max: 1TB, Default: 1GB	no

Parameter	Description	Required
replicate_deletes	Whether objects deleted from buckets are also deleted from the replication target. Values: TRUE (default) — Any delete received locally always replicates on the Azure target. If the local BlackPearl gateway cannot communicate with the target, the delete fails. FALSE — Any deletes received locally do not replicate to the target.	no

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <InitialDataPlacement>
    STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE
  </InitialDataPlacement>
  <MaxBlobPartSizeInBytes>
    {64-bit integer}
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Amazon S3 data replication rule.
InitialData Placement	The storage class for any blobs transferred to the Amazon S3 instance. Values: Standard, Reduced Redundancy, Standard IA, Glacier, Deep Archive . See initial_data_placement on page 334 for definitions.
Max Blob Size In Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB

Parameter	Description
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE, FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the target Amazon S3 instance.
Type	The type of replication rule. Values: PERMANENT

Example

Sample Request

This request creates a permanent data replication rule for the data policy named “financedatapolicy” for the Amazon S3 instance with the target ID “AWS-S3target1”.

```
POST http[s]://blackpearl-hostname/_rest_/s3_data_replication_rule/?data_policy_id=financedatapolicy &target_id=AWS-S3target1&type=PERMANENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <DataPolicyId>
    5d6fc2b5-169f-4863-8d7f-14e93dec01ec
  </DataPolicyId>
  <Id>dcba2d02-4f2c-4c9a-9b72-9c92fb9da36f</Id>
  <InitialDataPlacement>STANDARD_IA</InitialDataPlacement>
  <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
  <ReplicateDeletes>>true</ReplicateDeletes>
  <State>NORMAL</State>
  <TargetId>a0d900bc-60d3-45ec-b6de-023d61a517c0</TargetId>
  <Type>PERMANENT</Type>
</Data>
```

CREATE AZURE DATA REPLICATION RULE

Description

Create an Azure data replication rule for a data policy. An Azure data replication rule targets a specified Microsoft Azure cloud platform.

You cannot specify the same Azure target multiple times in different replication rules applied to the same data policy. You can reference the same Azure target across different data policies.

You must create the data policy and register the Azure target before creating the replication rule. See [Create Data Policy on page 326](#) and [Register DS3 Target on page 531](#).

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/azure_data_replication_rule/?data_policy_id={string} &target_id={string}&type=PERMANENT [&max_blob_part_size_in_bytes={64-bit integer}][&replicate_deletes=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy name, UUID, or other unique attribute.	yes
target_id	Azure target name, UUID, or other unique attribute.	yes
type	The type of replication rule to create. Value: PERMANENT Note: Replication rules can be modified to have a type of RETIRED , but cannot be created as RETIRED .	yes
max_blob_part_size_in_bytes	Specifies the maximum blob part size used when creating bulk PUT jobs. The maximum blob part size is 1 TB. Larger blob part sizes make public cloud workflows simpler, but may make it more difficult or impossible to reliably transmit blobs. Less reliable network connections to the public cloud require smaller blob part sizes. Values: Min: 100MB, Max: 1TB, Default: 1GB	no

Parameter	Description	Required
replicate_deletes	Whether objects deleted from buckets are also deleted from the replication target. Values: TRUE (default) — Any delete received locally always replicates on the Azure target. If the local BlackPearl gateway cannot communicate with one or more targets, the delete fails. FALSE — Any deletes received locally do not replicate to the target.	no

Responses

Response Elements

```

<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <MaxBlobPartSizeInBytes>
    {64-bit integer}
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Azure data replication rule.
Max Blob Size In Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE

Parameter	Description
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Azure target.
Type	The type of replication rule. Values: PERMANENT

Example

Sample Request

This request creates a permanent Azure data replication rule for the data policy named “datapolicy1” for the Azure target with the name “azuretarget1”.

```
POST http://blackpearl-hostname/_rest_/azure_data_replication_rule/?data_policy_id=datapolicy1&target_id=azuretarget1&type=PERMANENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPolicyId>
    5d6fc2b5-169f-4863-8d7f-
  </DataPolicyId>
  <Id>dcba2d02-4f2c-4c9a-9b72-9c92fb9da36f</Id>
  <MaxBlobPartSizeInBytes>
    b1c814cc-71e4-55fb-c7da-142c52b644b1
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
  <State>NORMAL</State>
  <TargetId>a0d900bc-60d3-45ec-b6de-023d61a517c0</TargetId>
  <Type>PERMANENT</Type>
</Data>
```

CREATE DS3 DATA REPLICATION RULE

Description

Create a DS3 data replication rule for a data policy. Each DS3 replication rule targets a specified BlackPearl target.

You cannot specify the same BlackPearl target multiple times in different replication rules applied to the same data policy. You can reference the same BlackPearl target across different data policies.

You must create the data policy and register the BlackPearl target before creating the replication rule. See [Create Data Policy on page 326](#) and [Register DS3 Target on page 531](#).

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/ds3_data_replication_rule/?data_policy_id={string}&target_id={string}&type=PERMANENT[&target_data_policy={string}][&replicate_deletes=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy name, UUID, or other unique attribute.	yes
target_id	BlackPearl target name, UUID, or other unique attribute.	yes
type	The type of replication rule to create. Value: PERMANENT Note: Replication rules can be modified to have a type of RETIRED , but cannot be created as RETIRED .	yes
replicate_deletes	Whether objects deleted from buckets are also deleted from the replication target. Values: TRUE (default) — Any delete received locally always replicates on the Azure target. If the local BlackPearl gateway cannot communicate with one or more targets, the delete fails. FALSE — Any deletes received locally do not replicate to the target.	no

Parameter	Description	Required
target_data_policy	The BlackPearl target data policy name, UUID, or other unique attribute.	no

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetDataPolicy>{string}</TargetDataPolicy>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the DS3 data replication rule.
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Value: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetDataPolicy	The UUID for the data policy on the BlackPearl target.
TargetId	The UUID for the BlackPearl target.
Type	The type of replication rule. Values: PERMANENT

Example

Sample Request

This request creates a permanent data replication rule for the data policy named “ds3policy1” for the BlackPearl target with the name “ds3target1” using the default data policy for the target.

```
POST http://blackpearl-hostname/_rest_/ds3_data_replication_rule/?data_policy_id=ds3policy1&target_id=ds3target1&type=PERMANENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<DataPolicyId>
```

```
    ale39fc5-a752-4740-b9f0-4ae5c3b97e81
```

```
</DataPolicyId>
```

```
<Id>2b44efc8-02f9-48b0-bd4d-5e8033333e18</Id>
```

```
<ReplicateDeletes>TRUE</ReplicateDeletes>
```

```
<State>NORMAL</State>
```

```
<TargetDataPolicy>
```

```
    3a24ffb7-15f7-33c1-fd3d-6d812513f10
```

```
</TargetDataPolicy>
```

```
<TargetId>sfqc4721-6370-2122-949e-92515e7a320f</TargetId>
```

```
<Type>PERMANENT</Type>
```

```
</Data>
```

DELETE DATA PERSISTENCE RULE

Description

Delete the specified data persistence rule from a data policy.

Note: You cannot delete a data persistence rule if it is the last permanent data persistence rule for a data policy that does not require a rebuild due to degradation.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/data_persistence_rule/{data_persistence_rule UUID or other unique attribute}/
```

To determine the UUID for a data persistence rule, see [Get Data Persistence Rules](#) on page 350.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the data persistence rule with the UUID fd1691f8-e8c5-43e9-aef7-4b8c4b21a0b5.

```
DELETE http[s]://blackpearl-hostname/_rest_/data_persistence_rule/fd1691f8-e8c5-43e9-aef7-4b8c4b21a0b5/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE DATA POLICY

Description

Delete the specified data policy.

Note: You cannot delete a data policy if a bucket is using it.

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/data_policy/{data_policy UUID, name, or other unique attribute}/
```

To determine the UUID for a data policy, see [Get Data Policies](#) on page 353.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the data policy with the name “policy1”.

```
DELETE http[s]://blackpearl-hostname/_rest_/data_policy/policy1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AMAZON S3 DATA REPLICATION RULE

Description

Delete the specified Amazon S3 data replication rule from a data policy.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/s3_data_replication_rule/{data_persistence_rule UUID or other unique attribute}/
```

To determine the UUID for an Amazon S3 data replication rule, see [Get Amazon S3 Data Replication Rules](#) on page 364.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Amazon S3 data replication rule with the UUID 2b44efc8-02f9-48b0-bd4d-5e8033333e18.

```
DELETE http[s]://blackpearl-hostname/_rest_/s3_data_replication_rule/2b44efc8-02f9-48b0-bd4d-5e8033333e18 HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AZURE DATA REPLICATION RULE

Description

Delete the specified Azure data replication rule from a data policy.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/azure_data_replication_rule/{data
persistence rule UUID or other unique attribute}/
```

To determine the UUID for an Azure data replication rule, see [Get Azure Data Replication Rules](#) on page 370.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Azure data replication rule with the UUID 2b44efc8-02f9-48b0-bd4d-5e8033333e18.

```
DELETE http[s]://blackpearl-hostname/_rest_/azure_data_replication_rule/2b44efc8-
02f9-48b0-bd4d-5e8033333e18/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE DS3 DATA REPLICATION RULE

Description

Delete the specified DS3 data replication rule from a data policy.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/ds3_data_replication_rule/{data
persistence rule UUID or other unique attribute}/
```

To determine the UUID for a DS3 data replication rule, see [Get DS3 Data Replication Rules](#) on page 375.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the DS3 data replication rule with the UUID 2b44efc8-02f9-48b0-bd4d-5e8033333e18.

```
DELETE http[s]://blackpearl-hostname/_rest_/ds3_data_replication_rule/2b44efc8-02f9-
48b0-bd4d-5e8033333e18/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET DATA PERSISTENCE RULE

Description

Get information about the specified data persistence rule.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_persistence_rule/{data_persistence_rule
UUID or other unique attribute}/
```

To determine the UUID for a data persistence rule, see [Get Data Persistence Rules on page 350](#).

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <IsolationLevel>
    STANDARD|BUCKET_ISOLATED
  </IsolationLevel>
  <MinimumDaysToRetain>{32-bit integer}</MinimumDaysToRetain>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <Type>PERMANENT|TEMPORARY|RETIRED</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the persistence rule.
IsolationLevel	The level of physical isolation required for the data retention. Values: STANDARD , BUCKET_ISOLATED See isolation_level on page 324 for descriptions.
MinimumDaysTo Retain	The minimum number of days the data should be retained based on a TEMPORARY persistence rule.

Parameter	Description
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
StorageDomainId	The UUID for the storage domain.
Type	The type of persistence rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is placed in the specified storage domain initially and maintained there permanently. • RETIRED — A copy of already-written data is maintained, but the rule is not applied to new data. • TEMPORARY — A copy of the data is placed in the specified storage domain initially and maintained there at least until the specified retention period expires.

Example

Sample Request

This request gets information about the data persistence rule with the UUID f300563a-80c1-4d30-93f4-946928989712.

```
GET http://blackpearl-hostname/_rest_/data_persistence_rule/f300563a-80c1-4d30-93f4-946928989712/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <DataPolicyId>
    955ed961-eea1-4e36-a88c-4b066366ec78
  </DataPolicyId>
  <Id>f300563a-80c1-4d30-93f4-946928989712</Id>
  <IsolationLevel>STANDARD</IsolationLevel>
  <MinimumDaysToRetain/>
  <State>NORMAL</State>
  <StorageDomainId>
    eedfd905-42cb-4460-9963-5fba10625707
  </StorageDomainId>
  <Type>PERMANENT</Type>
</Data>
```

GET DATA PERSISTENCE RULES

Description

Get information about all data persistence rules. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_persistence_rule/[?data_policy_id=
{string}][&isolation_level=STANDARD|BUCKET_ISOLATED][&last_page][&page_length=
{32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
[&state=NORMAL|INCLUSION_IN_PROGRESS][&storage_domain_id={string}]
[&type=PERMANENT|TEMPORARY|RETIRED]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no

Parameter	Description	Required
isolation_level	The level of physical isolation required for the data retention. Values: STANDARD , BUCKET_ISOLATED See isolation_level on page 324 for descriptions.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of data persistence rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first data persistence rule to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
state	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.	no
storage_domain_id	Storage domain UUID or other unique attribute.	no
type	The type of persistence rule. Values: PERMANENT , RETIRED , TEMPORARY . See Type on page 349 for descriptions.	yes

Responses

Response Elements

```
<Data>
  <DataPersistenceRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <IsolationLevel>STANDARD|BUCKET_ISOLATED</IsolationLevel>
    <MinimumDaysToRetain>{32-bit integer}</MinimumDaysToRetain>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <StorageDomainId>{string}</StorageDomainId>
    <Type>PERMANENT|TEMPORARY|RETIRED</Type>
  </DataPersistenceRule>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPersistenceRule	The container for information about one data persistence rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the persistence rule.
IsolationLevel	The level of physical isolation required for the data retention. Values: STANDARD , BUCKET_ISOLATED See isolation_level on page 324 for descriptions.
MinimumDaysToRetain	The minimum number of days the data should be retained based on a TEMPORARY persistence rule.
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
StorageDomainId	The UUID for the storage domain.

Parameter	Description
Type	The type of persistence rule. Values: PERMANENT , TEMPORARY , RETIRED . See Type on page 349 for descriptions.

Example

Sample Request

This request gets information about all data persistence rules on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/data_persistence_rule/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPersistenceRule>
    <DataPolicyId>
      b1b60034-046d-4006-8fb0-dc73188d1d66
    </DataPolicyId>
    <Id>b67587bb-d7a9-4f7a-85e1-f7010760053a</Id>
    <IsolationLevel>STANDARD</IsolationLevel>
    <MinimumDaysToRetain/>
    <State>NORMAL</State>
    <StorageDomainId>
      b843e63a-e718-4350-a8e7-56600b91547a
    </StorageDomainId>
    <Type>PERMANENT</Type>
  </DataPersistenceRule>
  ...
</Data>
```

GET DATA POLICIES

Description

Get information about all data policies. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_policy/[?always_force_put_job_
creation=TRUE|FALSE][&always_minimize_spanning_across_media=TRUE|FALSE][&checksum_
type=CRC_32|CRC_32C|MD5|SHA_256|SHA_512][&end_to_end_crc_required=TRUE|FALSE][&last_
page][&name={string}][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
always_force_put_job_creation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE, FALSE	no
always_minimize_spanning_across_media	Whether all PUT jobs created using this data policy are configured to minimize spanning across tape media. Values: TRUE, FALSE . See always_minimize_spanning_across_media on page 327.	no
checksum_type	The type of checksum used to verify data integrity for any operations involving this data policy and the type of checksum required for end-to-end CRC, if specified. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512	no
end_to_end_crc_required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE	no
last_page	If included, only the last page of results is returned.	no
name 1	The name for the data policy.	no
page_length	The maximum number of data policies to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first data policy to list. Default: 0.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
page_start_marker	<p>The UUID or other unique attribute for the item just before the first item to list.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```

<Data>
  <DataPolicy>
    <AlwaysForcePutJobCreation>
      TRUE | FALSE
    </AlwaysForcePutJobCreation>
    <AlwaysMinimizeSpanningAcrossMedia>
      TRUE | FALSE
    </AlwaysMinimizeSpanningAcrossMedia>
    <BlobbingEnabled>TRUE</BlobbingEnabled>
    <ChecksumType>
      CRC_32 | CRC_32C | MD5 | SHA_256 | SHA_512
    </ChecksumType>
    <CreationDate>YYYY-MM-DDThh:mm:ss.xxxZ</CreationDate>
    <DefaultBlobSize>{64-bit integer}</DefaultBlobSize>
    <DefaultGetJobPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </DefaultGetJobPriority>
    <DefaultPutJobPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </DefaultPutJobPriority>
    <DefaultVerifyAfterWrite>
      TRUE | FALSE
    </DefaultVerifyAfterWrite>
    <DefaultVerifyJobPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </DefaultVerifyJobPriority>
    <EndToEndCrcRequired>TRUE | FALSE</EndToEndCrcRequired>
    <Id>{string}</Id>
    <MaxVersionsToKeep>{32-bit integer}</MaxVersionsToKeep>
    <Name>{string}</Name>
  </DataPolicy>
</Data>

```

```

    <RebuildPriority>
      CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
    </RebuildPriority>
    <Versioning>NONE|KEEP_LAST</Versioning>
  </DataPolicy>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicy	The container for information about one data policy.
AlwaysForcePutJobCreation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE, FALSE
AlwaysMinimizeSpanningAcross Media	Whether all PUT jobs created for this data policy are created to minimize spanning across media. Values: TRUE, FALSE . See always_minimize_spanning_across_media on page 327.
BlobbingEnabled	Whether or not blobbing is enabled.
ChecksumType	Type of checksum used to verify data integrity for any operations involving this data policy. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512
CreationDate	The date and time the data policy was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DefaultBlobSize	The maximum blob size.
DefaultGetJob Priority	The default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultPutJob Priority	The default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND

Parameter	Description
DefaultVerifyAfterWrite	Whether data is verified by default after it is written. Values: TRUE, FALSE
DefaultVerifyJob Priority	The default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
EndToEndCrc Required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE
Id	The UUID for the data policy.
MaxVersionsTo Keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS .
Name	The name of the data policy.
RebuildPriority	The rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Versioning	The mode of versioning used by the data policy. Values: NONE, KEEP_LATEST, KEEP_MULTIPLE_VERSIONS see versioning on page 330 .

Example

Sample Request

This request gets information about all data policies on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/data_policy/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<DataPolicy>
```

```
<AlwaysForcePutJobCreation>FALSE</AlwaysForcePutJobCreation>
```

```
<AlwaysMinimizeSpanningAcrossMedia>
```

```
FALSE
```

```
</AlwaysMinimizeSpanningAcrossMedia>
```

```
<BlobbingEnabled>TRUE</BlobbingEnabled>
```

```
<ChecksumType>MD5</ChecksumType>
```

```

    <CreationDate>2015-07-29 16:26:12.768</CreationDate>
    <DefaultBlobSize/>
    <DefaultGetJobPriority>HIGH</DefaultGetJobPriority>
    <DefaultPutJobPriority>NORMAL</DefaultPutJobPriority>
    <DefaultVerifyJobPriority>LOW</DefaultVerifyJobPriority>
    <EndToEndCrcRequired>FALSE</EndToEndCrcRequired>
    <Id>43d40cce-bb94-4b73-a504-8811f37d8012</Id>
    <MaxVersionsToKeep>1000</MaxVersionsToKeep>
    <Name>policy1</Name>
    <RebuildPriority>LOW</RebuildPriority>
    <Versioning>NONE</Versioning>
  </DataPolicy>
  ...
</Data>

```

GET DATA POLICY

Description

Get information about the specified data policy.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_policy/{data policy UUID, name, or other
unique attribute}/
```

To determine the UUID for a data policy, see [Get Data Policies on page 353](#).

Responses

Response Elements

```

<Data>
  <AlwaysForcePutJobCreation>
    TRUE | FALSE
  </AlwaysForcePutJobCreation>
  <AlwaysMinimizeSpanningAcrossMedia>
    TRUE | FALSE
  </AlwaysMinimizeSpanningAcrossMedia>
  <BlobbingEnabled>TRUE</BlobbingEnabled>
  <ChecksumType>
    CRC_32 | CRC_32C | MD5 | SHA_256 | SHA_512
  </ChecksumType>

```

```

<CreationDate>YYYY-MM-DDThh:mm:ss.xxxZ</CreationDate>
<DefaultBlobSize>{64-bit integer}</DefaultBlobSize>
<DefaultGetJobPriority>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultGetJobPriority>
<DefaultPutJobPriority>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultPutJobPriority>
<DefaultVerifyJobPriority>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultVerifyJobPriority>
<DefaultVerifyAfterWrite>TRUE|FALSE</DefaultVerifyAfterWrite>
<EndToEndCrcRequired>TRUE|FALSE</EndToEndCrcRequired>
<Id>{string}</Id>
<MaxVersionsToKeep>{32-bit integer}</MaxVersionsToKeep>
<Name>{string}</Name>
<RebuildPriority>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</RebuildPriority>
<Versioning>NONE|KEEP_LAST</Versioning>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AlwaysForcePutJobCreation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE, FALSE
AlwaysMinimizeSpanningAcross Media	Whether all PUT jobs created for this data policy are created to minimize spanning across media. Values: TRUE, FALSE . See always_minimize_spanning_across_media on page 327.
BlobbingEnabled	Whether or not blobbing is enabled.
ChecksumType	Type of checksum used to verify data integrity for any operations involving this data policy. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512

Parameter	Description
CreationDate	The date and time the data policy was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DefaultBlobSize	The maximum blob size.
DefaultGetJob Priority	The default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultPutJob Priority	The default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultVerifyAfterWrite	Whether data is verified by default after it is written. Values: TRUE, FALSE
DefaultVerifyJob Priority	The default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
EndToEndCrc Required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE
Id	The UUID for the data policy.
MaxVersionsTo Keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS .
Name	The name of the data policy.
RebuildPriority	The rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Versioning	The mode of versioning used by the data policy. Values: NONE, KEEP_LATEST, KEEP_MULTIPLE_VERSIONS see versioning on page 330 .

Example

Sample Request

This request gets information about the data policy with the name “policy1”.

```
GET http://blackpearl-hostname/_rest_/data_policy/policy1/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AlwaysForcePutJobCreation>FALSE</AlwaysForcePutJobCreation>
  <AlwaysMinimizeSpanningAcrossMedia>
    FALSE
  </AlwaysMinimizeSpanningAcrossMedia>
  <BlobbingEnabled>TRUE</BlobbingEnabled>
  <ChecksumType>MD5</ChecksumType>
  <CreationDate>2015-07-29 16:26:12.852</CreationDate>
  <DefaultBlobSize/>
  <DefaultGetJobPriority>HIGH</DefaultGetJobPriority>
  <DefaultPutJobPriority>NORMAL</DefaultPutJobPriority>
  <DefaultVerifyAfterWrite>TRUE</DefaultVerifyAfterWrite>
  <DefaultVerifyJobPriority>LOW</DefaultVerifyJobPriority>
  <EndToEndCrcRequired>FALSE</EndToEndCrcRequired>
  <Id>9f7418e5-67e6-47f7-8653-dec602c66eeb</Id>
  <MaxVersionsToKeep>1000</MaxVersionsToKeep>
  <Name>policy1</Name>
  <RebuildPriority>LOW</RebuildPriority>
  <Versioning>NONE</Versioning>
</Data>
```

GET AMAZON S3 DATA REPLICATION RULE

Description

Get information about the specified data replication rule.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_data_replication_rule/{data replication rule UUID or other unique attribute}/
```

To determine the UUID for an Amazon S3 data replication rule, see [Get Amazon S3 Data Replication Rules on page 364](#).

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <InitialDataPlacement>
    STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE
  </InitialDataPlacement>
  <MaxBlobPartSizeInBytes>
    {64-bit integer}
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT|RETIRED</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Amazon S3 data replication rule.
InitialDataPlacement	The storage class for any blobs transferred to the Amazon S3 instance. Values: Standard, Reduced Redundancy, Standard IA, Glacier, Deep Archive . See initial_data_placement on page 334 for definitions.
Max Blob Size In Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE, FALSE

Parameter	Description
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the target Amazon S3 instance.
Type	The type of replication rule. Values: PERMANENT

Example

Sample Request

This request gets information about the Amazon S3 data replication rule with the UUID 28b7a84f-347b-4937-8c1d-0b697a6f04de.

```
GET http://blackpearl-hostname/_rest_/s3_data_replication_rule/28b7a84f-347b-4937-8c1d-0b697a6f04de/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPolicyId>
    1f65b24e-6a55-4c32-ba0f-e02b82e59b88
  </DataPolicyId>
  <Id>28b7a84f-347b-4937-8c1d-0b697a6f04de</Id>
  <InitialDataPlacement>STANDARD</InitialDataPlacement>
  <MaxBlobPartSizeInBytes>
    b1c814cc-71e4-55fb-c7da-142c52b644b1
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
  <State>NORMAL</State>
  <TargetId>1c81d05d-48d9-4c5e-9035-b9f5351cf311</TargetId>
  <Type>PERMANENT</Type>
</Data>
```

GET AMAZON S3 DATA REPLICATION RULES

Description

Get information about all Amazon S3 replication rules. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_data_replication_rule/[?data_policy_id={string}][&initial_data_placement=STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE][&last_page] [&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&replicate_deletes=TRUE|FALSE][&state=NORMAL][&target_id={string}][&type=PERMANENT|RETIRED]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
initial_data_placement	The storage class for any blobs transferred to the Amazon S3 instance. Values: Values: Standard, Reduced Redundancy, Standard IA, Glacier, Deep Archive . See initial_data_placement on page 334 for definitions.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of Amazon S3 replication rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Amazon S3 replication rule to list. Default: 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
replicate_deletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE, FALSE	no
state	The state of the replication rule. Values: NORMAL — The Amazon S3 replication rule is in a normal, included state.	no
target_id	The Amazon S3 target UUID or other unique attribute.	no
type	The type of Azure replication rule. Values: PERMANENT, RETIRED . See Type on page 396 for descriptions.	no

Responses

Response Elements

```

<Data>
  <S3DataReplicationRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <InitialDataPlacement>
      STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE
    </InitialDataPlacement>
    <MaxBlobPartSizeInBytes>{string}</MaxBlobPartSizeInBytes>
    <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <TargetId>{string}</TargetId>
    <Type>PERMANENT</Type>
  </S3DataReplicationRule>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3ReplicationRule	The container for information about one Amazon S3 replication rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Amazon S3 replication rule.
InitialDataPlacement	The storage class for any blobs transferred to the Amazon S3 instance. Values: Standard , Reduced Redundancy , Standard IA , Glacier , Deep Archive . See initial_data_placement on page 334 for definitions.
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Amazon S3 target.
Type	The type of Amazon S3 replication rule. Values: PERMANENT , RETIRED . See Type on page 396 for descriptions.

Example

Sample Request

This request gets information about all Amazon S3 data replication rules on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/s3_data_replication_rule/HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <S3DataReplicationRule>
    <DataPolicyId>
      d8945332-11f2-47d0-8ca8-dafe204d2d1e
    </DataPolicyId>
    <Id>8ac0c6fd-de37-4936-8862-caa0f1844735</Id>
    <InitialDataPlacement>STANDARD_IA</InitialDataPlacement>
    <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
    <ReplicateDeletes>TRUE</ReplicateDeletes>
    <State>NORMAL</State>
    <TargetId>1dad5f1e-d55b-415a-a8ab-9bc387e1eb33</TargetId>
    <Type>PERMANENT</Type>
  </S3DataReplicationRule>
  <S3DataReplicationRule>
    <DataPolicyId>
      9f7418e5-67e6-47f7-8653-dec602c66eeb
    </DataPolicyId>
    <Id>1c81d05d-48d9-4c5e-9035-b9f5351cf311</Id>
    <InitialDataPlacement>STANDARD_IA</InitialDataPlacement>
    <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
    <State>NORMAL</State>
    <TargetId>d86f4876-46d9-432c-843c-a6dd12355e7e</TargetId>
    <Type>PERMANENT</Type>
  </S3DataReplicationRule>
</Data>
```

GET AZURE DATA REPLICATION RULE

Description

Get information about the specified Azure data replication rule.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_data_replication_rule/{data replication rule UUID or other unique attribute}/
```

To determine the UUID for an Azure data replication rule, see [Get Azure Data Replication Rules](#) on page 370.

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <MaxBlobPartSizeInBytes>
    {64-bit integer}
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT|RETIRED</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Azure data replication rule.
Max Blob Size In Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE

Parameter	Description
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Azure target.
Type	The type of replication rule. Values: PERMANENT

Example

Sample Request

This request gets information about the Azure data replication rule with the UUID 28b7a84f-347b-4937-8c1d-0b697a6f04de.

```
GET http://blackpearl-hostname/_rest_/azure_data_replication_rule/28b7a84f-347b-4937-8c1d-0b697a6f04de/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <DataPolicyId>
    bd42cb6b-875e-4d02-8109-8ee349453111
  </DataPolicyId>
  <Id>86536861-9067-404b-8472-bcadf5a9fe1b</Id>
  <MaxBlobPartSizeInBytes>
    1073741824</MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
  <State>NORMAL</State>
  <TargetId>46438485-c87e-4ab9-94ec-00fa12571869</TargetId>
  <Type>PERMANENT</Type>
</Data>
```

GET AZURE DATA REPLICATION RULES

Description

Get information about all Azure replication rules. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_data_replication_rule/[?data_policy_id={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&replicate_deletes=TRUE|FALSE][&state=NORMAL][&target_id={string}][&type=PERMANENT|RETIRED]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of Azure replication rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Azure replication rule to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
replicate_deletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE	no

Parameter	Description	Required
state	The state of the replication rule. Values: NORMAL — The Azure replication rule is in a normal, included state.	no
target_id	The Azure target UUID or other unique attribute.	no
type	The type of Azure replication rule. Values: PERMANENT , RETIRED . See Type on page 396 for descriptions.	no

Responses

Response Elements

```
<Data>
  <AzureDataReplicationRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <MaxBlobPartSizeInBytes>{string}</MaxBlobPartSizeInBytes>
    <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <TargetId>{string}</TargetId>
    <Type>PERMANENT</Type>
  </AzureDataReplicationRule>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AzureReplication Rule	The container for information about one Azure replication rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Azure replication rule.
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE

Parameter	Description
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Azure target.
Type	The type of replication rule. Values: PERMANENT, RETIRED . See Type on page 396 for descriptions.

Example

Sample Request

This request gets information about all Azure data replication rules on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/azure_data_replication_rule/HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AzureDataReplicationRule>
    <DataPolicyId>
      d8945332-11f2-47d0-8ca8-dafe204d2d1e
    </DataPolicyId>
    <Id>8ac0c6fd-de37-4936-8862-caa0f1844735</Id>
    <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
    <ReplicateDeletes>TRUE</ReplicateDeletes>
    <State>NORMAL</State>
    <TargetId>1dad5f1e-d55b-415a-a8ab-9bc387e1eb33</TargetId>
    <Type>PERMANENT</Type>
  </AzureDataReplicationRule>
  <AzureDataReplicationRule>
    <DataPolicyId>
      9f7418e5-67e6-47f7-8653-dec602c66eeb
    </DataPolicyId>
    <Id>485634bd-d9fc-478e-8bbf-3e1cf65a94b6</Id>
    <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
    <ReplicateDeletes>TRUE</ReplicateDeletes>
    <State>NORMAL</State>
```



```

    <TargetId>d86f4876-46d9-432c-843c-a6dd12355e7e</TargetId>
    <Type>PERMANENT</Type>
  </AzureDataReplicationRule>
</Data>

```

GET DS3 DATA REPLICATION RULE

Description

Get information about the specified DS3 replication rule.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_data_replication_rule/{data replication rule UUID or other unique attribute}/
```

To determine the UUID for a DS3 data replication rule, see [Get DS3 Data Replication Rules on page 375](#).

Responses

Response Elements

```

<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetDataPolicy>{string}</TargetDataPolicy>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
DataPolicyId	The UUID for the data policy.
Id	The UUID for the DS3 data replication rule.
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetDataPolicy	The UUID for the data policy on the BlackPearl target.
TargetId	The UUID for the BlackPearl target.
Type	The type of replication rule. Values: PERMANENT

Example

Sample Request

This request gets information about the DS3 replication rule with the UUID 28b7a84f-347b-4937-8c1d-0b697a6f04de.

```
GET http://blackpearl-hostname/_rest_/ds3_data_replication_rule/28b7a84f-347b-4937-8c1d-0b697a6f04de/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPolicyId>
    9dc1146c-44c8-46ec-8e9c-4d2507badfc2
  </DataPolicyId>
  <Id>d6083a44-dd10-4b03-9115-5ea2150f8bd1</Id>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
```

```

<State>NORMAL</State>
<TargetDataPolicy/>
<TargetId>b76837a2-4a13-40cb-a964-59967b787a73</TargetId>
<Type>PERMANENT</Type>
</Data>

```

GET DS3 DATA REPLICATION RULES

Description

Get information about all DS3 replication rules. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/ds3_data_replication_rule/[?data_policy_id=
{string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&replicate_deletes=TRUE|FALSE] [&state=NORMAL]
[&target_id={string}][&type=PERMANENT|RETIRED]

```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of DS3 replication rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first DS3 replication rule to list. Default: 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
replicate_deletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE, FALSE	no
state	The state of the replication rule. Values: NORMAL — The Azure replication rule is in a normal, included state.	no
target_id	The DS3 target UUID or other unique attribute.	no
type	The type of DS3 replication rule. Values: PERMANENT, RETIRED . See Type on page 396 for descriptions.	no

Responses

Response Elements

```

<Data>
  <Ds3DataReplicationRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <TargetDataPolicy>{string}</TargetDataPolicy/>
    <TargetId>{string}</TargetId>
    <Type>PERMANENT</Type>
  </Ds3DataReplicationRule>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Ds3Replication Rule	The container for information about one DS3 replication rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Azure replication rule.
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetDataPolicy	The UUID for the data policy on the BlackPearl target.
TargetId	The UUID for the BlackPearl target.
Type	The type of replication rule. Values: PERMANENT , RETIRED . See Type on page 396 for descriptions.

Example

Sample Request

This request gets information about all DS3 data replication rules on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/ds3_data_replication_rule/HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Ds3DataReplicationRule>
    <DataPolicyId>
      d8945332-11f2-47d0-8ca8-dafe204d2d1e
    </DataPolicyId>
    <Id>8ac0c6fd-de37-4936-8862-caa0f1844735</Id>
```

```

    <ReplicateDeletes>TRUE</ReplicateDeletes>
    <State>NORMAL</State>
    <TargetDataPolicy/>
    <TargetId>1dad5f1e-d55b-415a-a8ab-9bc387e1eb33</TargetId>
    <Type>PERMANENT</Type>
  </Ds3DataReplicationRule>
<Ds3DataReplicationRule>
  <DataPolicyId>
    9f7418e5-67e6-47f7-8653-dec602c66eeb
  </DataPolicyId>
  <Id>485634bd-d9fc-478e-8bbf-3e1cf65a94b6</Id>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
  <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
  <State>NORMAL</State>
  <TargetDataPolicy/>
  <TargetId>d86f4876-46d9-432c-843c-a6dd12355e7e</TargetId>
  <Type>PERMANENT</Type>
</Ds3DataReplicationRule>
</Data>

```

MODIFY DATA PERSISTENCE RULE

Description

Modify a data persistence rule for a data policy.

Notes:

- If you modify a retired persistence rule to temporary, and you already applied the data policy to a bucket, the BlackPearl gateway does not necessarily copy the data in the bucket to the specified storage domain even if there is existing data within the rule's retention period.
- If the modify command does not include an optional request parameter, the persistence rules retains the previous setting.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/data_persistence_rule/ {data persistence rule
UUID or other unique}/[?isolation_level=STANDARD|BUCKET_ISOLATED][&minimum_days_to_
retain={32-bit integer}][&type=PERMANENT|TEMPORARY|RETIRED]

```

Request Parameters

Parameter	Description	Required
isolation_level	<p>The level of physical isolation required for the data retention. The STANDARD isolation level provides the best capacity utilization and overall performance.</p> <p>Note: The isolation level can always be reduced to STANDARD, but can never be increased to BUCKET_ISOLATED once the data policy is in use by at least one bucket.</p> <p>Note: Values: STANDARD, BUCKET_ISOLATED. See isolation_level on page 324 for descriptions.</p>	no
minimum_days_to_retain	<p>The minimum number of days the data should be retained based on a TEMPORARY persistence rule.</p> <p>Note: The <code>minimum_days_to_retain</code> for a persistence rule targeting a storage domain with a NEARLINE pool (Deep Storage) storage domain member must be 90 days or greater.</p>	required if type is being changed to TEMPORARY
type	<p>The type of persistence rule.</p> <p>Notes:</p> <ul style="list-style-type: none"> The TEMPORARY value is not allowed for a persistence rule targeting a storage domain with a tape partition member. A data persistence rule with type PERMANENT cannot be modified to type RETIRED or TEMPORARY if it is the last PERMANENT persistence rule for an in use storage domain. <p>Values: PERMANENT, RETIRED, TEMPORARY. See Type on page 349 for descriptions.</p>	no

Responses

Response Elements

```

<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <IsolationLevel>STANDARD|BUCKET_ISOLATED</IsolationLevel>
  <MinimumDaysToRetain>{32-bit integer}</MinimumDaysToRetain>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <Type>PERMANENT|TEMPORARY|RETIRED</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the persistence rule.
IsolationLevel	The level of physical isolation required for the data retention. Values: STANDARD , BUCKET_ISOLATED . See isolation_level on page 324 for descriptions.
MinimumDaysTo Retain	The minimum number of days the data should be retained based on a TEMPORARY persistence rule.
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
StorageDomainId	The UUID for the storage domain.
Type	The type of persistence rule. Values: PERMANENT , TEMPORARY , RETIRED . See Type on page 349 for descriptions.

Example

Sample Request

This request modifies a persistence rule to use standard isolation.

```
PUT http[s]://blackpearl-hostname/_rest_/data_persistence_rule/d8716fda-c2e5-44c6-8bea-713bb147e5e0/?isolation_level=STANDARD HTTP/1.1
```


Sample Response

```
HTTP/1.1 200 OK
<Data>
  <DataPolicyId>
    044854c9-7557-4136-a374-dddf7c29e370
  </DataPolicyId>
  <Id>d8716fda-c2e5-44c6-8bea-713bb147e5e0</Id>
  <IsolationLevel>STANDARD</IsolationLevel>
  <MinimumDaysToRetain/>
  <State>NORMAL</State>
  <StorageDomainId>
    8ed43978-846a-44c9-8e14-f34179e33a33
  </StorageDomainId>
  <Type>PERMANENT</Type>
</Data>
```

MODIFY DATA POLICY

Description

Modify a data policy.

Notes:

- If the data policy is already in use, you cannot modify some parameters. If the command requests prohibited modifications, the BlackPearl gateway returns an error message.
- If the modify command does not include an optional request parameter, the data policy retains the previous setting.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/data_policy/{data_policy UUID, name, or
other unique attribute}/[?always_force_put_job_creation=TRUE|FALSE] [&always_
minimize_spanning_across_media=TRUE|FALSE] [&blobbing_enabled=TRUE|FALSE] [&checksum
type=CRC_32|CRC_32C|MD5|SHA_256|SHA_512] [&default_blob_size={64-bit integer}]
[&default_get_job_priority=URGENT|HIGH|NORMAL|LOW] [&default_put_job_
priority=URGENT|HIGH|NORMAL|LOW] [&default_verify_after_write=TRUE|FALSE] [&default_
verify_job_priority=URGENT|HIGH|NORMAL|LOW] [&end_to_end_crc_required=TRUE|FALSE]
[&max_versions_to_keep={32-bit integer}] [&name={string}] [&rebuild_
priority=URGENT|HIGH|NORMAL|LOW] [&versioning=NONE|KEEP_LATEST|KEEP_MULTIPLE_
VERSIONS]
```

Request Parameters

Parameter	Description	Required
always_force_put_job_creation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE , FALSE (default)	no
always_minimize_spanning_across_media	Whether all PUT jobs created using this data policy are configured to minimize spanning across tape media. Minimizing spanning across media is useful when you plan to eject tapes and it is likely that you will retrieve all objects from the PUT job in a single GET job. With this setting, you may only need to import one ejected tape, rather than many tapes, when servicing a GET job. Notes: <ul style="list-style-type: none"> • This setting only applies to tape partitions. • For jobs less than or equal to 1 TB in size, there is an absolute guarantee that the data from the job will never span across multiple tapes. For larger jobs, spanning is minimized, but not completely prevented. You can further reduce the probability of spanning across media by using the CAPACITY write optimization for the storage domains. • Minimizing spanning across media may reduce capacity utilization and performance. Values: TRUE , FALSE	no

Parameter	Description	Required
blobbing_enabled	Whether or not to enable blobbing. If enabled, an object can be broken up into multiple blobs (binary large objects). If disabled, an object must always have exactly one blob. Blobbing must be enabled to handle objects larger than 1 TB, to use multi-part upload, or to break up an object into multiple blobs. Disabling blobbing guarantees that an object never spans multiple media (for example, tapes), since a blob cannot span multiple media. Values: TRUE, FALSE	no
checksum_type	Specifies the type of checksum used to verify data integrity for data in any bucket using this data policy, and the type of checksum required for end-to-end CRC, if specified. Note: If the data policy is already in use by a bucket, the <code>checksum_type</code> cannot be changed. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512 Notes: <ul style="list-style-type: none"> • CRC_32, MD5, and SHA-512 perform the best for their corresponding cryptographic strengths on the BlackPearl gateway. • Using SHA-256 or SHA-512 will reduce single stream performance and may reduce throughput capabilities of the BlackPearl gateway. 	no
default_blob_size	The maximum blob size. Blob sizes less than 5 MB are strongly discouraged. Blob sizes less than 50 MB are discouraged. The maximum blob size is 1 TB.	no
default_get_job_priority	Specifies the default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW	no
default_put_job_priority	Specifies the default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW	no

Parameter	Description	Required
default_verify_after_write	Whether data is verified by default after it is written. Values: TRUE, FALSE	no
default_verify_job_priority	Specifies the default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Jobs with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Verify jobs can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
end_to_end_crc_required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE	no
max_versions_to_keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS .	no
name	The name for the data policy.	no
rebuild_priority	Specifies the rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: URGENT, HIGH, NORMAL, LOW	no

Parameter	Description	Required
versioning	<p>The mode of versioning used by the data policy.</p> <p>Values:</p> <ul style="list-style-type: none"> • NONE (default) — Only one version of an object may exist at any time. Attempts to write another object of the same name fail. • KEEP_LATEST — Only one version of the data is available at a time. When a new version of an object is written, the old version is retained until the new version is fully written in compliance with the data policy, and then the old version is deleted. • KEEP_MULTIPLE_VERSIONS — Multiple versions of the object, up to the number specified by <code>max_versions_to_keep</code> on page 329 are retained. <p>Notes:</p> <ul style="list-style-type: none"> • KEEP_LATEST versioning cannot be used for a data policy which uses a storage domain with <code>ltfs_file_naming=OBJECT_NAME</code> (see <code>ltfs_file_naming</code> on page 548). • KEEP_LATEST requires that the PUT job for the earlier version of the object complete before the PUT of the latest version of the object with the same name in order for the PUT to succeed. <p>CAUTION If the PUT of the earlier version is not complete before the PUT of the latest version, the BlackPearl gateway believes the latest version to be the same object as the earlier version and rejects it, so only the earlier version is retained.</p>	no

Responses

Response Elements

```

<Data>
  <AlwaysForcePutJobCreation>
    TRUE | FALSE
  </AlwaysForcePutJobCreation>
  <AlwaysMinimizeSpanningAcrossMedia>
    TRUE | FALSE
  </AlwaysMinimizeSpanningAcrossMedia>
  <BlobbingEnabled>TRUE | FALSE</BlobbingEnabled>
  <ChecksumType>
    CRC_32 | CRC_32C | MD5 | SHA_256 | SHA_512
  </ChecksumType>
  <CreationDate>YYYY-MM-DDThh:mm:ss.xxxZ</CreationDate>
  <DefaultBlobSize>{64-bit integer}</DefaultBlobSize>

```

```

<DefaultGetJobPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultGetJobPriority>
<DefaultPutJobPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultPutJobPriority>
<DefaultVerifyAfterWrite>TRUE|FALSE</DefaultVerifyAfterWrite>
<DefaultVerifyJobPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</DefaultVerifyJobPriority>
<EndToEndCrcRequired>TRUE|FALSE</EndToEndCrcRequired>
<Id>{string}</Id>
<MaxVersionsToKeep>{32-bit integer}</MaxVersionsToKeep>
<Name>{string}</Name>
<RebuildPriority>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</RebuildPriority>
<Versioning>NONE|KEEP_LAST</Versioning>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AlwaysForcePutJobCreation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE, FALSE
AlwaysMinimizeSpanningAcross Media	Whether all PUT jobs created for this data policy are created to minimize spanning across media. Values: TRUE, FALSE . See always_minimize_spanning_across_media on page 327.
BlobbingEnabled	Whether or not blobbing is enabled.
ChecksumType	Type of checksum used to verify data integrity for any operations involving this bucket unless the operation specifies a different type of checksum. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512

Parameter	Description
CreationDate	The date and time the data policy was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DefaultBlobSize	The maximum blob size.
DefaultGetJob Priority	The default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultPutJob Priority	The default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultVerifyAfterWrite	Whether data is verified by default after it is written. Values: TRUE, FALSE
DefaultVerifyJob Priority	The default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
EndToEndCrc Required	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE
Id	The UUID for the data policy.
MaxVersionsTo Keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS .
Name	The name of the data policy.
RebuildPriority	The rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Versioning	The mode of versioning used by the data policy. Values: NONE, KEEP_LATEST, KEEP_MULTIPLE_VERSIONS see versioning on page 330.

Example

Sample Request

This request renames the data policy “policy1” to “newname”.

```
POST http://blackpearl-hostname/_rest_/data_policy/policy1/?name=newname HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AlwaysForcePutJobCreation>FALSE</AlwaysForcePutJobCreation>
  <AlwaysMinimizeSpanningAcrossMedia>
    FALSE
  </AlwaysMinimizeSpanningAcrossMedia>
  <BlobbingEnabled>TRUE</BlobbingEnabled>
  <ChecksumType>MD5</ChecksumType>
  <CreationDate>2015-07-29 16:26:12.305</CreationDate>
  <DefaultBlobSize>332</DefaultBlobSize>
  <DefaultGetJobPriority>HIGH</DefaultGetJobPriority>
  <DefaultPutJobPriority>NORMAL</DefaultPutJobPriority>
  <DefaultVerifyJobPriority>LOW</DefaultVerifyJobPriority>
  <EndToEndCrcRequired>FALSE</EndToEndCrcRequired>
  <Id>4492e1db-35d7-416c-875d-8e1654b5b1ee</Id>
  <MaxVersionsToKeep>1000</MaxVersionsToKeep>
  <Name>newname</Name>
  <RebuildPriority>LOW</RebuildPriority>
  <Versioning>NONE</Versioning>
</Data>
```

MODIFY AMAZON S3 DATA REPLICATION RULE

Description

Modify an Amazon S3 data replication rule for a data policy.

Note: If the modify command does not include an optional request parameter, the replication rule retains the previous setting.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/s3_data_replication_rule/{data replication
rule UUID or other unique attribute}/[?initial_data_placement=STANDARD|REDUCED_
REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE][&max_blob_part_size_in_bytes={64-bit
integer}][replicate_deletes=TRUE|FALSE][&type=PERMANENT|RETIRED]
```


Request Parameters

Parameter	Description	Required
initial_data_placement	The storage class for any blobs transferred to the Amazon S3 instance. Values: <ul style="list-style-type: none"> • Standard - Provides high availability and performance for frequently accessed data. • Reduced Redundancy - Used for cheaper but less reliable storage. Not recommended for most scenarios. • Standard IA - (default) - Provides fast access to less frequently accessed data. • Glacier - Provides secure, long-term archive for rarely accessed data. 	no
max_blob_part_size_in_bytes	Specifies the maximum blob part size used when creating bulk PUT jobs. The maximum blob part size is 1 TB. Larger blob part sizes make public cloud workflows simpler, but may make it more difficult or impossible to reliably transmit blobs. Less reliable network connections to the public cloud require smaller blob part sizes. Values: Min: 100MB, Max: 1TB, Default: 1GB	no
replicate_deletes	Whether objects deleted from buckets are also deleted from the replication target. Values: <p>TRUE (default) — Any delete received locally always replicates on the Azure target. If the local BlackPearl gateway cannot communicate with one or more targets, the delete fails.</p> <p>FALSE— Any deletes received locally do not replicate to the target.</p>	no
type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data. 	no

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
```

```

<InitialDataPlacement>
  STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_GLACIER
</InitialDataPlacement>
<MaxBlobPartSizeInBytes>
  {64-bit integer}
</MaxBlobPartSizeInBytes>
<ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
<State>NORMAL|INCLUSION_IN_PROGRESS</State>
<TargetId>{string}</TargetId>
<Type>PERMANENT|RETIRED</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the Amazon S3 replication rule.
InitialDataPlacement	The storage class for any blobs transferred to the Amazon S3 instance. Values: Standard , Reduced Redundancy , Standard IA , Glacier , Deep Archive . See initial_data_placement on page 334 for definitions.
MaxBlobSizeIn Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Amazon S3 target.
Type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data.

Example

Sample Request

This request retires the Amazon S3 replication rule with the UUID 4735bc7b-011b-49d8-84f9-b4bbac95d128.

```
POST http://blackpearl-hostname/_rest_/s3_data_replication_rule/4735bc7b-011b-49d8-84f9-b4bbac95d128/?type=RETIRED HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPolicyId>
    a3fbb966-0fe7-4202-bb58-029d6b4896ae
  </DataPolicyId>
  <Id>4735bc7b-011b-49d8-84f9-b4bbac95d128</Id>
  <InitialDataPlacement>STANDARD_IA</InitialDataPlacement>
  <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
  <State>NORMAL</State>
  <TargetId>5aa8dab6-4d27-4c01-a4eb-b003fade6012</TargetId>
  <Type>RETIRED</Type>
</Data>
```

MODIFY AZURE DATA REPLICATION RULE

Description

Modify an Azure data replication rule for a data policy.

Note: If the modify command does not include an optional request parameter, the replication rules retains the previous setting.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/azure_data_replication_rule/{data replication rule UUID or other unique attribute}/[?max_blob_part_size_in_bytes={64-bit integer}][replicate_deletes=TRUE|FALSE] [&type=PERMANENT|RETIRED]
```

Request Parameters

Parameter	Description	Required
max_blob_part_size_in_bytes	Specifies the maximum blob part size used when creating bulk PUT jobs. The maximum blob part size is 1 TB. Larger blob part sizes make public cloud workflows simpler, but may make it more difficult or impossible to reliably transmit blobs. Less reliable network connections to the public cloud require smaller blob part sizes. Values: Min: 100MB, Max: 1TB, Default: 1GB	no
replicate_deletes	Whether objects deleted from buckets are also deleted from the replication target. Values: TRUE (default) — Any delete received locally always replicates on the Azure target. If the local BlackPearl gateway cannot communicate with one or more targets, the delete fails. FALSE — Any deletes received locally do not replicate to the target.	no
type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data. 	no

Responses

Response Elements

```

<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <MaxBlobPartSizeInBytes>
    {64-bit integer}
  </MaxBlobPartSizeInBytes>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetDataPolicy>{string}</TargetDataPolicy>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT|RETIRED</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
MaxBlobSizeIn Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB
Id	The UUID for the DS3 replication rule.
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetDataPolicy	The UUID for the data policy on the BlackPearl target.
TargetId	The UUID for the BlackPearl target.
Type	The type of replication rule. Values: Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data.

Example

Sample Request

This request retires the Azure replication rule with the UUID 34dde4ff-8603-4c44-b0e9-39150f9cc3ad.

```
POST http://blackpearl-hostname/_rest_/azure_data_replication_rule/34dde4ff-8603-4c44-b0e9-39150f9cc3ad/?type=RETIRED HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <DataPolicyId>
    88832b42-731e-4a82-be8d-3d787117ca7d
  </DataPolicyId>
  <MaxBlobPartSizeInBytes>
    48321fc3-821f-5b73-fc3a-4a877241fb6a
  </MaxBlobPartSizeInBytes>
  <Id>34dde4ff-8603-4c44-b0e9-39150f9cc3ad</Id>
  <ReplicateDeletes>TRUE</ReplicateDeletes>
  <State>NORMAL</State>
  <TargetDataPolicy/>
  <TargetId>e4858769-57e0-4f34-a2d0-3f7ad57aa80f</TargetId>
  <Type>RETIRED</Type>
</Data>
```

MODIFY DS3 DATA REPLICATION RULE

Description

Modify a DS3 data replication rule for a data policy.

Note: If the modify command does not include an optional request parameter, the replication rules retains the previous setting.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/ds3_data_replication_rule/{data replication
rule UUID or other unique attribute}/[?replicate_deletes=TRUE|FALSE] [&target_data_
policy={text}] [&type=PERMANENT|RETIRED]
```

Request Parameters

Parameter	Description	Required
replicate_deletes	Whether objects deleted from buckets are also deleted from the replication target. Values: TRUE (default) — Any delete received locally always replicates on the Azure target. If the local BlackPearl gateway cannot communicate with one or more targets, the delete fails. FALSE — Any deletes received locally do not replicate to the target.	no
target_data_policy	The BlackPearl target data policy name, UUID, or other unique attribute.	no
type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data. 	no

Responses

Response Elements

```
<Data>
  <DataPolicyId>{string}</DataPolicyId>
  <Id>{string}</Id>
  <ReplicateDeletes>TRUE|FALSE</ReplicateDeletes>
  <State>NORMAL|INCLUSION_IN_PROGRESS</State>
  <TargetDataPolicy>{string}</TargetDataPolicy>
  <TargetId>{string}</TargetId>
  <Type>PERMANENT|RETIRED</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the DS3 replication rule.

Parameter	Description
ReplicateDeletes	Whether objects deleted from local buckets are also deleted from the replication target. Values: TRUE , FALSE
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetDataPolicy	The UUID for the data policy on the BlackPearl target.
TargetId	The UUID for the BlackPearl target.
Type	The type of replication rule. Values: Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data.

Example

Sample Request

This request retires the DS3 replication rule with the UUID 34dde4ff-8603-4c44-b0e9-39150f9cc3ad.

```
POST http://blackpearl-hostname/_rest_/ds3_data_replication_rule/34dde4ff-8603-4c44-b0e9-39150f9cc3ad/?type=RETIRED HTTP/1.1
```


Sample Response

HTTP/1.1 200 OK

<Data>

<DataPolicyId>

88832b42-731e-4a82-be8d-3d787117ca7d

</DataPolicyId>

<Id>34dde4ff-8603-4c44-b0e9-39150f9cc3ad</Id>

<ReplicateDeletes>TRUE</ReplicateDeletes>

<State>NORMAL</State>

<TargetDataPolicy/>

<TargetId>e4858769-57e0-4f34-a2d0-3f7ad57aa80f</TargetId>

<Type>RETIRED</Type>

</Data>

CHAPTER 12 - REPLICATION TARGET OPERATIONS

This chapter describes replication rules and data policies that define how data is replicated to a target. A replication target is a remote BlackPearl gateway or cloud service. The currently supported replication targets are Microsoft Azure targets, DS3 (BlackPearl) targets, and Amazon S3 targets.

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GENERAL REPLICATION TARGET COMMANDS

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--	-----

FORCE TARGET ENVIRONMENT REFRESH

Description

Forces the target environment to refresh (verify access and connectivity for each target) immediately, updating each replication target's state.

Note: The target environment is updated automatically based on a polling interval, so manual refreshes are not typically necessary.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/target_environment/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request refreshes the target environment.

```
PUT http://blackpearl-hostname/_rest_/target_environment/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

AMAZON S3 REPLICATION TARGET COMMANDS

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CREATE AMAZON S3 TARGET BUCKET NAME

Description

Defines a custom bucket name mapping between the BlackPearl bucket and an Amazon S3 target bucket.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/s3_target_bucket_name/?bucket_id={string}&name={string}&target_id={string}
```

Request Parameters

Parameter	Description	Required
bucket_id	The BlackPearl bucket UUID, name, or other unique attribute.	yes
name	The name for the new bucket in the Amazon S3 target.	yes
target_id	The Amazon S3 target UUID, name, or other unique attribute.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
Id	The UUID for the bucket mapping.
Name	The name of the Amazon S3 bucket.
TargetId	The UUID for the Amazon S3 replication target.

Example

Sample Request

This request maps the BlackPearl bucket named `bucket1` to an Amazon S3 bucket named `bucketname`.

```
POST http[s]://blackpearl-hostname/_rest_/s3_target_bucket_name/?bucket_id=
bucket1&name=bucketname&target_id=26bbc55a-417a-49a9-90f5-dbc3920cb0fc HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
<BucketId>b9c3e3ec-a316-4532-bf82-d5e07141df64</BucketId>
```

```
<Id>67c60982-aa75-4378-ad48-187f66a3917c</Id>
```

```
<Name>bucketname</Name>
```

```
<TargetId>26bbc55a-417a-49a9-90f5-dbc3920cb0fc</TargetId>
```

```
</Data>
```

CREATE AMAZON S3 TARGET READ PREFERENCE

Description

Create an Amazon S3 target read preference for a particular bucket, overriding the default defined in the Amazon S3 target configuration.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/s3_target_read_preference/?bucket_id=
{string}&read_preference=LAST_RESORT|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_
NON_EJECTABLE_TAPE|MINIMUM_LATENCY|NEVER&target_id={string}
```

Request Parameters

Parameter	Description	Required
<code>bucket_id</code>	Bucket UUID, name, or other unique attribute.	yes

Parameter	Description	Required
read_preference	<p>When it is preferable to read from the Amazon S3 target rather than the replication source.</p> <p>Values:</p> <ul style="list-style-type: none"> • LAST_RESORT — The target is only used to service a read request if it cannot be serviced locally. This setting should be used in most circumstances. • AFTER_ONLINE_POOL — If data is not available locally on cache or online pool, the target is used to read the data if possible. • AFTER_NEARLINE_POOL — If data is not available locally on cache, online pool, or nearline pool, the target is used to read the data if possible. • AFTER_NON_EJECTABLE_TAPE — If data is not available locally on cache, online pool, nearline pool, or non-ejectable tape, the target is used to read the data if possible. • MINIMUM_LATENCY — The source BlackPearl gateway dynamically determines the read preference based on whether the requested data resides in a pool or on tape. If, for example, the source has the data on tape, but the target has the data on pool, the source uses the target to service the request. If however, the source and target both have the data on pool, the source is used to service the request. Use this when <ol style="list-style-type: none"> 1. the cost of the network link to the target is very inexpensive, 2. minimizing latency of servicing GET and VERIFY jobs is critical, and 3. the network throughput to the target is much higher than the tape backend throughput (for example, if the network link to the target is 1 Gb/s, but the tape backend consists of 8 LTO-7 drives, it is very possible that it is faster to service requests locally, even though we must go to tape, since the pipe to the tape backend far exceeds that to the target). • NEVER — The target is never allowed to service a read request. You may want to use this setting when the cost of the network link to the target is very high, or if for data integrity verification purposes, the administrator wants to ensure that all GET and VERIFY requests are serviced locally. 	yes
target_id	The Amazon S3 target UUID, name, or other unique attribute.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <ReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </ReadPreference>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
BucketId	The container for the response.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 403.
TargetId	The UUID for the replication target.

Example

Sample Request

This request overrides the read preference for the Amazon S3 target with the UUID 26bbc55a-417a-49a9-90f5-dbc3920cb0fc to set the read preference for 'bucket1' to **MINIMUM_LATENCY**.

```
POST http[s]://blackpearl-hostname/_rest_/s3_target_read_preference/?bucket_id=
bucket1 &read_preference=MINIMUM_LATENCY&target_id=26bbc55a-417a-49a9-90f5-
dbc3920cb0fc HTTP/1.1
```


Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <BucketId>502e2d43-fe83-491e-985c-5f4d8d2108c3</BucketId>
  <Id>4b90e88b-63ec-4784-96a3-8408e74ad3ec</Id>
  <ReadPreference>MINIMUM_LATENCY</ReadPreference>
  <TargetId>26bbc55a-417a-49a9-90f5-dbc3920cb0fc</TargetId>
</Data>
```

DELETE AMAZON S3 TARGET

Description

Delete the specified Amazon S3 replication target.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/s3_target/{Amazon S3 target UUID, name, or
other unique attribute}/
```

To determine the UUID for an Amazon S3 target, see [Get Amazon S3 Targets on page 422](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Amazon S3 replication target with the name 's3target'.

```
DELETE http[s]://blackpearl-hostname/_rest_/s3_target/s3target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AMAZON S3 TARGET BUCKET NAME

Description

Deletes a custom bucket name mapping between a BlackPearl bucket and an Amazon S3 target bucket.

Note: The bucket on the Amazon S3 target is not deleted.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/s3_target_bucket_name/{Amazon S3 bucket name, UUID, or other unique identifier or attribute}/
```

To determine the UUID for an Amazon S3 bucket, see [Get Amazon S3 Target Bucket Names on page 413](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the custom mapping of a bucket on a BlackPearl source to an Amazon S3 bucket.

```
DELETE http[s]://blackpearl-hostname/_rest_/s3_target_bucket_name/s3bucket/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AMAZON S3 TARGET FAILURE

Description

Delete the specified Amazon S3 replication target failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/s3_target_failure/{Amazon S3 target failure UUID or other unique attribute}/
```

To determine the UUID for an Amazon S3 target failure, see [Get Amazon S3 Target Failures on page 416](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Amazon S3 target failure with the UUID df53ea38-a582-4c04-99ef-e5d8071fe188.

```
DELETE http[s]://blackpearl-hostname/_rest_/s3_target_failure/df53ea38-a582-4c04-99ef-e5d8071fe188/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AMAZON S3 TARGET READ PREFERENCE

Description

Delete the specified Amazon S3 replication target read preference.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/s3_target_read_preference/{Amazon S3 target read preference UUID}/
```

To determine the UUID for an Amazon S3 target read preference, see [Get Amazon S3 Target Read Preferences](#) on page 420.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Amazon S3 target read preference with the UUID d196873b-e79a-4824-8f03-99fd98883ab8.

```
DELETE http[s]://blackpearl-hostname/_rest_/s3_target_read_preference/d196873b-e79a-4824-8f03-99fd98883ab8/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET AMAZON S3 TARGET

Description

Get information about the specified Amazon S3 target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target/{Amazon S3 target instance UUID, name, or other unique attribute}/
```

To determine the UUID for an Amazon S3 target, see [Get Amazon S3 Targets on page 422](#).

Responses

Response Elements

```
<Data>
  <AccessKey>{string}</AccessKey>
  <AutoVerifyFrequencyInDays>
    {integer}
  </AutoVerifyFrequencyInDays>
  <CloudBucketPrefix>{string}</CloudBucketPrefix>
  <CloudBucketSuffix>{string}</CloudBucketSuffix>
  <DataPathEndPoint>{string}</DataPathEndPoint>
```

```

<DefaultReadPreference>
  MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
  |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
</DefaultReadPreference>
<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastFullyVerified>
<Name>{string}</Name>
<NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
<OfflineDataStagingWindowInTb>
  {integer}
</OfflineDataStagingWindowInTb>
<ProxyDomain>{string}</ProxyDomain>
<ProxyHost>{string}</ProxyHost>
<ProxyPassword>{string}</ProxyPassword>
<ProxyPort>{64-bit integer}</ProxyPort>
<ProxyUsername>{string}</ProxyUsername>
<Quiesced>NO|PENDING|YES</Quiesced>
<Region>
  US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|
  EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|
  AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|
  CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1
</Region>
<SecretKey>{string}</SecretKey>
<StagedDataExpirationInDays>
  {integer}
</StagedDataExpirationInDays>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessKey	The S3 Access Key of the user for the Amazon S3 account.

Parameter	Description
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Amazon S3 target bucket prefix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Amazon S3 target bucket suffix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Amazon S3 target instance.
LastFullyVerified	The date and time data on the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Name	The name for the Amazon S3 target.

Parameter	Description
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL, AWS_S3
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.
ProxyDomain	The domain name for the proxy server.
ProxyHost	The host name or IP address for the proxy server to which the BlackPearl gateway connects.
ProxyPassword	The password used when connecting through the proxy server.
ProxyPort	The proxy server port through which the BlackPearl gateway connects.
ProxyUsername	The username used when connecting through the proxy server.
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO, PENDING, YES
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1
SecretKey	The secret key associated with the AccessKey.
StagedDataExpirationInDays	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.
State	The state of the Amazon S3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request gets information about the Amazon S3 target with the name 'S3Target'.

```
GET http[s]://blackpearl-hostname/_rest_/s3_target/S3Target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AccessKey>Nf36Pd1f</AccessKey>
  <AutoVerifyFrequencyInDays/>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DataPathEndPoint/>
  <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>8fa1e732-0b9d-4f5e-b502-a6107d28f300</Id>
  <LastFullyVerified/>
  <Name>S3Target</Name>
  <NamingMode>BLACK_PEARL</NamingMode>
  <OfflineDataStagingWindowInTb>1</OfflineDataStagingWindowInTb>
  <ProxyDomain/>
  <ProxyHost/>
  <ProxyPassword/>
  <ProxyPort/>
  <ProxyUsername/>
  <Quiesced>NO</Quiesced>
  <Region>US_WEST_2</Region>
  <SecretKey>Z42st5R</SecretKey>
  <StagedDataExpirationInDays>30</StagedDataExpirationInDays>
  <State>ONLINE</State>
</Data>
```

GET AMAZON S3 TARGET BUCKET NAMES

Description

Gets all Amazon S3 bucket name mappings between the local BlackPearl buckets and their Amazon S3 target buckets.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_targetbucket_name/[?bucket_id={string}]
[&last_page] [&name={string}] [&page_length={32-bit integer}] [&page_offset=
{32-bit integer}] [&page_start_marker={string}] [&target_id={string}]
```

Responses

Request Parameters

Parameter	Description	Required
bucket_id	Bucket UUID, name, or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
name	The name of the bucket on the Amazon S3 target.	no
page_length	The maximum number of Amazon S3 target buckets to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Amazon S3 target bucket to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	Amazon S3 target UUID, name, or other unique attribute.	no

Responses

Response Elements

```
<Data>
  <S3TargetBucketName>
    <BucketId>{string}</BucketId>
    <Id>{string}</Id>
    <Name>{string}</Name>
```

```

    <TargetId>{string}</TargetId>
  </S3TargetBucketName>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3TargetBucket Name	The name of the bucket on the Amazon S3 target,
BucketId	The UUID for the bucket.
Id	The UUID for the bucket mapping.
Name	The name of the Amazon S3 bucket.
TargetId	The UUID for the Amazon S3 replication target.

Example

Sample Request

This request gets a list of all buckets on the Amazon S3 target.

```
GET http://blackpearl-hostname/_rest_/s3_target_bucket_name/ HTTP/1.1
```

Sample Response

```

<Data>
  <S3TargetBucketName>
    <BucketId>220e62e0-c869-479c-a729-7f02316d6317</BucketId>
    <Id>9c3c3732-fab1-4a9c-88da-1fb6c0a6ff3f</Id>
    <Name>custombucketname</Name>
    <TargetId>c14ce94a-9c99-4f19-8373-5000b72313f0</TargetId>
  </S3TargetBucketName>
  <S3TargetBucketName>
    <BucketId>220e62e0-c869-479c-a729-7f02316d6317</BucketId>
    <Id>b7524215-aaac-4286-9098-12a3066567b9</Id>
    <Name>custombucketname</Name>
    <TargetId>d5c4ce07-dba9-4b2c-89c1-605d2dd6a4c0</TargetId>
  </S3TargetBucketName>
</Data>

```

GET AMAZON S3 TARGET FAILURES

Description

Get information about all Amazon S3 target failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target_failure/[?error_message={string}]
[&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&target_id={string}][&type=IMPORT_FAILED|IMPORT_
INCOMPLETE|NOT_ONLINE|READ_FAILED|READ_INITIATE_FAILED|VERIFY_COMPLETE|VERIFY_
FAILED|WRITE_FAILED|WRITE_INITIATE_FAILED]
```

Request Parameters

Parameter	Description	Required
error_message	The text of the error message.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of Amazon S3 target failures to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Amazon S3 target failure to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Parameter	Description	Required
target_id	Amazon S3 target UUID, name, or other unique attribute. To determine the UUID for an Amazon S3 target, see Get Amazon S3 Targets on page 422 .	no
type	The type of error message. Values: Values: IMPORT_FAILED, IMPORT_INCOMPLETE, NOT_ONLINE, READ_FAILED, READ_INITIATE_FAILED, VERIFY_COMPLETE, VERIFY_FAILED, WRITE_FAILED, WRITE_INITIATE_FAILED	no

Responses

Response Elements

```

<Data>
  <S3TargetFailure>
    <Date>YYYY-MM-DDThh:mm:ss.xxxZ</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <TargetId>{string}</TargetId>
    <Type>
      IMPORT_FAILED|IMPORT_INCOMPLETE|NOT_ONLINE|READ_FAILED|
      READ_INITIATE_FAILED|VERIFY_COMPLETE|VERIFY_FAILED|
      WRITE_FAILED|WRITE_INITIATE_FAILED
    </Type>
  </S3TargetFailure>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3TargetFailure	The container for information about one Amazon S3 target failure.
Date	The date and time the error occurred in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i>
ErrorMessage	A description of the error.
Id	The UUID for the error message.

Parameter	Description
TargetId	The UUID for the Amazon S3 target that had the failure.
Type	The type of error message.

Example

Sample Request

This request gets information about all Amazon S3 target failures.

```
GET http://blackpearl-hostname/_rest_/s3_target_failure/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <S3TargetFailure>
    <Date>2016-05-17T14:18:01.000Z</Date>
    <ErrorMessage>{error text}</ErrorMessage>
    <Id>df53ea38-a582-4c04-99ef-e5d8071fe188</Id>
    <TargetId>aa584aa1-f2dd-4064-8db3-f6f07810dc89</TargetId>
    <Type>NOT_ONLINE</Type>
  </S3TargetFailure>
</Data>
```

GET AMAZON S3 TARGET READ PREFERENCE

Description

Get the specified Amazon S3 target default read preference.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target_read_preference/{Amazon S3 target read preference UUID or other unique attribute}/
```

To determine the UUID for the Amazon S3 target read preference, see [Get Amazon S3 Target Read Preferences on page 420](#).

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <ReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </ReadPreference>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
TargetId	The UUID for the replication target.

Example

Sample Request

This request gets information about the read preference for the Amazon S3 target with the 5cbf1b35-0d06-43f5-aef8-c31e6af14f17.

```
GET http://blackpearl-hostname/_rest_/s3_target_read_preference/5cbf1b35-0d06-43f5-
aef8-c31e6af14f17/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <BucketId>b0a6249d-d096-4c05-a428-548f65214fb8</BucketId>
  <Id>6e91318c-8a1a-4b1a-85b4-077c901554bb</Id>
  <ReadPreference>MINIMUM_LATENCY</ReadPreference>
  <TargetId>5cbf1b35-0d06-43f5-aef8-c31e6af14f17</TargetId>
</Data>
```

GET AMAZON S3 TARGET READ PREFERENCES

Description

Get information about the default read preference for all Amazon S3 targets. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target_read_preference/[?bucket_id=
{string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&read_preference=MINIMUM_LATENCY|AFTER_ONLINE_
POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&target_id=
{string}]
```

Request Parameters

Parameter	Description	Required
bucket_id	The bucket name, UUID, or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of Amazon S3 target read preferences to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Amazon S3 target read preferences to list. Default: 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
read_preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 403.	no
target_id	The UUID, name, or other unique attribute for the replication target.	no

Responses

Response Elements

```
<Data>
  <S3TargetReadPreference>
    <BucketId>{string}</BucketId>
    <Id>{string}</Id>
    <ReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
      |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
    </ReadPreference>
    <TargetId>{string}</TargetId>
  </S3TargetReadPreference>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3TargetRead Preference	The container for information about the read preference for one Amazon S3 target.

Parameter	Description
BucketId	The UUID for the bucket.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 403.
TargetId	The UUID for the replication target.

Example

Sample Request

This request gets information about the read preference for each Amazon S3 target registered to the source.

```
GET http://blackpearl-hostname/_rest_/s3_target_read_preference/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <S3TargetReadPreference>
    <BucketId>306e0f35-aadd-4152-90eb-7fcf42df7a15</BucketId>
    <Id>8d0aae6a-2d72-486c-9142-f0542662776f</Id>
    <ReadPreference>MINIMUM_LATENCY</ReadPreference>
    <TargetId>3e0cd533-f062-4504-8063-c59c4e478549</TargetId>
  </S3TargetReadPreference>
</Data>
```

GET AMAZON S3 TARGETS

Description

Get information about all registered Amazon S3 targets. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target/[?access_key={string}][&data_path_end_point={string}][&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&https=TRUE|FALSE][&last_page][&name={string}][&naming_mode=BLACK_PEARL|AWS_S3][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&permit_going_out_of_sync=TRUE|FALSE][&quiesced=NO|PENDING|YES][&region=US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1][&state=ONLINE|LIMITED_ACCESS|OFFLINE]
```

Request Parameters

Parameter	Description	Required
access_key	The access key of user for the Amazon S3 account.	no
data_path_end_point	The IPv4 address or DNS name for the data path of the Amazon S3 target.	no
default_read_preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no
https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE , FALSE	no
last_page	If included, only the last page of results is returned.	no
name	The name for the Amazon S3 target.	no
naming_mode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL , AWS_S3	no
page_length	The maximum number of Amazon S3 targets to list. Default: all items after <code>page_offset</code> .	no

Parameter	Description	Required
page_offset	The starting point for the first Amazon S3 target to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 442. Note: This parameter is deprecated.	no
quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO, PENDING, YES	no
region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1	no
state	The state of the Amazon S3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	no

Responses

Response Elements

```
<Data>
  <S3Target>
    <AccessKey>{string}</AccessKey>
    <AutoVerifyFrequencyInDays>
      {integer}
    </AutoVerifyFrequencyInDays>
    <CloudBucketPrefix>{string}</CloudBucketPrefix>
    <CloudBucketSuffix>{string}</CloudBucketSuffix>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
      |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
    </DefaultReadPreference>
```

```

<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified>{string}</LastFullyVerified>
<Name>{string}</Name>
<NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
<OfflineDataStagingWindowInTb>
  {64-bit integer}
</OfflineDataStagingWindowInTb>
<PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
<ProxyDomain>{string}</ProxyDomain>
<ProxyHost>{string}</ProxyHost>
<ProxyPassword>{string}</ProxyPassword>
<ProxyPort>{64-bit integer}</ProxyPort>
<ProxyUsername>{string}</ProxyUsername>
<Quiesced>NO|PENDING|YES</Quiesced>
<Region>
  US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|
  EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|
  AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|
  CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1
</Region>
<SecretKey>{string}</SecretKey>
<StagedDataExpirationInDays>
  {64-bit integer}
</StagedDataExpirationInDays>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</S3Target>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessKey	The S3 Access Key of the user for the Amazon S3 account.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.

Parameter	Description
CloudBucketPrefix	The Amazon S3 target bucket prefix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Amazon S3 target bucket suffix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE , FALSE .
Id	The UUID for the Amazon S3 target instance.
LastFullyVerified	The date and time data on the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Name	The name for the Amazon S3 target.
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL , AWS_S3
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.

Parameter	Description
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 442. Note: This parameter is deprecated.
ProxyDomain	The domain name for the proxy server.
ProxyHost	The host name or IP address for the proxy server which the BlackPearl gateway connects.
ProxyPassword	The password used when connecting through the proxy server.
ProxyPort	The proxy server port through which the BlackPearl gateway connects.
ProxyUsername	The username used when connecting through the proxy server.
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO, PENDING, YES
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1
SecretKey	The secret key associated with the AccessKey.
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.
State	The state of the Amazon S3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request gets information about all Amazon S3 targets registered to the source BlackPearl gateway.

```
GET http[s]://blackpearl-hostname/_rest_/s3_target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <S3Target>
```

```
    <AccessKey>5sLpd33z</AccessKey>
```

```
    <AutoVerifyFrequencyInDays/>
```

```
    <CloudBucketPrefix/>
```

```
    <CloudBucketSuffix/>
```

```
    <DataPathEndPoint/>
```

```
    <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
```

```
    <Https>TRUE</Https>
```

```
    <Id>7a50b0f1-f78d-49a8-bd15-898bdd02a756</Id>
```

```
    <LastFullyVerified/>
```

```
    <Name>S3Target-32c68e61-07e3-4093-a906-14796239e37d</Name>
```

```
    <NamingMode>BLACK_PEARL</NamingMode>
```

```
    <OfflineDataStagingWindowInTb>
```

```
      1
```

```
  </OfflineDataStagingWindowInTb>
```

```
    <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
```

```
    <ProxyDomain/>
```

```
    <ProxyHost/>
```

```
    <ProxyPassword/>
```

```
    <ProxyPort/>
```

```
    <ProxyUsername/>
```

```
    <Quiesced>NO</Quiesced>
```

```
    <Region>US_WEST_2</Region>
```

```
    <SecretKey>7dm2wWn</SecretKey>
```

```
    <StagedDataExpirationInDays>30</StagedDataExpirationInDays>
```

```
    <State>ONLINE</State>
```

```
  </S3Target>
```

```
</Data>
```

GET BLOBS ON AMAZON S3 TARGET

Description

Get the object pieces on the specified Amazon S3 target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target/{Amazon S3 target instance UUID,
name, or other unique attribute}?operation=GET_PHYSICAL_PLACEMENT/
```

To determine the UUID for an Amazon S3 target, see [Get Amazon S3 Targets on page 422](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform on the Amazon S3 target. For this command, the operation is Get Physical Placement .	yes

Responses

Response Elements

```
<Data>
  <Object Bucket="{string}" Id="{string}" Latest="TRUE|FALSE"
  Length="{64-bit integer}" Name="{string}"
  Offset="{64-bit integer}" VersionId="{string}"/>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Object	The container for the information about one object.
Bucket	The name of the bucket containing the object.
Id	The UUID for the object.
Latest	Whether or not the object is the latest version of the file. Values: TRUE, FALSE
Length	The length in bytes of the of object.

Parameter	Description
Name	The name of the object.
Offset	The object in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request gets a list of all blobs on the Amazon S3 target.

```
GET http://blackpearl-hostname/_rest_/s3_target/7a50b0f1-f78d-49a8-bd15-898bdd02a756/?operation=GET_PHYSICAL_PLACEMENT HTTP/1.1
```

Sample Response

```
<Data>
  <Object Bucket="default_bucket_name" Id="1c4fc33b-f997-43f8-bdb9-9bb5e748c7b8" Latest="TRUE" Length="10" Name="obj1" Offset="0" VersionId="aaaf1e07-f0b0-4454-b6f3-b58380b8a14a"/>
  <Object Bucket="default_bucket_name" Id="46d7d57d-f4ae-4406-bb1b-a850b9a22ecc" Latest="TRUE" Length="10" Name="obj2" Offset="0" VersionId="6f04d542-78cb-4778-aa64-05a0335823ad"/>
</Data>
```

IMPORT AMAZON S3 TARGET

Description

Imports a copy of the objects in the specified bucket on the specified Amazon S3 target to the local BlackPearl gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/s3_target/{unique identifier or attribute}?operation=import &cloud_bucket_name={string} [&data_policy_id={unique identifier or attribute}] [&priority={CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND}] [&user_id={unique identifier or attribute}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
cloud_bucket_name	The name or UUID of the bucket on the Amazon S3 target to transfer to the BlackPearl gateway.	yes
data_policy_id	The UUID, name, or other unique attribute for the data policy to associate with objects on the Amazon S3 target that do not already exist on the BlackPearl gateway. Note: If a bucket with the name <i>cloud_bucket_name</i> , does not already exist on the BlackPearl gateway, then <i>data_policy_id</i> and <i>user_id</i> are required.	no
priority	The priority for processing the import. The <i>priority</i> determines the resources assigned and the processing order. Imports can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
user_id	The UUID, name, or other unique attribute for the user to associate with any buckets on the Azure target that do not already exist on the BlackPearl gateway. Note: If a bucket with the name <i>cloud_bucket_name</i> , does not already exist on the BlackPearl gateway, then <i>data_policy_id</i> and <i>user_id</i> are required.	no

Responses

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This command imports the objects in the bucket named “Accounting” from the specified Amazon S3 target.

```
PUT http://blackpearl-hostname/_rest_/s3_target/dd9505ed-ca71-43c0-8715-
e3a4699244d6/?operation=IMPORT&cloudBucketName=Accounting HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MODIFY ALL AMAZON S3 TARGETS

Description

Sets all Amazon S3 targets to a quiesced (**YES**), unquiesced (**NO**), or pending quiesce (**PENDING**) state. It is not possible to change the state directly from **NO** to **YES**.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/s3_target/?quiesced=NO|PENDING
```

Request Parameters

Parameter	Description	Required
quiesced	Whether to put all the Amazon S3 targets into a temporarily inactive state (PENDING) or return all Amazon S3 targets to an active state (NO).	yes

Responses

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found
- 409: Conflict

Example

Sample Request

This request modifies the quiesced state of all Amazon S3 targets to **NO**.

```
PUT http://blackpearl-hostname/_rest_/s3_target/?quiesced=NO HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MODIFY AMAZON S3 TARGET

Description

Modify an Amazon S3 target.

Notes:

- If an optional request parameter is not included, the previous setting is retained.
- It is not possible to change the quiesced state directly from **NO** to **YES**.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/s3_target/{BlackPearl target instance UUID,
name, or other unique attribute}/
[?access_key={string}][&auto_verify_frequency_in_days={64-bit integer}][&cloud_
bucket_prefix={string}][&cloud_bucket_suffix={string}][&data_path_end_point=
{string}][&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_
POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&https=TRUE|FALSE][&name={string}]
[&naming_mode=BLACK_PEARL|AWS_S3][&offline_data_staging_window_in_tb={64-bit
integer}][&permit_going_out_of_sync=TRUE|FALSE][&proxy_domain={string}][&proxy_host=
{string}][&proxy_password={string}][&proxy_port={string}][&proxy_username={string}]
[&quiesced=NO|PENDING][&region=US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|EU_
WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_
NORTHEAST_2|SA_EAST_1|CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1][&secret_key={string}]
[&staged_data_expiration_in_days={string}]
```

To determine the UUID for an Amazon S3 target instance, see [Get Amazon S3 Targets on page 422](#).

Request Parameters

Parameter	Description	Required
access_key	The S3 Access Key of the user for the Amazon S3 account.	no
auto_verify_frequency_in_days	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.	no
cloud_bucket_prefix	The Amazon S3 target bucket prefix. The prefix must adhere to the Amazon S3 naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.	no
cloud_bucket_suffix	The Amazon S3 target bucket suffix. The suffix must adhere to the Amazon S3 naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.	no
data_path_end_point	The IPv4 address or DNS name for the data path of the AWS cloud service.	no
default_read_preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.	no
https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .	no
name	The name for the Amazon S3 target.	no

Parameter	Description	Required
naming_mode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL , AWS_S3 Note: You cannot change the <code>naming_mode</code> of a target that already has associated buckets.	no
offline_data_staging_window_in_tb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Values: TRUE , FALSE Note: This parameter is deprecated.	no
proxy_domain	The domain name for the proxy server.	no
proxy_host	The host name or IP address for the proxy server which the BlackPearl gateway connects.	no
proxy_password	The password used when connecting through the proxy server.	no
proxy_port	The proxy server port through which the BlackPearl gateway connects.	no
proxy_username	The username used when connecting through the proxy server.	no
quiesced	Request that the gateway prepare the target to go into an inactive state (PENDING) or return the target to an active state (NO). Values: NO , PENDING	no
region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1 , US_EAST_2 , US_WEST_1 , US_WEST_2 , EU_WEST_1 , EU_WEST_2 , EU_CENTRAL_1 , AP_SOUTH_1 , AP_SOUTHEAST_1 , AP_SOUTHEAST_2 , AP_NORTHEAST_1 , AP_NORTHEAST_2 , SA_EAST_1 , CN_NORTH_1 , GOV_CLOUD , CA_CENTRAL_1	no

Parameter	Description	Required
secret_key	The secret key associated with the AccessKey.	no
staged_data_expiration_in_days	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.	no

Responses

Response Elements

```

<Data>
  <AccessKey>{string}</AccessKey>
  <AutoVerifyFrequencyInDays>{string}</AutoVerifyFrequencyInDays>
  <CloudBucketPrefix>{string}</CloudBucketPrefix>
  <CloudBucketSuffix>{string}</CloudBucketSuffix>
  <DataPathEndPoint>{string}</DataPathEndPoint>
  <DefaultReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </DefaultReadPreference>
  <Https>TRUE|FALSE</Https>
  <Id>{string}</Id>
  <LastFullyVerified>{string}</LastFullyVerified>
  <Name>{string}</Name>
  <NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
  <OfflineDataStagingWindowInTb>
    {64-bit integer}
  </OfflineDataStagingWindowInTb>
  <PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
  <ProxyDomain>{string}</ProxyDomain>
  <ProxyHost>{string}</ProxyHost>
  <ProxyPassword>{string}</ProxyPassword>
  <ProxyPort>{64-bit integer}</ProxyPort>
  <ProxyUsername>{string}</ProxyUsername>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <Region>
    US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|
    EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|
    AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|
    CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1
  </Region>
  <SecretKey>{string}</SecretKey>

```



```

<StagedDataExpirationInDays>
  {64-bit integer}
</StagedDataExpirationInDays>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessKey	The S3 Access Key of the user for the Amazon S3 account.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Amazon S3 target bucket prefix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Amazon S3 target bucket suffix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.

Parameter	Description
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Amazon S3 target instance.
LastFullyVerified	The date and time data on the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Name	The name for the Amazon S3 target.
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL, AWS_S3
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 442. Note: This parameter is deprecated.
ProxyDomain	The domain name for the proxy server.
ProxyHost	The host name or IP address for the proxy server which the BlackPearl gateway connects.
ProxyPassword	The password used when connecting through the proxy server.
ProxyPort	The proxy server port through which the BlackPearl gateway connects.
ProxyUsername	The username used when connecting through the proxy server.
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO, PENDING, YES
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1

Parameter	Description
SecretKey	The secret key associated with the AccessKey.
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.
State	The state of the Amazon S3 target. Values: ONLINE , OFFLINE , LIMITED_ACCESS

Example

Sample Request

This request modifies the Amazon S3 target named 'TargetS3' to set the automatic data verify frequency to **365 days**.

```
PUT http[s]://blackpearl-hostname/_rest_/s3_
target/TargetS3/?autoVerifyFrequencyInDays=365 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AccessKey>KbC74x9s</AccessKey>
  <AutoVerifyFrequencyInDays>365</AutoVerifyFrequencyInDays>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DataPathEndPoint/>
  <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>a9a8afe0-a426-4f80-8c25-d768a6494129</Id>
  <LastFullyVerified/>
  <Name>TargetS3</Name>
  <NamingMode>BLACK_PEARL</NamingMode>
  <OfflineDataStagingWindowInTb>1</OfflineDataStagingWindowInTb>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <ProxyDomain/>
  <ProxyHost/>
  <ProxyPassword/>
  <ProxyPort/>
  <ProxyUsername/>
  <Quiesced>NO</Quiesced>
  <Region>US_WEST_2</Region>
```

```
<SecretKey>m3u8nW5/SecretKey>
<StagedDataExpirationInDays>30</StagedDataExpirationInDays>
<State>ONLINE</State>
</Data>
```

REGISTER AMAZON S3 TARGET

Description

Connect to and register the specified Amazon S3 target as a replication target for the BlackPearl gateway.

Notes:

- Only Amazon Web Services (AWS) S3 is qualified as an Amazon S3 target. Other S3 services have not been tested.
- You must include either a `data_path_endpoint` or a `region`. If you include both a Data Path End Point and a Region, the BlackPearl gateway uses the Data Path End Point and ignores the Region.
- You cannot use the same Data Path End Point or Region, and Access Key for multiple Amazon S3 targets as this could cause data conflicts.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/s3_target/?access_key={string}&name={string}&secret_key={string} [&auto_verification_frequency_in_days={32-bit integer}]
 [&cloud_bucket_prefix={string}] [&cloud_bucket_suffix={string}] [&data_path_end_point={string}]
 [&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER]
 [&https=TRUE|FALSE] [&naming_mode=BLACK_PEARL|AWS_S3] [&offline_data_staging_window_in_tb={64-bit integer}]
 [&permit_going_out_of_sync=TRUE|FALSE] [&proxy_domain={string}] [&proxy_host={string}]
 [&proxy_password={string}] [&proxy_port={string}] [&proxy_username={string}]
 [&region=US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1]
 [&secret_key={string}] [&staged_data_expiration_in_days={string}]
```

Request Parameters

Parameter	Description	Required
access_key	The S3 Access Key of the user for the Amazon S3 account.	yes
name	The name for the Amazon S3 target.	yes
secret_key	The secret key associated with the AccessKey.	yes
auto_verify_frequency_in_days	The frequency at which a full verify of the data on the target is scheduled. If null (default), no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.	no
cloud_bucket_prefix	The Amazon S3 target bucket prefix. The prefix must adhere to the Amazon S3 naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.	no
cloud_bucket_suffix	The Amazon S3 target bucket suffix. The suffix must adhere to the Amazon S3 naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.	no
data_path_end_point	The IPv4 address or DNS name for the data path of the AWS cloud service.	no
default_read_preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no

Parameter	Description	Required
https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE (default), FALSE .	no
naming_mode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL (default), AWS_S3	no
offline_data_staging_window_in_tb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Values: TRUE , FALSE (default) Note: This parameter is deprecated.	no
proxy_domain	The domain name for the proxy server.	no
proxy_host	The host name or IP address for the proxy server which the BlackPearl gateway connects.	no
proxy_password	The password used when connecting through the proxy server.	no
proxy_port	The proxy server port through which the BlackPearl gateway connects.	no
proxy_username	The username used when connecting through the proxy server.	no
region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1 , US_EAST_2 , US_WEST_1 , US_WEST_2 , EU_WEST_1 , EU_WEST_2 , EU_CENTRAL_1 , AP_SOUTH_1 , AP_SOUTHEAST_1 , AP_SOUTHEAST_2 , AP_NORTHEAST_1 , AP_NORTHEAST_2 , SA_EAST_1 , CN_NORTH_1 , GOV_CLOUD , CA_CENTRAL_1	no

Parameter	Description	Required
staged_data_expiration_in_days	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.	no

Responses

Response Elements

```

<Data>
  <AccessKey>{string}</AccessKey>
  <AutoVerifyFrequencyInDays>{string}</AutoVerifyFrequencyInDays>
  <CloudBucketPrefix>{string}</CloudBucketPrefix>
  <CloudBucketSuffix>{string}</CloudBucketSuffix>
  <DataPathEndPoint>{string}</DataPathEndPoint>
  <DefaultReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </DefaultReadPreference>
  <Https>TRUE|FALSE</Https>
  <Id>{string}</Id>
  <LastFullyVerified>{string}</LastFullyVerified>
  <Name>{string}</Name>
  <NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
  <OfflineDataStagingWindowInTb>
    {64-bit integer}
  </OfflineDataStagingWindowInTb>
  <PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
  <ProxyDomain>{string}</ProxyDomain>
  <ProxyHost>{string}</ProxyHost>
  <ProxyPassword>{string}</ProxyPassword>
  <ProxyPort>{64-bit integer}</ProxyPort>
  <ProxyUsername>{string}</ProxyUsername>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <Region>
    US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|
    EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|
    AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|
    CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1
  </Region>
  <SecretKey>{string}</SecretKey>

```

```

<StagedDataExpirationInDays>
  {64-bit integer}
</StagedDataExpirationInDays>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessKey	The S3 Access Key of the user for the Amazon S3 account.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Amazon S3 target bucket prefix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Amazon S3 target bucket suffix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.

Parameter	Description
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Amazon S3 target instance.
LastFullyVerified	The date and time data on the target was last fully verified in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i> .
Name	The name for the Amazon S3 target.
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL, AWS_S3
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 442. Note: This parameter is deprecated.
ProxyDomain	The domain name for the proxy server.
ProxyHost	The host name or IP address for the proxy server which the BlackPearl gateway connects.
ProxyPassword	The password used when connecting through the proxy server.
ProxyPort	The proxy server port through which the BlackPearl gateway connects.
ProxyUsername	The username used when connecting through the proxy server.
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO, PENDING, YES
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1

Parameter	Description
SecretKey	The secret key associated with the AccessKey.
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.
State	The state of the Amazon S3 target. Values: ONLINE , OFFLINE , LIMITED_ACCESS

Example

Sample Request

This request registers an Amazon S3 target with the data path end point 'DataPath', the S3 Access Key 'c381Y3RyYQ==', the S3 Secret Key 'd7pJBeAN', and the name 'TargetS3' as a replication target for the BlackPearl gateway.

```
POST http[s]://blackpearl-hostname/_rest_/s3_target/?admin_auth_
id=c381Y3RyYQ==&admin_secret_key=d7pJBeAN &data_path_end_
point=DataPath&name=TargetS3 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <AccessKey>c381Y3RyYQ==</AccessKey>
  <AutoVerifyFrequencyInDays/>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DataPathEndPoint>DataPath</DataPathEndPoint>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>771c3371-8276-45ce-a21c-a3bfd1ca5caa</Id>
  <LastFullyVerified/>
  <Name>TargetS3</Name>
  <NamingMode>BLACK_PEARL</NamingMode>
  <OfflineDataStagingWindowInTb>64</OfflineDataStagingWindowInTb>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <ProxyDomain/>
  <ProxyHost/>
  <ProxyPassword/>
  <ProxyPort/>
  <ProxyUsername/>
  <Quiesced>NO</Quiesced>
```

```

<Region>US_WEST_2</Region>
<SecretKey>d7pJBeAN</SecretKey>
<StagedDataExpirationInDays>30</StagedDataExpirationInDays>
<State>ONLINE</State>
</Data>

```

VERIFY AMAZON S3 TARGET

Description

Verifies connectivity to the Amazon S3 target and that the Administrator credentials are correct. If `full_details` is specified, the operation verifies that all data expected to reside on the target does in fact reside there.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/s3_target/{Amazon S3 target instance UUID,
name, or other unique attribute}/?operation=VERIFY[&full_details]
```

To determine the UUID for an Amazon S3 target instance, see [Get Amazon S3 Targets on page 422](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is verify. Value: VERIFY	yes
full_details	If included, the operation verifies that all data expected to reside on the target does in fact reside there.	no

Responses

Response Elements

```

<Data>
  <S3Target>
    <AccessKey>{string}</AccessKey>

```

```

<AutoVerifyFrequencyInDays>
  {integer}
</AutoVerifyFrequencyInDays>
<CloudBucketPrefix>{string}</CloudBucketPrefix>
<CloudBucketSuffix>{string}</CloudBucketSuffix>
<DataPathEndPoint>{string}</DataPathEndPoint>
<DefaultReadPreference>
  MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
  |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
</DefaultReadPreference>
<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified>{string}</LastFullyVerified>
<Name>{string}</Name>
<NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
<OfflineDataStagingWindowInTb>
{64-bit integer}
</OfflineDataStagingWindowInTb>
<PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
<ProxyDomain>{string}</ProxyDomain>
<ProxyHost>{string}</ProxyHost>
<ProxyPassword>{string}</ProxyPassword>
<ProxyPort>{64-bit integer}</ProxyPort>
<ProxyUsername>{string}</ProxyUsername>
<Quiesced>NO|PENDING|YES</Quiesced>
<Region>
  US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|EU_WEST_1|
  EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|AP_SOUTHEAST_1|
  AP_SOUTHEAST_2|AP_NORTHEAST_1|AP_NORTHEAST_2|SA_EAST_1|
  CN_NORTH_1|GOV_CLOUD|CA_CENTRAL_1
</Region>
<SecretKey>{string}</SecretKey>
<StagedDataExpirationInDays>
  {64-bit integer}
</StagedDataExpirationInDays>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</S3Target>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
AccessKey	The S3 Access Key of the user for the Amazon S3 account.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Amazon S3 target bucket prefix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Amazon S3 target bucket suffix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Amazon S3 must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Amazon S3, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Amazon S3 target instance.
LastFullyVerified	The date and time data on the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
Name	The name for the Amazon S3 target.
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL, AWS_S3
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 442. Note: This parameter is deprecated.
ProxyDomain	The domain name for the proxy server.
ProxyHost	The host name or IP address for the proxy server which the BlackPearl gateway connects.
ProxyPassword	The password used when connecting through the proxy server.
ProxyPort	The proxy server port through which the BlackPearl gateway connects.
ProxyUsername	The username used when connecting through the proxy server.
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: Values: NO, PENDING, YES
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1, US_EAST_2, US_WEST_1, US_WEST_2, EU_WEST_1, EU_WEST_2, EU_CENTRAL_1, AP_SOUTH_1, AP_SOUTHEAST_1, AP_SOUTHEAST_2, AP_NORTHEAST_1, AP_NORTHEAST_2, SA_EAST_1, CN_NORTH_1, GOV_CLOUD, CA_CENTRAL_1
SecretKey	The secret key associated with the AccessKey.
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire. If the BlackPearl gateway does not retrieve all of the data before the copy expires, it has to go through the process of pre-staging it again, incurring additional delays and costs.
State	The state of the Amazon S3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request confirms connectivity to the Amazon S3 target and verifies the credentials of the administrator.

```
PUT http[s]://blackpearl-hostname/_rest_/s3_target/S3Target/?operation=VERIFY
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AccessKey>83hB3Pz1</AccessKey>
  <AutoVerifyFrequencyInDays/>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DataPathEndPoint/>
  <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>02d48638-b6b9-4566-af83-8f76a934d744</Id>
  <LastFullyVerified/>
  <Name>testtp</Name>
  <NamingMode>BLACK_PEARL</NamingMode>
  <OfflineDataStagingWindowInTh>1</OfflineDataStagingWindowInTh>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <ProxyDomain/>
  <ProxyHost/>
  <ProxyPassword/>
  <ProxyPort/>
  <ProxyUsername/>
  <Quiesced>NO</Quiesced>
  <Region>US_WEST_2</Region>
  <SecretKey>PlN770a</SecretKey>
  <StagedDataExpirationInDays>30</StagedDataExpirationInDays>
  <State>ONLINE</State>
</Data>
```

AZURE REPLICATION TARGET COMMANDS

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CREATE AZURE TARGET BUCKET NAME

Description

Defines a custom bucket name mapping between a BlackPearl bucket and an Azure target blob storage container.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/azure_target_bucket_name/?bucket_id={string}&name={string}&target_id={string}
```

Request Parameters

Parameter	Description	Required
bucket_id	The BlackPearl bucket UUID, name, or other unique attribute.	yes
name	The name for the new blob storage container in Azure.	yes
target_id	The Azure target UUID, name, or other unique attribute.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
Id	The UUID for the bucket mapping.
Name	The name of the Azure blob storage container.
TargetId	The UUID for the Azure replication target.

Example

Sample Request

This request maps the BlackPearl bucket named 'bucket1' to an Azure blob storage container named 'bucketname'.

```
POST http[s]://blackpearl-hostname/_rest_/azure_target_bucket_name/?bucket_id=
bucket1&name=bucketname &target_id=26bbc55a-417a-49a9-90f5-dbc3920cb0fc HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
<BucketId>b9c3e3ec-a316-4532-bf82-d5e07141df64</BucketId>
```

```
<Id>67c60982-aa75-4378-ad48-187f66a3917c</Id>
```

```
<Name>bucketname</Name>
```

```
<TargetId>26bbc55a-417a-49a9-90f5-dbc3920cb0fc</TargetId>
```

```
</Data>
```

CREATE AZURE TARGET READ PREFERENCE

Description

Create an Azure target read preference for a particular bucket, overriding the default defined in the Azure target configuration.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/azure_target_read_preference/?bucket_id=
{string}&read_preference=LAST_RESORT|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_
NON_EJECTABLE_TAPE|MINIMUM_LATENCY|NEVER&target_id={string}
```

Request Parameters

Parameter	Description	Required
bucket_id	Bucket UUID, name, or other unique attribute.	yes

Parameter	Description	Required
read_preference	<p>When it is preferable to read from the Azure target rather than the replication source.</p> <p>Values:</p> <ul style="list-style-type: none"> • LAST_RESORT — The target is only used to service a read request if it cannot be serviced locally. This setting should be used in most circumstances. • AFTER_ONLINE_POOL — If data is not available locally on cache or online pool, the target is used to read the data if possible. • AFTER_NEARLINE_POOL — If data is not available locally on cache, online pool, or nearline pool, the target is used to read the data if possible. • AFTER_NON_EJECTABLE_TAPE — If data is not available locally on cache, online pool, nearline pool, or non-ejectable tape, the target is used to read the data if possible. • MINIMUM_LATENCY — The source BlackPearl gateway reads the data from the data partition with the least latency no matter whether it is connected to the source gateway or the target. Use this when <ol style="list-style-type: none"> 1. the cost of the network link to the target is very inexpensive, 2. minimizing latency of servicing GET and VERIFY jobs is critical, and 3. the network throughput to the target is much higher than the tape backend throughput (for example, if the network link to the target is 1 Gb/s, but the tape backend consists of 8 LTO-7 drives, it is very possible that it is faster to service requests locally, even though we must go to tape, since the pipe to the tape backend far exceeds that to the target). • NEVER — The target is never allowed to service a read request. You may want to use this setting when the cost of the network link to the target is very high, or if for data integrity verification purposes, the administrator wants to ensure that all GET and VERIFY requests are serviced locally. 	yes
target_id	BlackPearl target UUID, name, or other unique attribute.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <ReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </ReadPreference>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
BucketId	The container for the response.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
TargetId	The UUID for the replication target.

Example

Sample Request

This request overrides the read preference for the Azure target with the UUID 26bbc55a-417a-49a9-90f5-dbc3920cb0fc to set the read preference for 'bucket1' to **MINIMUM_LATENCY**.

```
POST http[s]://blackpearl-hostname/_rest_/azure_target_read_preference/?bucket_id=
bucket1 &read_preference=MINIMUM_LATENCY&target_id=26bbc55a-417a-49a9-90f5-
dbc3920cb0fc HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <BucketId>502e2d43-fe83-491e-985c-5f4d8d2108c3</BucketId>
  <Id>4b90e88b-63ec-4784-96a3-8408e74ad3ec</Id>
  <ReadPreference>MINIMUM_LATENCY</ReadPreference>
  <TargetId>26bbc55a-417a-49a9-90f5-dbc3920cb0fc</TargetId>
</Data>
```

DELETE AZURE TARGET

Description

Delete the specified Azure replication target.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/azure_target/{Azure target UUID, name, or
other unique attribute}/
```

To determine the UUID for an Azure target, see [Get Azure Targets on page 473](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Azure replication target with the name 'azuretarget'.

```
DELETE http[s]://blackpearl-hostname/_rest_/azure_target/azuretarget/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AZURE TARGET BUCKET NAME

Description

Deletes a custom bucket name mapping between a BlackPearl bucket and an Azure target blob storage container.

Note: The blob storage container on the Azure target is not deleted.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/azure_target_bucket_name/{Azure bucket name, UUID, or other unique identifier or attribute}/
```

To determine the UUID for an Azure blob storage container (bucket), see [Get Azure Target Bucket Names on page 464](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the custom mapping of a bucket on a BlackPearl source to an Azure blob storage container.

```
DELETE http[s]://blackpearl-hostname/_rest_/azure_target_bucket_name/azurebucket/  
HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AZURE TARGET FAILURE

Description

Delete the specified Azure replication target failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/azure_target_failure/{Azure target failure  
UUID or other unique attribute}/
```

To determine the UUID for an Azure target failure, see [Get Azure Target Failures on page 466](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Azure target failure with the UUID df53ea38-a582-4c04-99ef-e5d8071fe188.

```
DELETE http[s]://blackpearl-hostname/_rest_/azure_target_failure/df53ea38-a582-4c04-99ef-e5d8071fe188/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AZURE TARGET READ PREFERENCE

Description

Delete the specified Azure replication target read preference.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/azure_target_read_preference/{Azure target read preference UUID}/
```

To determine the UUID for an Azure target read preference, see [Get Azure Target Read Preference on page 469](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the Azure target read preference with the UUID d196873b-e79a-4824-8f03-99fd98883ab8.

```
DELETE http[s]://blackpearl-hostname/_rest_/azure_target_read_preference/d196873b-
e79a-4824-8f03-99fd98883ab8/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET AZURE TARGET

Description

Get information about the specified Azure target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target/{Azure target instance UUID,
name, or other unique attribute}/
```

To determine the UUID for an Azure target, see [Get Azure Targets on page 473](#).

Responses

Response Elements

```
<Data>
  <AccountKey>{string}</AccountKey>
  <AccountName>{string}</AccountName>
  <AutoVerifyFrequencyInDays>
    {integer}
  </AutoVerifyFrequencyInDays>
  <CloudBucketPrefix>{string}</CloudBucketPrefix>
  <CloudBucketSuffix>{string}</CloudBucketSuffix>
```

```

<DefaultReadPreference>
  MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
  |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
</DefaultReadPreference>
<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastFullyVerified>
<Name>{string}</Name>
<PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
<Quiesced>NO|PENDING|YES</Quiesced>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccountKey	The account key associated with the account name below.
AccountName	The account name for the Microsoft Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Microsoft Azure targets.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Azure target bucket (blob storage container) prefix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.

Parameter	Description
CloudBucketSuffix	The Azure target bucket (blob storage container) suffix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Azure target instance.
LastFullyVerified	The date and time the target was last fully verified in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i> .
Name	The name for the Azure target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 488. Note: This parameter is deprecated.
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request gets information about the Azure target with the name 'TargetAzure'.

```
GET http[s]://blackpearl-hostname/_rest_/azure_target/TargetAzure/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AccountKey>Pq1N85c4a</AccountKey>
  <AccountName>BackupAdmin</AccountName>
  <AutoVerifyFrequencyInDays/>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>8ea4b134-8a51-463d-9fd8-1948d19f6a7b</Id>
  <LastFullyVerified/>
  <Name>TargetAzure</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <State>ONLINE</State>
</Data>
```

GET AZURE TARGET BUCKET NAMES

Description

Gets all Azure bucket name mappings between the local BlackPearl buckets and their Azure target blob storage containers.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_targetbucket_name/[?bucket_id={string}]
[&last_page] [&name={string}] [&page_length={32-bit integer}] [&page_offset=
{32-bit integer}] [&page_start_marker={string}] [&target_id={string}]
```

Responses

Request Parameters

Parameter	Description	Required
bucket_id	Bucket UUID, name, or other unique attribute.	no

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
name	The name of the bucket on the Azure target.	no
page_length	The maximum number of Azure target buckets to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Azure target bucket to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	Azure target UUID, name, or other unique attribute.	no

Responses

Response Elements

```
<Data>
  <AzureTargetBucketName>
    <BucketId>{string}</BucketId>
    <Id>{string}</Id>
    <Name>{string}</Name>
    <TargetId>{string}</TargetId>
  </AzureTargetBucketName>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
Id	The UUID for the bucket mapping.
Name	The name of the Azure blob storage container.
TargetId	The UUID for the Azure replication target.

Example

Sample Request

This request gets a list of all buckets on the Azure target.

```
GET http://blackpearl-hostname/_rest_/azure_target_bucket_name/ HTTP/1.1
```

Sample Response

```
<Data>
  <AzureTargetBucketName>
    <BucketId>220e62e0-c869-479c-a729-7f02316d6317</BucketId>
    <Id>9c3c3732-fab1-4a9c-88da-1fb6c0a6ff3f</Id>
    <Name>custombucketname</Name>
    <TargetId>c14ce94a-9c99-4f19-8373-5000b72313f0</TargetId>
  </AzureTargetBucketName>
  <AzureTargetBucketName>
    <BucketId>220e62e0-c869-479c-a729-7f02316d6317</BucketId>
    <Id>b7524215-aaac-4286-9098-12a3066567b9</Id>
    <Name>custombucketname</Name>
    <TargetId>d5c4ce07-dba9-4b2c-89c1-605d2dd6a4c0</TargetId>
  </AzureTargetBucketName>
</Data>
```

GET AZURE TARGET FAILURES

Description

Get information about all Azure target failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target_failure/[?error_message=
{string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&target_id={string}][&type=IMPORT_FAILED|IMPORT_
INCOMPLETE|NOT_ONLINE|READ_FAILED|READ_INITIATE_FAILED|VERIFY_COMPLETE|VERIFY_
FAILED|WRITE_FAILED|WRITE_INITIATE_FAILED]
```

Request Parameters

Parameter	Description	Required
error_message	The text of the error message.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of Azure target failures to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Azure target failure to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	Azure target UUID, name, or other unique attribute. To determine the UUID for an Azure target, see Get Azure Targets on page 473 .	no
type	The type of error message. Values: IMPORT_FAILED , IMPORT_INCOMPLETE , NOT_ONLINE , READ_FAILED , READ_INITIATE_FAILED , VERIFY_COMPLETE , VERIFY_FAILED , WRITE_FAILED , WRITE_INITIATE_FAILED	no

Responses

Response Elements

```
<Data>
  <AzureTargetFailure>
    <Date>YYYY-MM-DDThh:mm:ss.xxxZ</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <TargetId>{string}</TargetId>
    <Type>
      IMPORT_FAILED|IMPORT_INCOMPLETE|NOT_ONLINE|
      READ_FAILED|READ_INITIATE_FAILED|VERIFY_COMPLETE|
```

```

        VERIFY_FAILED|WRITE_FAILED|WRITE_INITIATE_FAILED
    </Type>
</AzureTargetFailure>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AzureTargetFailure	The container for information about one Azure target failure.
Date	The date and time the error occurred in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i>
ErrorMessage	A description of the error.
Id	The UUID for the error message.
TargetId	The UUID for the Azure target that had the failure.
Type	The type of error message.

Example

Sample Request

This request gets information about all Azure target failures.

```
GET http://blackpearl-hostname/_rest_/azure_target_failure/ HTTP/1.1
```

Sample Response

```

HTTP/1.1 200 OK
<Data>
  <AzureTargetFailure>
    <Date>2016-05-17T14:18:01.000Z</Date>
    <ErrorMessage>{error text}</ErrorMessage>
    <Id>df53ea38-a582-4c04-99ef-e5d8071fe188</Id>
    <TargetId>aa584aa1-f2dd-4064-8db3-f6f07810dc89</TargetId>
    <Type>NOT_ONLINE</Type>
  </AzureTargetFailure>
</Data>

```


GET AZURE TARGET READ PREFERENCE

Description

Get the specified Azure target default read preference.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target_read_preference/{Azure target read preference UUID or other unique attribute}/
```

To determine the UUID for the Azure target read preference, see [Get Azure Target Read Preferences on page 470](#).

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <ReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </ReadPreference>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
Id	The UUID for the read preference.

Parameter	Description
ReadPreference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
TargetId	The UUID for the replication target.

Example

Sample Request

This request gets information about the read preference for the Azure target with the 5cbf1b35-0d06-43f5-aef8-c31e6af14f17.

```
GET http://blackpearl-hostname/_rest_/azure_target_read_preference/5cbf1b35-0d06-43f5-aef8-c31e6af14f17/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <BucketId>b0a6249d-d096-4c05-a428-548f65214fb8</BucketId>
  <Id>6e91318c-8a1a-4b1a-85b4-077c901554bb</Id>
  <ReadPreference>MINIMUM_LATENCY</ReadPreference>
  <TargetId>5cbf1b35-0d06-43f5-aef8-c31e6af14f17</TargetId>
</Data>
```

GET AZURE TARGET READ PREFERENCES

Description

Get information about the default read preference for all Azure targets. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target_read_preference/[?bucket_id=
{string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&read_preference=MINIMUM_LATENCY|AFTER_ONLINE_
POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&target_id=
{string}]
```

Request Parameters

Parameter	Description	Required
bucket_id	The bucket name, UUID, or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of Azure target read preferences to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Azure target read preferences to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
read_preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See <code>read_preference</code> on page 455.	no
target_id	The UUID, name, or other unique attribute for the replication target.	no

Responses

Response Elements

```
<Data>
  <AzureTargetReadPreference>
    <BucketId>{string}</BucketId>
    <Id>{string}</Id>
    <ReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
      |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
    </ReadPreference>
    <TargetId>{string}</TargetId>
  </AzureTargetReadPreference>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AzureTargetRead Preference	The container for information about the read preference for one Azure target.
BucketId	The UUID for the bucket.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
TargetId	The UUID for the replication target.

Example

Sample Request

This request gets information about the read preference for each Azure target registered to the source.

```
GET http://blackpearl-hostname/_rest_/azure_target_read_preference/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AzureTargetReadPreference>
    <BucketId>306e0f35-aadd-4152-90eb-7fcf42df7a15</BucketId>
    <Id>8d0aae6a-2d72-486c-9142-f0542662776f</Id>
    <ReadPreference>MINIMUM_LATENCY</ReadPreference>
    <TargetId>3e0cd533-f062-4504-8063-c59c4e478549</TargetId>
  </AzureTargetReadPreference>
</Data>
```

GET AZURE TARGETS

Description

Get information about all registered Azure targets. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target/[?account_name={string}
[&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_
POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER] [&https=TRUE|FALSE] [&last_page]
[&name={string}] [&page_length={32-bit integer}] [&page_offset={32-bit integer}]
[&page_start_marker={string}] [&permit_going_out_of_sync=TRUE|FALSE]
[&quiesced=NO|PENDING|YES] [&state=ONLINE|LIMITED_ACCESS|OFFLINE]
```

Request Parameters

Parameter	Description	Required
account_name	Enter the account name for the Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Azure targets.	no

Parameter	Description	Required
default_read_preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no
https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE , FALSE .	no
last_page	If included, only the last page of results is returned.	no
name	The name for the Azure target.	no
page_length	The maximum number of Azure targets to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first Azure targets to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 488. Note: This parameter is deprecated.	no
quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO , PENDING , YES	no
state	The state of the Azure target. Values: ONLINE , OFFLINE , LIMITED_ACCESS	no

Responses

```
<Data>
  <AzureTarget>
    <AccountKey>{string}</AccountKey>
    <AccountName>{string}</AccountName>
```

```

<AutoVerifyFrequencyInDays>
  {integer}
</AutoVerifyFrequencyInDays>
<CloudBucketPrefix>{string}</CloudBucketPrefix>
<CloudBucketSuffix>{string}</CloudBucketSuffix>
<DefaultReadPreference>
  MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
  |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
</DefaultReadPreference>
<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified/>
<Name>{string}</Name>
<PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
<Quiesced>NO|PENDING|YES</Quiesced>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</AzureTarget>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AzureTarget	The container for a single Azure Target.
AccountKey	The account key associated with the account name below.
AccountName	The account name for the Microsoft Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Microsoft Azure targets.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.

Parameter	Description
CloudBucketPrefix	The Azure target bucket (blob storage container) prefix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Azure target bucket (blob storage container) suffix. Bucket names on the BlackPearl gateway must be unique within the BlackPearl gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Azure target instance.
LastFullyVerified	The date and time the target was last fully verified in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i> .
Name	The name for the Azure target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 488. Note: This parameter is deprecated.
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request gets information about all Azure targets registered to the source BlackPearl gateway.

```
GET http[s]://blackpearl-hostname/_rest_/azure_target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AzureTarget>
    <AccountKey>Pq1N85c4a</AccountKey>
    <AccountName>BackupAdmin</AccountName>
    <AutoVerifyFrequencyInDays/>
    <CloudBucketPrefix/>
    <CloudBucketSuffix/>
    <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
    <Https>TRUE</Https>
    <Id>8ea4b134-8a51-463d-9fd8-1948d19f6a7b</Id>
    <LastFullyVerified/>
    <Name>Azure-ef4b345d-64c7-4582-95ab-d25845f97531</Name>
    <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
    <Quiesced>NO</Quiesced>
    <State>ONLINE</State>
  </AzureTarget>
  <AzureTarget>
    <AccountKey>Q1lpsd52</AccountKey>
    <AccountName>BackupAdmin</AccountName>
    <AutoVerifyFrequencyInDays/>
    <CloudBucketPrefix/>
    <CloudBucketSuffix/>
    <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
    <Https>TRUE</Https>
    <Id>7b27f5bf-5ae7-4ce9-92e2-fd98092b2088</Id>
    <LastFullyVerified/>
    <Name>Azure-fda1b44d-0d30-47af-a0ff-25d7e6ac0dbd</Name>
    <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
    <Quiesced>NO</Quiesced>
    <State>ONLINE</State>
  </AzureTarget>
</Data>
```

GET BLOBS ON AZURE TARGET

Description

Get the object pieces on the specified Azure target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target/{Azure S3 target instance UUID,
name, or other unique attribute}?operation=GET_PHYSICAL_PLACEMENT/
```

To determine the UUID for an Azure target, see [Get Azure Targets on page 473](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform on the Azure target. For this command, the operation is Get_Physical_Placement .	yes

Responses

Response Elements

```
<Data>
  <Object Bucket="{string}" Id="{string}" Latest="TRUE|FALSE"
  Length="{64-bit integer}" Name="{string}"
  Offset="{64-bit integer}" VersionId="{string}"/>
  <Object Bucket="{string}" Id="{string}" Latest="TRUE|FALSE"
  Length="{64-bit integer}" Name="{string}"
  Offset="{64-bit integer}" VersionId="{string}"/>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Object	The container for the information about one object.

Parameter	Description
Bucket	The name of the bucket containing the object.
Id	The UUID for the object.
Latest	Whether or not the object is the latest version of the file. Values: TRUE, FALSE
Length	The length in bytes of the of object.
Name	The name of the object.
Offset	The object in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request gets a list of all blobs on the Azure target.

```
GET http://blackpearl-hostname/_rest_/azure_target/7b27f5bf-5ae7-4ce9-92e2-
fd98092b2088/?operation=GET_PHYSICAL_PLACEMENT HTTP/1.1
```

Sample Response

```
<Data>
  <Object Bucket="default_bucket_name" Id="1c4fc33b-f997-43f8-
bdb9-9bb5e748c7b8" Latest="TRUE" Length="10" Name="obj1"
Offset="0" VersionId="8fd2c30c-c9bb-447a-81a7-8f8f43917446"/>
  <Object Bucket="default_bucket_name" Id="46d7d57d-f4ae-4406-
bb1b-a850b9a22ecc" Latest="TRUE" Length="10" Name="obj2"
Offset="0" VersionId="fa6a0b92-85c2-44f3-8d21-541c437bda9d"/>
</Data>
```

IMPORT AZURE TARGET

Description

Imports a copy of the objects in the specified bucket on the specified Azure target to the local BlackPearl gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/azure_target/{unique identifier or attribute}?operation=import &cloud_bucket_name={string} [&data_policy_id={unique identifier or attribute}] [&priority={CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND}] [&user_id={unique identifier or attribute}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
cloud_bucket_name	The name or UUID of the bucket on the Azure target to transfer to the BlackPearl gateway.	yes
data_policy_id	The UUID, name, or other unique attribute for the data policy to associate with objects on the Azure target that do not already exist on the BlackPearl gateway. Note: If a bucket with the name <i>cloud_bucket_name</i> , does not already exist on the BlackPearl gateway, then <i>data_policy_id</i> and <i>user_id</i> are required.	no
priority	The priority for processing the import. The <i>priority</i> determines the resources assigned and the processing order. Imports can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
user_id	The UUID, name, or other unique attribute for the user to associate with any buckets on the Azure target that do not already exist on the BlackPearl gateway. Note: If a bucket with the name <i>cloud_bucket_name</i> , does not already exist on the BlackPearl gateway, then <i>data_policy_id</i> and <i>user_id</i> are required.	no

Responses

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This command imports the objects in the bucket named “Images” from the specified Azure target.

```
PUT http://blackpearl-hostname/_rest_/azure_target/f30df4ae-78df-42b4-96a35d11c15e3cf9/?operation=IMPORT&cloudBucketName=Images HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MODIFY ALL AZURE TARGETS

Description

Sets all Azure targets to unquiesced (**NO**), or pending quiesce (**PENDING**) state. The gateway changes the state from pending quiesce (**PENDING**) to quiesced (**YES**).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/azure_target/?quiesced=NO|PENDING
```

Request Parameters

Parameter	Description	Required
quiesced	Request that the gateway prepare all Azure targets to go into an inactive state (PENDING) or return all Azure targets to an active state (NO). Values: NO , PENDING	yes

Responses

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found
- 409: Conflict

Example

Sample Request

This request modifies the quiesced state of all Azure targets to **NO**.

```
PUT http://blackpearl-hostname/_rest_/azure_target/?quiesced=NO HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MODIFY AZURE TARGET

Description

Modify an Azure target.

Notes:

- If an optional request parameter is not included, the previous setting is retained.
- It is not possible to change the quiesced state directly from **NO** to **YES**.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/azure_target/{BlackPearl target instance
UUID, name, or other unique attribute}/[?account_key={string}][&account_name=
{string}][&auto_verify_frequency_in_days={integer}][&cloud_bucket_prefix={string}]
[&cloud_bucket_suffix={string}][&default_read_preference=MINIMUM_LATENCY|AFTER_
ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER]
[&https=TRUE|FALSE][&name={string}][&permit_going_out_of_sync=TRUE|FALSE]
[&quiesced=NO|PENDING]
```

To determine the UUID for an Azure target instance, see [Get Azure Targets](#) on page 473.

Request Parameters

Parameter	Description	Required
account_key	Enter the account key associated with the account name below.	no
account_name	Enter the account name for the Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Azure targets.	no
auto_verify_frequency_in_days	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.	no
cloud_bucket_prefix	The Azure target bucket (blob storage container) prefix. The prefix must adhere to the Azure naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.	no
cloud_bucket_suffix	The Azure target bucket (blob storage container) suffix. The suffix must adhere to the Azure naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.	no
default_read_preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no

Parameter	Description	Required
https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .	no
name	The name for the Azure target.	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Note: This parameter is deprecated.	no
quiesced	Request that the gateway prepare the target to go into an inactive state (PENDING) or return the target to an active state (NO). Values: NO, PENDING	no

Responses

Response Elements

```

<Data>
  <AccountKey>{string}</AccountKey>
  <AccountName>{string}</AccountName>
  <AutoVerifyFrequencyInDays>
    {integer}
  </AutoVerifyFrequencyInDays>
  <CloudBucketPrefix>{string}</CloudBucketPrefix>
  <CloudBucketSuffix>{string}</CloudBucketSuffix>
  <DefaultReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|
    AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </DefaultReadPreference>
  <Https>TRUE|FALSE</Https>
  <Id>{string}</Id>
  <LastFullyVerified>YYYY-MM-DDThh:mm:ss.xxxZ</LastFullyVerified>
  <Name>{string}</Name>
  <PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <State>ONLINE|OFFLINE</State>
</Data>

```


where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccountKey	The account key associated with the account name below.
AccountName	The account name for the Microsoft Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Microsoft Azure targets.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Azure target bucket (blob storage container) prefix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Azure target bucket (blob storage container) suffix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER. See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE.
Id	The UUID for the Azure target instance.

Parameter	Description
LastFullyVerified	The date and time the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Name	The name for the Azure target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 488. Note: This parameter is deprecated.
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request modifies the Azure target named 'TargetAzure' to have the default read preference **MINIMUM_LATENCY**.

```
PUT http[s]://blackpearl-hostname/_rest_/azure_target/TargetAzure/?default_read_preference=MINIMUM_LATENCY HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AccountKey>c3b1YtRyYQ1z</AccountKey>
  <AccountName>BackupAdmin</AccountName>
  <AutoVerifyFrequencyInDays>365</AutoVerifyFrequencyInDays>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>4e5626a0-6733-4625-9ff2-3f89183b3474</Id>
  <LastFullyVerified/>
  <Name>TargetAzure</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <State>ONLINE</State>
</Data>
```

REGISTER AZURE TARGET

Description

Connect to and register the specified Azure target as a replication target for the BlackPearl gateway.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/azure_target/?account_key={string}&account_name={string}&name={string} [&auto_verify_freqency_in_days={integer}] [&cloud_bucket_prefix={string}] [&cloud_bucket_suffix={string}] [&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER] [&https={string}] [&permit_going_out_of_sync=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
account_key	Enter the account key associated with the account name below.	yes
account_name	Enter the account name for the Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Azure targets.	yes
name	The name for the Azure target.	yes
auto_verify_frequency_in_days	The frequency at which a full verify of the data on the target is scheduled. If null (default), no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.	no

Parameter	Description	Required
cloud_bucket_prefix	The Azure target bucket (blob storage container) prefix. The prefix must adhere to the Azure naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.	no
cloud_bucket_suffix	The Azure target bucket (blob storage container) suffix. The suffix must adhere to the Azure naming requirements. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.	no
default_read_preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no
https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE (default), FALSE .	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Values: TRUE , FALSE (default) Note: This parameter is deprecated.	no

Responses

Response Elements

```
<Data>
  <AccountKey>{string}</AccountKey>
  <AccountName>{string}</AccountName>
```

```

<AutoVerifyFrequencyInDays>{string}</AutoVerifyFrequencyInDays>
<CloudBucketPrefix>{string}</CloudBucketPrefix>
<CloudBucketSuffix>{string}</CloudBucketSuffix>
<DefaultReadPreference>
  MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
  |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
</DefaultReadPreference>
<Https>TRUE|FALSE</Https>
<Id>{string}</Id>
<LastFullyVerified/>
<Name>{string}</Name>
<PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
<Quiesced>NO|PENDING|YES</Quiesced>
<State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccountKey	The account key associated with the account name below.
AccountName	The account name for the Microsoft Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Microsoft Azure targets.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Azure target bucket (blob storage container) prefix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.

Parameter	Description
CloudBucketSuffix	The Azure target bucket (blob storage container) suffix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE , FALSE .
Id	The UUID for the Azure target instance.
LastFullyVerified	The date and time the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Name	The name for the Azure target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 488. Note: This parameter is deprecated.
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO , PENDING , YES
State	The state of the Azure target. Values: ONLINE , OFFLINE , LIMITED_ACCESS

Example

Sample Request

This request registers an Azure target with the Administrator S3 Access Id 'BackupAdmin', the Administrator S3 Secret Key 'd7pJBeAN', and the name 'TargetAzure' to use a default read preference of **MINIMUM_LATENCY** as a replication target for the BlackPearl gateway.

```
POST http[s]://blackpearl-hostname/_rest_/azure_target/?account_name=Backupadmin&account_key=d7pJBeAN&name=TargetAzure&default_read_preference=MINIMUM_LATENCY HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <AccountKey>d7pJBeAN</AccountKey>
  <AccountName>BackupAdmin</AccountName>
  <AutoVerifyFrequencyInDays/>
  <CloudBucketPrefix/>
  <CloudBucketSuffix/>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>3918b938-05e2-482b-b010-bdb24e2283f7</Id>
  <LastFullyVerified/>
  <Name>TargetAzure</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <State>ONLINE</State>
</Data>
```

VERIFY AZURE TARGET

Description

Verifies connectivity to the Azure target and that the Administrator credentials are correct. If `full_details` is specified, the operation verifies that all data expected to reside on the target does in fact reside there.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/azure_target/{Azure target instance UUID,
name, or other unique attribute}?operation=VERIFY[&full_details]
```

To determine the UUID for an Azure target instance, see [Get Azure Targets on page 473](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is verify. Value: VERIFY	yes
full_details	If included, the operation verifies that all data expected to reside on the target does in fact reside there.	no

Responses

Response Elements

```
<Data>
  <AccountKey>{string}</AccountKey>
  <AccountName>{string}</AccountName>
  <AutoVerifyFrequencyInDays>{string}</AutoVerifyFrequencyInDays>
  <CloudBucketPrefix>{string}</CloudBucketPrefix>
  <CloudBucketSuffix>{string}</CloudBucketSuffix>
  <DefaultReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </DefaultReadPreference>
  <Https>TRUE|FALSE</Https>
  <Id>{string}</Id>
  <LastFullyVerified>{string}</LastFullyVerified>
  <Name>{string}</Name>
  <PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccountKey	The account key associated with the account name below.

Parameter	Description
Account Name	The account name for the Microsoft Azure account in the in the Account Name field. Note: You can not use the same Account Name for multiple Microsoft Azure targets.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled. It is useful to schedule auto verify when the target is a storage domain in a data policy using replicate deletes. The verify ensures that deletes replicate in a timely manner.
CloudBucketPrefix	The Azure target bucket (blob storage container) prefix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Prefix to the BlackPearl bucket name when it replicates the bucket.
CloudBucketSuffix	The Azure target bucket (blob storage container) suffix. Bucket names on the BlackPearl gateway must be unique within the gateway, but bucket names in Microsoft Azure must be unique across the world. To permit friendlier, shorter local bucket names on the BlackPearl gateway while avoiding naming conflicts with Azure, the BlackPearl gateway optionally adds the defined Cloud Bucket Suffix to the BlackPearl bucket name when it replicates the bucket.
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER. See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE.
Id	The UUID for the Azure target instance.
LastFullyVerified	The date and time the target was last fully verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Name	The name for the Azure target.

Parameter	Description
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See <code>permit_going_out_of_sync</code> on page 488. Note: This parameter is deprecated.
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES
State	The state of the Azure target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request confirms connectivity to the Azure target and verifies the credentials of the administrator.

```
PUT http[s]://blackpearl-hostname/_rest_/azure_target/AzureTarget/?operation=VERIFY
HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <AccountKey>Qb420x1</AccountKey>
  <AccountName>BackupAdmin</AccountName>
  <AutoVerifyFrequencyInDays/>
  <CloudBucketPrefix/>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Https>TRUE</Https>
  <Id>91e7b12f-112a-4d27-b4b1-b81cd861dd30</Id>
  <LastFullyVerified/>
  <Name>AzureTarget</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <State>ONLINE</State>
</Data>
```

DS3 REPLICATION TARGET COMMANDS

Create DS3 Target Read Preference	496
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Modify DS3 Target	524
Pair Back Registered DS3 Target	528
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CREATE DS3 TARGET READ PREFERENCE

Description

Create a DS3 target read preference for a particular bucket, overriding the default defined in the DS3 target configuration.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/ds3_target_read_preference/?bucket_id={string} &read_preference=LAST_RESORT|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|MINIMUM_LATENCY|NEVER&target_id={string}
```

Request Parameters

Parameter	Description	Required
bucket_id	Bucket UUID, name, or other unique attribute.	yes

Parameter	Description	Required
read_preference	<p>When it is preferable to read from the DS3 target rather than the replication source.</p> <p>Values:</p> <ul style="list-style-type: none"> • LAST_RESORT — The target is only used to service a read request if it cannot be serviced locally. This setting should be used in most circumstances. • AFTER_ONLINE_POOL — If data is not available locally on cache or online pool, the target is used to read the data if possible. • AFTER_NEARLINE_POOL — If data is not available locally on cache, online pool, or nearline pool, the target is used to read the data if possible. • AFTER_NON_EJECTABLE_TAPE — If data is not available locally on cache, online pool, nearline pool, or non-ejectable tape, the target is used to read the data if possible. • MINIMUM_LATENCY — The source BlackPearl gateway dynamically determines the read preference based on whether the requested data resides in a pool or on tape. If, for example, the source has the data on tape, but the target has the data on pool, the source uses the target to service the request. If however, the source and target both have the data on pool, the source is used to service the request. Use this when <ol style="list-style-type: none"> 1. the cost of the network link to the target is very inexpensive, 2. minimizing latency of servicing GET and VERIFY jobs is critical, and 3. the network throughput to the target is much higher than the tape backend throughput (for example, if the network link to the target is 1 Gb/s, but the tape backend consists of 8 LTO-7 drives, it is very possible that it is faster to service requests locally, even though we must go to tape, since the pipe to the tape backend far exceeds that to the target). • NEVER — The target is never allowed to service a read request. You may want to use this setting when the cost of the network link to the target is very high, or if for data integrity verification purposes, the administrator wants to ensure that all GET and VERIFY requests are serviced locally. 	yes
target_id	BlackPearl target UUID, name, or other unique attribute.	yes

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <ReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </ReadPreference>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
BucketId	The container for the response.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 497.
TargetId	The UUID for the replication target.

Example

Sample Request

This request overrides the read preference for the DS3 target with the UUID 26bbc55a-417a-49a9-90f5-dbc3920cb0fc to set the read preference for 'bucket1' to **MINIMUM_LATENCY**.

```
POST http[s]://blackpearl-hostname/_rest_/ds3_target_read_preference/?bucket_id=
bucket1 &read_preference=MINIMUM_LATENCY&target_id=26bbc55a-417a-49a9-90f5-
dbc3920cb0fc HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <BucketId>502e2d43-fe83-491e-985c-5f4d8d2108c3</BucketId>
  <Id>4b90e88b-63ec-4784-96a3-8408e74ad3ec</Id>
  <ReadPreference>MINIMUM_LATENCY</ReadPreference>
  <TargetId>26bbc55a-417a-49a9-90f5-dbc3920cb0fc</TargetId>
</Data>
```

DELETE DS3 TARGET

Description

Delete the specified DS3 replication target.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/ds3_target/{DS3 target UUID, name, or
other unique attribute}/
```

To determine the UUID for a DS3 target, see [Get DS3 Targets on page 516](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the DS3 replication target with the name 'ds3target'.

```
DELETE http[s]://blackpearl-hostname/_rest_/ds3_target/ds3target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE DS3 TARGET FAILURE

Description

Delete the specified DS3 replication target failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/ds3_target_failure/{DS3 target failure  
UUID or other unique attribute}/
```

To determine the UUID for a DS3 target failure, see [Get DS3 Target Failures on page 509](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the DS3 target failure with the UUID df53ea38-a582-4c04-99ef-e5d8071fe188.

```
DELETE http[s]://blackpearl-hostname/_rest_/ds3_target_failure/df53ea38-a582-4c04-99ef-e5d8071fe188/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE DS3 TARGET READ PREFERENCE

Description

Delete the specified DS3 replication target read preference.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/ds3_target_read_preference/{DS3 target read preference UUID}/
```

To determine the UUID for a DS3 target read preference, see [Get DS3 Target Read Preference](#) on page 511.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the DS3 target read preference with the UUID d196873b-e79a-4824-8f03-99fd98883ab8.

```
DELETE http[s]://blackpearl-hostname/_rest_/ds3_target_read_preference/d196873b-
e79a-4824-8f03-99fd98883ab8/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET DS3 TARGET

Description

Get information about the specified DS3 target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target/{DS3 target instance UUID, name,
or other unique attribute}/
```

To determine the UUID for a DS3 target, see [Get DS3 Targets on page 516](#).

Responses

Response Elements

```

<Data>
  <AccessControlReplication>
    NONE | USERS
  </AccessControlReplication>
  <AdminAuthId>{string}</AdminAuthId>
  <AdminSecretKey>{string}</AdminSecretKey>
  <DataPathEndPoint>{string}</DataPathEndPoint>
  <DataPathHttps>TRUE | FALSE</DataPathHttps>
  <DataPathPort>{16-bit integer}</DataPathPort>
  <DataPathProxy>{string}</DataPathProxy>
  <DataPathVerifyCertificate>
    TRUE | FALSE
  </DataPathVerifyCertificate>
  <DefaultReadPreference>
    MINIMUM_LATENCY | AFTER_ONLINE_POOL | AFTER_NEARLINE_POOL
    | AFTER_NON_EJECTABLE_TAPE | LAST_RESORT | NEVER
  </DefaultReadPreference>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <PermitGoingOutOfSync>TRUE | FALSE</PermitGoingOutOfSync>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReplicatedUserDefaultDataPolicy>
    {string}
  </ReplicatedUserDefaultDataPolicy>
  <State>ONLINE | OFFLINE</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessControl Replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> • NONE — No access control is replicated. • USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.
AdminAuthId	The S3 access ID assigned to an Administrator.

Parameter	Description
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .
DataPathEndPoint	The IPv4 address or DNS name for the data path of the DS3 target.
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE
DataPathPort	The value of the port on which the target BlackPearl gateway's Amazon S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE
DefaultRead Preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 497.
Id	The UUID for the DS3 target instance.
Name	The name for the DS3 target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 533.
Quiesced	Whether the DS3 target is in a temporarily inactive state. Values: NO, PENDING, YES
ReplicatedUser DefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.
State	The state of the DS3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request gets information about the DS3 target with the name 'TargetDS3'.

```
GET http[s]://blackpearl-hostname/_rest_/ds3_target/TargetDS3/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AccessControlReplication>NONE</AccessControlReplication>
  <AdminAuthId>c381Y3RyYQ==</AdminAuthId>
  <AdminSecretKey>d7pJBeAN</AdminSecretKey>
  <DataPathEndPoint>192.168.4.8</DataPathEndPoint>
  <DataPathHttps>TRUE</DataPathHttps>
  <DataPathPort/>
  <DataPathProxy/>
  <DataPathVerifyCertificate>TRUE</DataPathVerifyCertificate>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Id>c927287a-90eb-428e-88ae-faedc3749e17</Id>
  <Name>TargetDS3</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <ReplicatedUserDefaultDataPolicy/>
  <State>ONLINE</State>
</Data>
```

GET DS3 TARGET DATA POLICIES

Description

Get all data policies for the specified DS3 target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target_data_policies/{DS3 target UUID,
name, or other unique attribute}/
```

To determine the UUID for a DS3 target, see [Get DS3 Targets](#) on page 516.

Responses

Response Elements

```

<Data>
  <DataPolicy>
    <AlwaysForcePutJobCreation>
      TRUE | FALSE
    </AlwaysForcePutJobCreation>
    <AlwaysMinimizeSpanningAcrossMedia>
      TRUE | FALSE
    </AlwaysMinimizeSpanningAcrossMedia>
    <BlobbingEnabled>TRUE</BlobbingEnabled>
    <ChecksumType>
      CRC_32 | CRC_32C | MD5 | SHA_256 | SHA_512
    </ChecksumType>
    <CreationDate>YYYY-MM-DDThh:mm:ss.xxxZ</CreationDate>
    <DefaultBlobSize>{64-bit integer}</DefaultBlobSize>
    <DefaultGetJobPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </DefaultGetJobPriority>
    <DefaultPutJobPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </DefaultPutJobPriority>
    <DefaultVerifyAfterWrite>
      TRUE | FALSE
    </DefaultVerifyAfterWrite>
    <DefaultVerifyJobPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </DefaultVerifyJobPriority>
    <EndToEndCrcRequired>TRUE | FALSE</EndToEndCrcRequired>
    <Id>{string}</Id>
    <MaxVersionsToKeep>{32-bit integer}</MaxVersionsToKeep>
    <Name>{string}</Name>
    <RebuildPriority>
      CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
    </RebuildPriority>
    <Versioning>
      NONE | KEEP_LATEST | KEEP_MULTIPLE_VERSIONS
    </Versioning>
  </DataPolicy>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPolicy	The container for information about one data policy.
AlwaysForcePutJobCreation	Whether all PUT jobs created for this data policy are created even if one or more storage domains and/or replication targets the BlackPearl gateway must PUT to is unavailable, or if there are global issues that would likely prevent the completion of the job. Values: TRUE, FALSE
AlwaysMinimizeSpanningAcross Media	Whether all PUT jobs created for this data policy are created to minimize spanning across media. Values: TRUE, FALSE . See always_minimize_spanning_across_media on page 327.
BlobbingEnabled	Whether or not blobbing is enabled.
ChecksumType	Type of checksum used to verify data integrity for any operations involving this data policy. Values: CRC_32, CRC_32C, MD5, SHA_256, SHA_512
CreationDate	The date and time the data policy was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DefaultBlobSize	The maximum blob size.
DefaultGetJobPriority	The default GET job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultVerifyAfterWrite	Whether data is verified by default after it is written. Values: TRUE, FALSE
DefaultPutJobPriority	The default PUT job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
DefaultVerifyJobPriority	The default verify job priority for the data policy. The job priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
EndToEndCrcRequired	Whether or not clients are required to compute and send an end-to-end CRC. Values: TRUE, FALSE

Parameter	Description
Id	The UUID for the data policy.
MaxVersionsTo Keep	The number of versions of an object to keep if versioning= KEEP_MULTIPLE_VERSIONS .
Name	The name of the data policy.
RebuildPriority	The rebuild priority for the data policy. The rebuild priority determines the relative priority compared to other jobs being processed. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
Versioning	The mode of versioning used by the data policy. Values: NONE, KEEP_LATEST, KEEP_MULTIPLE_VERSIONS see versioning on page 330 .

Example

Sample Request

This request gets information about all data policies on the target named 'target1'.

```
GET http://blackpearl-hostname/_rest_/ds3_target_data_policies/target1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<DataPolicy>
```

```
<AlwaysForcePutJobCreation>FALSE</AlwaysForcePutJobCreation>
```

```
<AlwaysMinimizeSpanningAcrossMedia>
```

```
FALSE
```

```
</AlwaysMinimizeSpanningAcrossMedia>
```

```
<BlobbingEnabled>TRUE</BlobbingEnabled>
```

```
<ChecksumType>MD5</ChecksumType>
```

```
<CreationDate>2015-07-29 16:26:12.768</CreationDate>
```

```
<DefaultBlobSize/>
```

```
<DefaultGetJobPriority>HIGH</DefaultGetJobPriority>
```

```
<DefaultPutJobPriority>NORMAL</DefaultPutJobPriority>
```



```

    <DefaultVerifyAfterWrite>FALSE</DefaultVerifyAfterWrite>
    <DefaultVerifyJobPriority>LOW</DefaultVerifyJobPriority>
    <EndToEndCrcRequired>FALSE</EndToEndCrcRequired>
    <Id>43d40cce-bb94-4b73-a504-8811f37d8012</Id>
    <MaxVersionsToKeep>1000</MaxVersionsToKeep>
    <Name>policy1</Name>
    <RebuildPriority>LOW</RebuildPriority>
    <Versioning>NONE</Versioning>
  </DataPolicy>
  ...
</Data>

```

GET DS3 TARGET FAILURES

Description

Get information about all DS3 target failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/ds3_target_failure/[?error_message={string}]
[&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&target_id={string}][&type=IMPORT_FAILED|IMPORT_
INCOMPLETE|NOT_ONLINE|READ_FAILED|READ_INITIATE_FAILED|VERIFY_COMPLETE|VERIFY_
FAILED|WRITE_FAILED|WRITE_INITIATE_FAILED]

```

Request Parameters

Parameter	Description	Required
error_message	The text of the error message.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of DS3 target failures to list. Default: all items after <code>page_offset</code> .	no

Parameter	Description	Required
page_offset	The starting point for the first DS3 target failure to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	DS3 target UUID, name, or other unique attribute. To determine the UUID for a DS3 target, see Get DS3 Targets on page 516 .	no
type	The type of error message. Values: Values: IMPORT_FAILED, IMPORT_INCOMPLETE, NOT_ONLINE, READ_FAILED, READ_INITIATE_FAILED, VERIFY_COMPLETE, VERIFY_FAILED, WRITE_FAILED, WRITE_INITIATE_FAILED	no

Responses

Response Elements

```

<Data>
  <Ds3TargetFailure>
    <Date>YYYY-MM-DDThh:mm:ss.xxxZ</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <TargetId>{string}</TargetId>
    <Type>
      IMPORT_FAILED|IMPORT_INCOMPLETE|NOT_ONLINE|READ_FAILED|
      READ_INITIATE_FAILED|VERIFY_COMPLETE|
      VERIFY_FAILED|WRITE_FAILED|WRITE_INITIATE_FAILED
    </Type>
  </Ds3TargetFailure>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
Ds3TargetFailure	The container for information about one DS3 target failure.
Date	The date and time the error occurred in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i>
ErrorMessage	A description of the error.
Id	The UUID for the error message.
TargetId	The UUID for the DS3 target that had the failure.
Type	The type of error message.

Example

Sample Request

This request gets information about all DS3 target failures.

```
GET http://blackpearl-hostname/_rest_/ds3_target_failure/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Ds3TargetFailure>
    <Date>2016-05-17T14:18:01.000Z</Date>
    <ErrorMessage>{error text}</ErrorMessage>
    <Id>df53ea38-a582-4c04-99ef-e5d8071fe188</Id>
    <TargetId>aa584aa1-f2dd-4064-8db3-f6f07810dc89</TargetId>
    <Type>NOT_ONLINE</Type>
  </Ds3TargetFailure>
</Data>
```

GET DS3 TARGET READ PREFERENCE

Description

Get the specified DS3 target default read preference.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target_read_preference/{DS3 target read preference UUID or other unique attribute}/
```

To determine the UUID for the DS3 target read preference, see [Get DS3 Target Read Preferences on page 513](#).

Responses

Response Elements

```
<Data>
  <BucketId>{string}</BucketId>
  <Id>{string}</Id>
  <ReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </ReadPreference>
  <TargetId>{string}</TargetId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketId	The UUID for the bucket.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455 .
TargetId	The UUID for the replication target.

Example

Sample Request

This request gets information about the read preference for the DS3 target with the 5cbf1b35-0d06-43f5-aef8-c31e6af14f17.

```
GET http://blackpearl-hostname/_rest_/ds3_target_read_preference/5cbf1b35-0d06-43f5-aef8-c31e6af14f17/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <BucketId>b0a6249d-d096-4c05-a428-548f65214fb8</BucketId>
  <Id>6e91318c-8a1a-4b1a-85b4-077c901554bb</Id>
  <ReadPreference>MINIMUM_LATENCY</ReadPreference>
  <TargetId>5cbf1b35-0d06-43f5-aef8-c31e6af14f17</TargetId>
</Data>
```

GET DS3 TARGET READ PREFERENCES

Description

Get information about the default read preference for all DS3 targets. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target_read_preference/[?bucket_id={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&target_id={string}]
```

Request Parameters

Parameter	Description	Required
bucket_id	The bucket name, UUID, or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of DS3 target read preferences to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first DS3 target read preference to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
read_preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no
target_id	The UUID, name, or other unique attribute for the replication target.	no

Responses

Response Elements

```
<Data>
  <Ds3TargetReadPreference>
    <BucketId>{string}</BucketId>
    <Id>{string}</Id>
    <ReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
      |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
    </ReadPreference>
    <TargetId>{string}</TargetId>
  </Ds3TargetReadPreference>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Ds3TargetRead Preference	The container for information about the read preference for one DS3 target.
BucketId	The UUID for the bucket.
Id	The UUID for the read preference.
ReadPreference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
TargetId	The UUID for the replication target.

Example

Sample Request

This request gets information about the read preference for each DS3 target registered to the source.

```
GET http://blackpearl-hostname/_rest_/ds3_target_read_preference/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <Ds3TargetReadPreference>
    <BucketId>306e0f35-aadd-4152-90eb-7fcf42df7a15</BucketId>
    <Id>8d0aae6a-2d72-486c-9142-f0542662776f</Id>
    <ReadPreference>MINIMUM_LATENCY</ReadPreference>
    <TargetId>3e0cd533-f062-4504-8063-c59c4e478549</TargetId>
  </Ds3TargetReadPreference>
</Data>
```

GET DS3 TARGETS

Description

Get information about all registered DS3 targets. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target/[?admin_auth_id={string}][&data_path_end_point={string}][&data_path_https=TRUE|FALSE][&data_path_port={32-bit integer}][&data_path_proxy={string}][&data_path_verify_certificate=TRUE|FALSE][&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&last_page][&name={string}][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&permit_going_out_of_sync=TRUE|FALSE][&quiesced=NO|PENDING|YES][&state=ONLINE|LIMITED_ACCESS|OFFLINE]
```

Request Parameters

Parameter	Description	Required
admin_auth_id	The DS3 access ID assigned to an Administrator.	no

Parameter	Description	Required
data_path_end_point	The IPv4 address or DNS name for the data path of the DS3 target.	no
data_path_https	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE	no
data_path_port	The value of the port on which the target BlackPearl gateway's DS3 server is running.	no
data_path_proxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	no
data_path_verify_certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE	no
default_read_preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 403.	no
last_page	If included, only the last page of results is returned.	no
name	The name for the DS3 target.	no
page_length	The maximum number of DS3 targets to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first DS3 target to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Parameter	Description	Required
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. See <code>permit_going_out_of_sync</code> on page 533.	no
quiesced	Whether the DS3 target is in a temporarily inactive state. Values: NO, PENDING, YES	no
state	The state of the DS3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS	no

Responses

Response Elements

```

<Data>
  <Ds3Target>
    <AccessControlReplication>
      NONE | USERS
    </AccessControlReplication>
    <AdminAuthId>{string}</AdminAuthId>
    <AdminSecretKey>{string}</AdminSecretKey>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DataPathHttps>TRUE | FALSE</DataPathHttps>
    <DataPathPort>{16-bit integer}</DataPathPort>
    <DataPathProxy>{string}</DataPathProxy>
    <DataPathVerifyCertificate>
      TRUE | FALSE
    </DataPathVerifyCertificate>
    <DefaultReadPreference>
      MINIMUM_LATENCY | AFTER_ONLINE_POOL | AFTER_NEARLINE_POOL
      | AFTER_NON_EJECTABLE_TAPE | LAST_RESORT | NEVER
    </DefaultReadPreference>
    <Id>{string}</Id>
    <Name>{string}</Name>
    <PermitGoingOutOfSync>TRUE | FALSE</PermitGoingOutOfSync>
    <Quiesced>NO | PENDING | YES</Quiesced>
    <ReplicatedUserDefaultDataPolicy>
      {string}
    </ReplicatedUserDefaultDataPolicy>
    <State>ONLINE | OFFLINE</State>
  </Ds3Target>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Ds3Target	The container for information about one DS3 target.
AccessControl Replication	The access control that is replicated to the DS3 target. Values: NONE — No access control is replicated. USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.
AdminAuthId	The S3 access ID assigned to an Administrator.
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .
DataPathEndPoint	The IPv4 address or DNS name for the data path of the DS3 target.
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE
DataPathPort	The value of the port on which the target BlackPearl gateway's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE
DefaultRead Preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Id	The UUID for the DS3 target instance.
Name	The name for the DS3 target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 533.

Parameter	Description
Quiesced	Whether the DS3 target is in a temporarily inactive state. Values: NO , PENDING , YES
ReplicatedUserDefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.
State	The state of the DS3 target. Values: ONLINE , OFFLINE , LIMITED_ACCESS

Example

Sample Request

This request gets information about all DS3 targets registered to the source BlackPearl gateway.

```
GET http[s]://blackpearl-hostname/_rest_/ds3_target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Ds3Target>
    <AccessControlReplication>NONE</AccessControlReplication>
    <AdminAuthId>c381Y3RyYQ==</AdminAuthId>
    <AdminSecretKey>d7pJBeAN</AdminSecretKey>
    <DataPathEndPoint>192.168.15.16</DataPathEndPoint>
    <DataPathHttps>TRUE</DataPathHttps>
    <DataPathPort/>
    <DataPathProxy/>
    <DataPathVerifyCertificate>TRUE</DataPathVerifyCertificate>
    <DefaultReadPreference>LAST_RESORT</DefaultReadPreference>
    <Id>c927287a-90eb-428e-88ae-faedc3749e17</Id>
    <Name>TargetBP</Name>
    <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
    <Quiesced>NO</Quiesced>
    <ReplicatedUserDefaultDataPolicy/>
    <State>ONLINE</State>
  </Ds3Target>
</Data>
```

GET BLOBS ON DS3 TARGET

Description

Get the object pieces on the specified DS3 target.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target/{DS3 target read preference UUID
or other unique attribute}/?operation=GET_PHYSICAL_PLACEMENT
```

To determine the UUID for the DS3 target read preference, see [Get DS3 Target Read Preferences on page 513](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform on the DS3 target. For this command, the operation is Get_Physical_Placement .	yes

Responses

Response Elements

```
<Data>
  <Object Bucket="{string}" Id="{string}" Latest="TRUE|FALSE"
  Length="{64-bit integer}" Name="{string}"
  Offset="{64-bit integer}" VersionId="{string}"/>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Object	The container for the information about one object.

Parameter	Description
Bucket	The name of the bucket containing the object.
Id	The UUID for the object.
Latest	Whether or not the object is the latest version of the file. Values: TRUE, FALSE
Length	The length in bytes of the of object.
Name	The name of the object.
Offset	The object in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request gets a list of all blobs on the DS3 target.

```
GET http://blackpearl-hostname/_rest_/ds3_target/c927287a-90eb-428e-88ae-
faedc3749e17/?operation=GET_PHYSICAL_PLACEMENT HTTP/1.1
```

Sample Response

```
<Data>
  <Object Bucket="default_bucket_name" Id="1c4fc33b-f997-43f8-
bdb9-9bb5e748c7b8" Latest="TRUE" Length="10" Name="obj1"
Offset="0" VersionId="fa6a0b92-85c2-44f3-8d21-541c437bda9d"/>
  <Object Bucket="default_bucket_name" Id="46d7d57d-f4ae-4406-
bb1b-a850b9a22ecc" Latest="TRUE" Length="10" Name="obj2"
Offset="0" VersionId="274da5c4-b94a-47ae-80c0-e6b8e1be55a0"/>
</Data>
```

MODIFY ALL DS3 TARGETS

Description

Sets all DS3 targets to unquiesced (**NO**), or pending quiesce (**PENDING**) state. The gateway changes the state from pending quiesce (**PENDING**) to quiesced (**YES**).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/ds3_target/?quiesced=NO|PENDING
```

Request Parameters

Parameter	Description	Required
quiesced	Request that the gateway prepare all DS3 targets to go into an inactive state (PENDING) or return all DS3 targets to an active state (NO).	yes

Responses

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found
- 409: Conflict

Example

Sample Request

This request modifies the quiesced state of all DS3 targets to **NO**.

```
PUT http://blackpearl-hostname/_rest_/ds3_target/?quiesced=NO HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MODIFY DS3 TARGET

Description

Modify a DS3 target.

Notes:

- If an optional request parameter is not included, the previous setting is retained.
- It is not possible to change the quiesced state directly from **NO** to **YES**.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/ds3_target/{BlackPearl target instance UUID,
name, or other unique attribute}/[?access_control_replication=NONE|USERS][admin_
auth_id={string} [&admin_secret_key={string}] [&data_path_end_point={string}] [&data_
path_https=TRUE|FALSE] [&data_path_port={32-bit integer}] [&data_path_proxy={string}]
 [&data_path_verify_certificate=TRUE|FALSE] [&default_read_preference=MINIMUM_
LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_
RESORT|NEVER] [&name={string}] [&permit_going_out_of_sync=TRUE|FALSE]
 [&quiesced=NO|PENDING] [&replicated_user_default_data_policy={string}]
```

To determine the UUID for a DS3 target instance, see [Get DS3 Targets on page 516](#).

Request Parameters

Parameter	Description	Required
access_control_replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> • NONE — No access control is replicated. • USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway. 	no
admin_auth_id	The S3 access ID assigned to an Administrator.	no
admin_secret_key	The S3 secret key for the account matching the given admin_auth_id .	no

Parameter	Description	Required
data_path_end_point	The IPv4 address or DNS name for the data path of the DS3 target.	no
data_path_https	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE	no
data_path_port	The value of the port on which the target BlackPearl gateway's DS3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.	no
data_path_proxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	no
data_path_verify_certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Do not set this to TRUE if the target gateway is using the default self-signed SSL certificate. Values: TRUE, FALSE	no
default_read_preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 497.	no
name	The name for the DS3 target.	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Values: TRUE, FALSE	no
quiesced	Request that the gateway prepare the target to go into an inactive state (PENDING) or return the target to an active state (NO). Values: NO, PENDING	no
replicated_user_default_data_policy	The data policy the target applies as the default data policy for any users replicated to the target.	no

Responses

Response Elements

```

<Data>
  <AccessControlReplication>
    NONE | USERS
  </AccessControlReplication>
  <AdminAuthId>{string}</AdminAuthId>
  <AdminSecretKey>{string}</AdminSecretKey>
  <DataPathEndPoint>{string}</DataPathEndPoint>
  <DataPathHttps>TRUE | FALSE</DataPathHttps>
  <DataPathPort>{16-bit integer}</DataPathPort>
  <DataPathProxy>{string}</DataPathProxy>
  <DataPathVerifyCertificate>
    TRUE | FALSE
  </DataPathVerifyCertificate>
  <DefaultReadPreference>
    MINIMUM_LATENCY | AFTER_ONLINE_POOL | AFTER_NEARLINE_POOL
    | AFTER_NON_EJECTABLE_TAPE | LAST_RESORT | NEVER
  </DefaultReadPreference>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <PermitGoingOutOfSync>TRUE | FALSE</PermitGoingOutOfSync>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReplicatedUserDefaultDataPolicy>
    {string}
  </ReplicatedUserDefaultDataPolicy>
  <State>ONLINE | OFFLINE | LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessControl Replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> • NONE — No access control is replicated. • USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.
AdminAuthId	The S3 access ID assigned to an Administrator.

Parameter	Description
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .
DataPathEndPoint	The IPv4 address or DNS name for the data path of the DS3 target.
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE
DataPathPort	The value of the port on which the target BlackPearl gateway's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE
DefaultRead Preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Id	The UUID for the DS3 target instance. Note: If a DS3 target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.
Name	The name for the DS3 target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 533.
Quiesced	Whether the DS3 target is in a temporarily inactive state. Values: NO, PENDING, YES
ReplicatedUser DefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.
State	The state of the DS3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request modifies the DS3 target named 'TargetDS3' to have the default read preference **MINIMUM_LATENCY**.

```
PUT http[s]://blackpearl-hostname/_rest_/ds3_target/TargetDS3/?default_read_preference=MINIMUM_LATENCY HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AccessControlReplication>NONE</AccessControlReplication>
  <AdminAuthId>c381Y3RyYQ==</AdminAuthId>
  <AdminSecretKey>d7pJBeAN</AdminSecretKey>
  <DataPathEndPoint>192.168.4.8</DataPathEndPoint>
  <DataPathHttps>TRUE</DataPathHttps>
  <DataPathPort/>
  <DataPathProxy/>
  <DataPathVerifyCertificate>TRUE</DataPathVerifyCertificate>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Id>c927287a-90eb-428e-88ae-faedc3749e17</Id>
  <Name>TargetBP</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <ReplicatedUserDefaultDataPolicy/>
  <State>ONLINE</State>
</Data>
```

PAIR BACK REGISTERED DS3 TARGET

Description

Pairs back the DS3 target with the replication source such that the source points to the DS3 target and the DS3 target points to the source (enabling bidirectional replication). Use optional parameters to modify the registration settings for the pair back.

Note: If the name parameter is not included, name is set to the BlackPearl gateway's serial number. If any other optional request parameter is not included, the setting used to register the original DS3 target is used.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/ds3_target/{DS3 target instance UUID, name,
or other unique attribute}/?operation=PAIR_BACK[&access_control_
replication=NONE|USERS][admin_auth_id={string}][&admin_secret_key={string}][&data_
path_end_point={string}][&data_path_https=TRUE|FALSE][&data_path_port=
{32-bit integer}][&data_path_proxy={string}][&data_path_verify_
certificate=TRUE|FALSE][&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_
POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER][&name={string}]
[&permit_going_out_of_sync=TRUE|FALSE][&replicated_user_default_data_policy=
{string}]
```

To determine the UUID for a DS3 target instance, see [Get DS3 Targets on page 516](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is pair back. Value: PAIR_BACK	yes
access_control_replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> NONE — No access control is replicated. USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway. 	no
admin_auth_id	The S3 access ID assigned to an Administrator.	no
admin_secret_key	The S3 secret key for the account matching the given admin_auth_id .	no
data_path_end_point	The IPv4 address or DNS name for the data path of the DS3 target.	no
data_path_https	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE , FALSE	no
data_path_port	The value of the port on which the DS3 target's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.	no

Parameter	Description	Required
data_path_proxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	no
data_path_verify_certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Do not set this to TRUE if the target gateway is using the default self-signed SSL certificate. Values: TRUE, FALSE	no
default_read_preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 497.	no
name	The name for the DS3 target. Default: system serial number.	no
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Values: TRUE, FALSE	no
replicated_user_default_data_policy	The data policy the target applies as the default data policy for any users replicated to the target.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request pairs back the DS3 target named 'DS3Target' using all of the same registration parameters.

```
PUT http[s]://blackpearl-hostname/_rest_/ds3_target/DS3Target/?operation=PAIR_BACK
HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

REGISTER DS3 TARGET

Description

Connect to and register the specified DS3 target as a replication target for the BlackPearl gateway.

Note: If a DS3 target has its instance identifier reset (see [Reset Instance Identifier on page 1133](#)) after it is registered on other BlackPearl gateways, the replication link is invalid and must be deleted and re-created.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/ds3_target/?admin_auth_id={string}&admin_
secret_key={string}&data_path_end_point={string}&name={string} [&access_control_
replication=NONE|USERS] [&data_path_https=TRUE|FALSE] [&data_path_port=
{32-bit integer}] [&data_path_proxy={string}] [&data_path_verify_
certificate=TRUE|FALSE] [&default_read_preference=MINIMUM_LATENCY|AFTER_ONLINE_
POOL|AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER] [&permit_going_
out_of_sync=TRUE|FALSE] [&replicated_user_default_data_policy={string}]
```

Request Parameters

Parameter	Description	Required
admin_auth_id	The S3 access ID assigned to an Administrator.	yes
admin_secret_key	The S3 secret key for the account matching the given admin_auth_id .	yes
data_path_end_point	The IPv4 address or DNS name for the data path of the DS3 target.	yes
name	The name for the DS3 target.	yes
access_control_replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> • NONE (default) — No access control is replicated. • USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway. 	no
data_path_https	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE (default), FALSE	no
data_path_port	The value of the port on which the DS3 target's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.	no
data_path_proxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.	no
data_path_verify_certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Do not set this to TRUE if the target gateway is using the default self-signed SSL certificate. Values: TRUE (default), FALSE	no
default_read_preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.	no

Parameter	Description	Required
permit_going_out_of_sync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time. Values: TRUE, FALSE (default)	no
replicated_user_default_data_policy	The data policy the target applies as the default data policy for any users replicated to the target. Default: no default data policy.	no

Responses

Response Elements

```

<Data>
  <AccessControlReplication>
    NONE|USERS
  </AccessControlReplication>
  <AdminAuthId>{string}</AdminAuthId>
  <AdminSecretKey>{string}</AdminSecretKey>
  <DataPathEndPoint>{string}</DataPathEndPoint>
  <DataPathHttps>TRUE|FALSE</DataPathHttps>
  <DataPathPort>{16-bit integer}</DataPathPort>
  <DataPathProxy>{string}</DataPathProxy>
  <DataPathVerifyCertificate>
    TRUE|FALSE
  </DataPathVerifyCertificate>
  <DefaultReadPreference>
    MINIMUM_LATENCY|AFTER_ONLINE_POOL|AFTER_NEARLINE_POOL
    |AFTER_NON_EJECTABLE_TAPE|LAST_RESORT|NEVER
  </DefaultReadPreference>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <PermitGoingOutOfSync>TRUE|FALSE</PermitGoingOutOfSync>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <ReplicatedUserDefaultDataPolicy>
    {string}
  </ReplicatedUserDefaultDataPolicy>
  <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessControl Replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> • NONE — No access control is replicated. • USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.
AdminAuthId	The S3 access ID assigned to an Administrator.
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .
DataPathEndPoint	The IPv4 address or DNS name for the data path of the DS3 target.
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE, FALSE
DataPathPort	The value of the port on which the DS3 target's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE
DefaultRead Preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Id	The UUID for the DS3 target instance. Note: If a DS3 target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.
Name	The name for the DS3 target.

Parameter	Description
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See <code>permit_going_out_of_sync</code> on page 533.
Quiesced	Whether the DS3 target is in a temporarily inactive state. Values: NO , PENDING , YES
ReplicatedUserDefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.
State	The state of the DS3 target. Values: ONLINE , OFFLINE , LIMITED_ACCESS

Example

Sample Request

This request registers a DS3 target with the data path end point 'DataPath', the Administrator S3 Access Id 'c381Y3RyYQ==', the Administrator S3 Secret Key 'd7pJBeAN', and the name 'TargetDS3' as a replication target for the BlackPearl gateway.

```
POST http[s]://blackpearl-hostname/_rest_/ds3_target/?admin_auth_id=c381Y3RyYQ==&admin_secret_key=d7pJBeAN&data_path_end_point=DataPath&name=TargetDS3 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <AccessControlReplication>NONE</AccessControlReplication>
  <AdminAuthId>c381Y3RyYQ==</AdminAuthId>
  <AdminSecretKey>d7pJBeAN</AdminSecretKey>
  <DataPathEndPoint>192.168.15.16</DataPathEndPoint>
  <DataPathHttps>TRUE</DataPathHttps>
  <DataPathPort/>
  <DataPathProxy/>
  <DataPathVerifyCertificate>TRUE</DataPathVerifyCertificate>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Id>c927287a-90eb-428e-88ae-faedc3749e17</Id>
  <Name>TargetBP</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <ReplicatedUserDefaultDataPolicy/>
  <State>ONLINE</State>
</Data>
```

VERIFY DS3 TARGET

Description

Verifies connectivity to the DS3 target and that the Administrator credentials are correct. If `full_details` is specified, the operation verifies that all data expected to reside on the target does in fact reside there.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/ds3_target/{BlackPearl target instance UUID,
name, or other unique attribute}?operation=VERIFY[&full_details]
```

To determine the UUID for a DS3 target instance, see [Get DS3 Targets on page 516](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is verify. Value: VERIFY	yes
full_details	If included, the operation verifies that all data expected to reside on the target does in fact reside there.	no

Responses

Response Elements

```
<Data>
  <AccessControlReplication>
    NONE|USERS
  </AccessControlReplication>
  <AdminAuthId>{string}</AdminAuthId>
  <AdminSecretKey>{string}</AdminSecretKey>
  <DataPathEndPoint>{string}</DataPathEndPoint>
  <DataPathHttps>TRUE|FALSE</DataPathHttps>
  <DataPathPort>{16-bit integer}</DataPathPort>
  <DataPathProxy>{string}</DataPathProxy>
```

```

<DataPathVerifyCertificate>
  TRUE | FALSE
</DataPathVerifyCertificate>
<DefaultReadPreference>
  MINIMUM_LATENCY | AFTER_ONLINE_POOL | AFTER_NEARLINE_POOL
  | AFTER_NON_EJECTABLE_TAPE | LAST_RESORT | NEVER
</DefaultReadPreference>
<Id>{string}</Id>
<Name>{string}</Name>
<PermitGoingOutOfSync>TRUE | FALSE</PermitGoingOutOfSync>
<Quiesced>NO | PENDING | YES</Quiesced>
<ReplicatedUserDefaultDataPolicy>
  {string}
</ReplicatedUserDefaultDataPolicy>
<State>ONLINE | OFFLINE | LIMITED_ACCESS</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AccessControl Replication	The access control that is replicated to the DS3 target. Values: <ul style="list-style-type: none"> • NONE — No access control is replicated. • USERS — The source BlackPearl gateway replicates its users and passwords to the target gateway.
AdminAuthId	The S3 access ID assigned to an Administrator.
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .
DataPathEndPoint	The IPv4 address or DNS name for the data path of the DS3 target.
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE , FALSE
DataPathPort	The value of the port on which the DS3 target's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the DS3 target.

Parameter	Description
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE, FALSE
DefaultRead Preference	When it is preferable to read from the DS3 target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Id	The UUID for the DS3 target instance. Note: If a DS3 target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.
Name	The name for the DS3 target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 533.
Quiesced	Whether the DS3 target is in a temporarily inactive state. Values: NO, PENDING, YES
ReplicatedUser DefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.
State	The state of the DS3 target. Values: ONLINE, OFFLINE, LIMITED_ACCESS

Example

Sample Request

This request confirms connectivity to the DS3 target and verifies the credentials of the administrator.

```
PUT http[s]://blackpearl-hostname/_rest_/ds3_target/DS3Target/?operation=VERIFY
HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AccessControlReplication>NONE</AccessControlReplication>
  <AdminAuthId>c381Y3RyYQ==</AdminAuthId>
  <AdminSecretKey>d7pJBeAN</AdminSecretKey>
  <DataPathEndPoint>192.168.108.108</DataPathEndPoint>
  <DataPathHttps>TRUE</DataPathHttps>
  <DataPathPort/>
  <DataPathProxy/>
  <DataPathVerifyCertificate>TRUE</DataPathVerifyCertificate>
  <DefaultReadPreference>MINIMUM_LATENCY</DefaultReadPreference>
  <Id>c927287a-90eb-428e-88ae-faedc3749e17</Id>
  <Name>DS3Target</Name>
  <PermitGoingOutOfSync>FALSE</PermitGoingOutOfSync>
  <Quiesced>NO</Quiesced>
  <ReplicatedUserDefaultDataPolicy/>
  <State>ONLINE</State>
</Data>
```

CHAPTER 13 - STORAGE DOMAIN OPERATIONS

A storage domain is a named collection of member data partitions and, when applicable, media type combinations. Storage domains define the possible places where data sent to the Spectra BlackPearl Nearline Gateway can be stored. Data persistence rules and data policies further define where and for how long specific data is stored.

Entire data partition/media type combinations are members of storage domains. When additional capacity is required, a single zpool or tape is allocated out of the members to fulfill the capacity requirement.

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CONVERT A STORAGE DOMAIN TO A BLACKPEARL TARGET

Description

Convert a storage domain to a BlackPearl target so that permanent persistence rules become permanent replication rules. This is used if data is initially written to multiple tape storage domains on different tape libraries connected to one BlackPearl gateway, and then one of the tape libraries is physically transferred to another site and connected to a different BlackPearl gateway. At least one permanent persistence rule must remain after the conversion.

Note: Once a storage domain is converted to a BlackPearl target, it cannot be converted back to a storage domain.

The process is as follows:

1. Discontinue data transfer operations to the original BlackPearl gateway.
2. Wait for all jobs to complete. (Confirm using [Get Active Jobs](#) on page 190.)
3. Make a database backup on the original BlackPearl gateway. See “Database Backup & Restore” in the *BlackPearl User Guide*.
4. Move the tape library to its new physical location and connect it to the second BlackPearl gateway (“BlackPearl #2”).
5. Power on BlackPearl #2.
6. Restore the database backup from [Step 3](#) onto BlackPearl #2.

**CAUTION**

Restoring the database from BlackPearl #1 to BlackPearl #2 deletes all of the data on BlackPearl #2. Only do this if BlackPearl #2 is newly installed and does not contain data.

7. Reset the instance id on BlackPearl #2. Restoring the database backup also restores the instance id so that BlackPearl #2 has the same id as BlackPearl #1. The instance id must be unique, so you need to reset the instance id for BlackPearl #2. See [Reset Instance Identifier](#) on page 1133.
8. Register BlackPearl #2 as a target on the original BlackPearl gateway (optionally, using pair-back) (See [Register DS3 Target](#) on page 531 and [Pair Back Registered DS3 Target](#) on page 528.)
9. Issue this command to convert the now-remote storage domain to a BlackPearl target on each BlackPearl gateway.
10. Unquiesce and activate each BlackPearl gateway. It does not matter which is done first. See [Modify Azure Target](#) on page 482.

Converting a storage domain to a BlackPearl target does the following.

1. The storage domain no longer exists on either BlackPearl gateway.
2. Any blobs stored in the tapes, pools, etc. for that storage domain are updated to be stored on the replication target.
3. Any permanent persistence rules targeting the storage domain are converted to permanent replication rules targeting the BlackPearl target.
4. Any temporary or retired persistence rules targeting the storage domain are deleted.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/storage_domain/{storage domain UUID, name, or other unique attribute}/?convert_to_ds3_target={string}/
```

To determine the UUID for a storage domain, see [Get Storage Domains on page 573](#).

Request Parameters

Parameter	Description	Required
convert_to_ds3_target	BlackPearl target UUID, name, or other unique attribute. Note: To determine the UUID for a BlackPearl target, see Get DS3 Targets on page 516 .	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request converts the storage domain with the name `sd1` to a BlackPearl target with the UUID `f36cb73e-d4e6-4cc4-9ac1-5f666e99eb3e`.

```
PUT http[s]://blackpearl-hostname/_rest_/storage_domain/sd1/?convert_to_ds3_target=f36cb73e-d4e6-4cc4-9ac1-5f666e99eb3e HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CREATE POOL STORAGE DOMAIN MEMBER

Description

Adds the specified pool partition as a member of the specified storage domain.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/storage_domain_member/?pool_partition_id={string}&storage_domain_id={string} [&write_preference=HIGH|NORMAL|LOW|NEVER_SELECT]
```

Request Parameters

Parameter	Description	Required
pool_partition_id	Pool partition UUID, name, or other unique attribute. To determine the UUID for a pool partition, see Get Pool Partitions on page 633 .	yes
storage_domain_id	Storage domain UUID, name, or other unique attribute. To determine the UUID for a storage domain, see Get Storage Domains on page 573 .	yes
write_preference	Determines the preferred usage of the pool partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH <code>write_preference</code> before a partition with a NORMAL <code>write_preference</code> , and so on. Use NEVER_SELECT to indicate that the partition is read-only. Values: HIGH , NORMAL (default), LOW , NEVER_SELECT	no

Responses

Response Elements

```

<Data>
  <AutoCompactionThreshold>
    {32-bit integer}
  </AutoCompactionThreshold>
  <Id>{string}</Id>
  <PoolPartitionId>{string}</PoolPartitionId>
  <State>NORMAL|EXCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <TapePartitionId>{string}</TapePartitionId>
  <TapeType/>
  <WritePreference>
    HIGH|NORMAL|LOW|NEVER_SELECT
  </WritePreference>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AutoCompaction Threshold	This does not apply for pools.
Id	The UUID for the pool storage domain member.
PoolPartitionId	The UUID for the pool partition.
State	The state of the pool partition member. Values: <ul style="list-style-type: none"> • NORMAL — The storage domain member is included normally. • EXCLUSION_IN_PROGRESS — The storage domain member is in the process of being excluded (data that resides on it is being copied to other storage domain members).
StorageDomainId	The UUID for the storage domain to which the pool partition member was assigned.
TapePartitionId	Always null for this operation.
TapeType	Always null for this operation.

Parameter	Description
WritePreference	The preferred usage of the pool partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH write_preference before a partition with a NORMAL write_preference, and so on. A value of NEVER_SELECT indicates that the partition is read-only. Values: HIGH, NORMAL, LOW, NEVER_SELECT

Example

Sample Request

This request creates a pool storage domain member for the pool partition with the UUID a541c709-cceb-4d86-a23c-1998858ae854 in the storage domain with the UUID 9b186102-c116-496f-a6a3-fb392c0060b6.

```
POST http[s]://blackpearl-hostname/_rest_/storage_domain_member/?pool_partition_id=a541c709-cceb-4d86-a23c-1998858ae854&storage_domain_id=9b186102-c116-496f-a6a3-fb392c0060b6} HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <Id>c2d066b1-2563-4db9-a452-f681d57110c6</Id>
  <PoolPartitionId>
    a541c709-cceb-4d86-a23c-1998858ae854
  </PoolPartitionId>
  <State>NORMAL</State>
  <StorageDomainId>
    9b186102-c116-496f-a6a3-fb392c0060b6
  </StorageDomainId>
  <TapePartitionId/>
  <TapeType/>
  <WritePreference>HIGH</WritePreference>
</Data>
```

CREATE STORAGE DOMAIN

Description

Create a storage domain.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/storage_domain/?name={string} [&auto_eject_
media_full_threshold={64-bit integer}] [&auto_eject_upon_cron={string}] [&auto_eject_
upon_job_cancellation=TRUE|FALSE] [&auto_eject_upon_job_completion=TRUE|FALSE] [&auto_
eject_upon_media_full=TRUE|FALSE] [&ltfs_file_naming=OBJECT_NAME|OBJECT_ID] [&max_
tape_fragmentation_percent={32-bit integer}] [&maximum_auto_verification_frequency_
in_days={32-bit integer}] [&media_ejection_allowed=TRUE|FALSE] [&secure_media_
allocation=TRUE|FALSE] [&verify_prior_to_auto_
eject=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND] [&write_
optimization=CAPACITY|PERFORMANCE]
```

Request Parameters

Parameter	Description	Required
name	The name for the storage domain.	yes
auto_eject_ media_full_ threshold	The minimum available capacity (in bytes) at which media is not considered full and eligible for auto-eject. If not configured, the auto-eject threshold is computed based on the preferred chunk size.	no
auto_eject_upon_ cron	A CRON expression to indicate when to auto eject tape cartridges. If set, a CRON job is created based on the CRON string specified. Once the CRON job is executed, all tape cartridges assigned to the storage domain, not already pending ejection are queued for ejection. Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code> .	no
auto_eject_upon_ job_cancellation	Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code> . Values: TRUE , FALSE (default)	no

Parameter	Description	Required
auto_eject_upon_job_completion	<p>Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes.</p> <p>Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code>.</p> <p>Values: TRUE, FALSE (default)</p>	no
auto_eject_upon_media_full	<p>Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>auto_eject_media_full_threshold</code>.</p> <p>Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code>.</p> <p>Values: TRUE, FALSE (default)</p>	no

Parameter	Description	Required
ltfs_file_naming	<p>Determines the LTFS file naming mode used on tapes in the storage domain. Values:</p> <ul style="list-style-type: none"> • Object Name – LTFS file names use the format <i>{bucket name}/{object name}</i>, for example <i>bucket1/video1.mov</i>. Object names must comply with LTFS file naming rules. If the tapes are ejected from the BlackPearl gateway and loaded into a non-BlackPearl tape partition, the file names match the object names. <p>Notes:</p> <ul style="list-style-type: none"> • The colon character (:) is not allowed in LTFS file names and therefore not allowed in BlackPearl object names. The slash character (/) is also technically not allowed in LTFS file names; however, the BlackPearl software can accommodate a slash in the object name and translates it as a directory in the LTFS file system (for example <i>directory1/directory2/video1.mov</i>). • Spectra Logic does not recommend the following characters in LTFS file names or BlackPearl object names for reasons of cross-platform compatibility: control characters such as carriage return (CR) and line feed (LF), double quotation mark (“), asterisk (*), question mark (?), less than sign (<), greater than sign (>), backslash (\), forward slash (/) vertical line (). • Object ID – LTFS file names use the format <i>{bucket name}/{object id}</i>, for example <i>bucket1/1fc6f09c-dd72-41ea-8043-0491ab8a6d82</i>. Object names do not need to comply with LTFS file naming rules. The BlackPearl gateway saves object names as LTFS extended attributes allowing any third party application to reconstruct all the data including the object names. 	no
max_tape_fragmentation_percent	Obsolete parameter.	no
maximum_auto_verification_frequency_in_days	The number of days since the last data modification before an unverified piece of media is scheduled for auto verification. Default: null (data will never be verified)	no

Parameter	Description	Required
media_ejection_allowed	Whether the storage domain or a piece of media assigned to the storage domain, can be ejected from the BlackPearl gateway without generating a failure. Values: TRUE (default), FALSE	no
secure_media_allocation	Whether media must remain within the storage domain. Note: <code>secure_media_allocation</code> should only be set to TRUE when, for compliance purposes, the user must be certain which media ever contained any data for the storage domain (usually, to physically destroy the media once the data is no longer needed), or to force rotating through media when new backups are created and old backups are deleted. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE (default) — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted. 	no
verify_prior_to_auto_eject	The priority for verifying tapes being ejected automatically due to any of the auto-eject triggers. The priority is null if verification is not required prior to ejection. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	no
write_optimization	Specifies whether job chunks are written as quickly as possible or across as few pieces of media as possible. For example, when PERFORMANCE mode is set for a tape partition, job chunks are written as quickly as possible, using all tape drive resources, even if that means that more tapes are allocated to the storage domain than are necessary to write the data. It is better to use CAPACITY mode if the tapes will be ejected after the job completes or if the storage domain is written to very rarely and capacity in the library is of concern. PERFORMANCE mode is recommended for tape partitions in all other cases. Storage domains for pool partitions should generally have a CAPACITY write optimization because pools are very fast and under less contention. It is rare for a pool storage domain to benefit from PERFORMANCE mode. Values: CAPACITY (default), PERFORMANCE	no

Responses

Response Elements

```

<Data>
  <AutoEjectMediaFullThreshold>
    {64-bit integer}
  </AutoEjectMediaFullThreshold>
  <AutoEjectUponCron>{string}</AutoEjectUponCron>
  <AutoEjectUponJobCancellation>
    TRUE | FALSE
  </AutoEjectUponJobCancellation>
  <AutoEjectUponJobCompletion>
    TRUE | FALSE
  </AutoEjectUponJobCompletion>
  <AutoEjectUponMediaFull>
    TRUE | FALSE
  </AutoEjectUponMediaFull>
  <Id>{string}</Id>
  <LtfsFileNaming>OBJECT_ID|OBJECT_NAME</LtfsFileNaming>
  <MaxTapeFragmentationPercent>
    {32-bit integer}
  </MaxTapeFragmentationPercent>
  <MaximumAutoVerificationFrequencyInDays>
    {32-bit integer}
  </MaximumAutoVerificationFrequencyInDays>
  <MediaEjectionAllowed>
    TRUE | FALSE
  </MediaEjectionAllowed>
  <Name>{string}</Name>
  <SecureMediaAllocation>TRUE | FALSE</SecureMediaAllocation>
  <VerifyPriorToAutoEject>
    CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
  </VerifyPriorToAutoEject>
  <WriteOptimization>CAPACITY | PERFORMANCE</WriteOptimization>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
AutoEjectMedia FullThreshold	The minimum available capacity (in bytes) at which media is not considered full and eligible for auto-eject.
AutoEjectUpon Cron	The CRON expression that indicate when to auto eject tape cartridges. If set, a CRON job is created based on the CRON string specified. Once the CRON job is executed, all tape cartridges assigned to the storage domain, not already pending ejection are queued for ejection.
AutoEjectUponJobCancellation	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Values: TRUE, FALSE
AutoEjectUponJobCompletion	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes. Values: TRUE, FALSE
AutoEjectUpon MediaFull	Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>AutoEjectMediaFullThreshold</code> . Values: TRUE, FALSE
Id	The UUID for the storage domain.
LtfsFileNaming	The LTFS file naming mode used on tapes in the storage domain. Values: OBJECT_ID, OBJECT_NAME . See ltfs_file_naming on page 548 for descriptions.
MaxTape Fragmentation Percent	Obsolete parameter.
MaximumAuto Verification FrequencyInDays	The number of days since the last verification when a piece of unchanged media is not considered for verification.
Name	The name of the storage domain.

Parameter	Description
SecureMedia Allocation	Whether media must remain within the storage domain. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted.
VerifyPriorToAuto Eject	The priority for verifying tapes being ejected automatically due to any of the auto-eject triggers. The priority is null if verification is not required prior to ejection. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteOptimization	Whether job chunks are written as quickly as possible (PERFORMANCE) or across as few pieces of media as possible (CAPACITY). Values: CAPACITY, PERFORMANCE

Example

Sample Request

This request creates a storage domain with the name “sd1” that uses all storage domain defaults.

```
POST http://blackpearl-hostname/_rest_/storage_domain/?name=sd1 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AutoEjectMediaFullThreshold/>
  <AutoEjectUponCron/>
  <AutoEjectUponJobCancellation>
    FALSE
  </AutoEjectUponJobCancellation>
  <AutoEjectUponJobCompletion>FALSE</AutoEjectUponJobCompletion>
  <AutoEjectUponMediaFull>FALSE</AutoEjectUponMediaFull>
  <Id>3d306463-8fbc-4bb5-9d0d-98c2cb9e8aa2</Id>
  <LtfsFileNaming>OBJECT_ID</LtfsFileNaming>
  <MaxTapeFragmentationPercent/>
  <MaximumAutoVerificationFrequencyInDays>
    365
  </MaximumAutoVerificationFrequencyInDays>
```

```

<MediaEjectionAllowed>TRUE</MediaEjectionAllowed>
<Name>sd1</Name>
<SecureMediaAllocation>FALSE</SecureMediaAllocation>
</VerifyPriorToAutoEject>
<WriteOptimization>CAPACITY</WriteOptimization>
</Data>

```

CREATE TAPE STORAGE DOMAIN MEMBER

Description

Adds the specified tape partition as a member of the specified storage domain.

Requests

Syntax

```

POST http[s]://{datapathDNSname}/_rest_/storage_domain_member/?storage_domain_id=
{string}&tape_partition_id={string}&tape_type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_
CLEANING_TAPE|TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_
TAPE|UNKNOWN|FORBIDDEN[&auto_compaction_threshold={32-bit integer}][&write_
preference=HIGH|NORMAL|LOW|NEVER_SELECT]

```

Request Parameters

Parameter	Description	Required
storage_domain_id	Storage domain UUID, name, or other unique attribute. To determine the UUID for a storage domain, see Get Storage Domains on page 573 .	yes
tape_partition_id	Tape partition UUID, name, or other unique attribute. To determine the UUID for a tape partition, see Get Tape Partitions on page 765 .	yes
tape_type	The tape media type. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	yes

Parameter	Description	Required
auto_compaction_threshold	The percentage of a tape with deleted objects at which auto compaction is triggered. The default is 95. The minimum is 10.	no
write_preference	Determines the preferred usage of the tape partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH write_preference before a partition with a NORMAL write_preference, and so on. Use NEVER_SELECT to indicate that the partition is read-only. Values: HIGH , NORMAL (default), LOW , NEVER_SELECT	no

Responses

Response Elements

```

<Data>
  <AutoCompactionThreshold>
    {32-bit integer}
  </AutoCompactionThreshold>
  <Id>{string}</Id>
  <PoolPartitionId/>
  <State>NORMAL|EXCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <TapePartitionId>{string}</TapePartitionId>
  <TapeType>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
  </TapeType>
  <WritePreference>
    HIGH|NORMAL|LOW|NEVER_SELECT
  </WritePreference>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
AutoCompactionThreshold	The percentage of a tape with deleted objects at which auto compaction is triggered.
Id	The UUID for the tape storage domain member.
PoolPartitionId	Always null for this operation.
State	The state of the tape partition member. Values: <ul style="list-style-type: none"> • NORMAL — The storage domain member is included normally. • EXCLUSION_IN_PROGRESS — The storage domain member is in the process of being excluded (data that resides on it is being copied to other storage domain members).
StorageDomainId	The UUID for the storage domain to which the tape partition member was assigned.
TapePartitionId	The UUID for the tape partition.
TapeType	The type of tape used by this tape storage domain member. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
WritePreference	The preferred usage of the tape partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH write_preference before a partition with a NORMAL write_preference, and so on. A value of NEVER_SELECT indicates that the partition is read-only. Values: HIGH, NORMAL, LOW, NEVER_SELECT

Example

Sample Request

This request creates a tape storage domain member for the tape partition with the UUID 8fff1c7e-8a3e-4e00-8b16-8585b130300f, using LTO-5 tape cartridges, in the storage domain with the UUID a3f0888c-9d0c-455c-ae8c-050970c2dab9.

```
POST http[s]://blackpearl-hostname/_rest_/storage_domain_member/?storage_domain_id=a3f0888c-9d0c-455c-ae8c-050970c2dab9&tape_partition_id=8fff1c7e-8a3e-4e00-8b16-8585b130300f&tape_type=LTO5 HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <Id>d9a2f5c6-19b8-4818-9b89-495190a4b0f3</Id>
  <PoolPartitionId/>
  <State>NORMAL</State>
  <StorageDomainId>
    a3f0888c-9d0c-455c-ae8c-050970c2dab9
  </StorageDomainId>
  <TapePartitionId>
    8fff1c7e-8a3e-4e00-8b16-8585b130300f
  </TapePartitionId>
  <TapeType>LTO5</TapeType>
  <WritePreference>HIGH</WritePreference>
</Data>
```

DELETE STORAGE DOMAIN

Description

Deletes the specified storage domain. All media assigned to the storage domain are reclaimed.

Note: A storage domain cannot be deleted if there are any persistence rules referring to it, or if the storage domain is being used by a data policy.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/storage_domain/{storage domain UUID, name,
or other unique attribute}/
```

To determine the UUID for a storage domain, see [Get Storage Domains on page 573](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the storage domain with the name “sd1”.

```
DELETE http[s]://blackpearl-hostname/_rest_/storage_domain/sd1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE STORAGE DOMAIN FAILURE

Description

Deletes the specified storage domain failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/storage_domain_failure/{storage domain failure UUID or other unique attribute}/
```

To determine the UUID for a storage domain failure, see [Get Storage Domain Failures on page 563](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the storage domain failure with the UUID c6e057a9-b060-4367-b2be-7516eb4bffb4.

```
DELETE http[s]://blackpearl-hostname/_rest_/storage_domain_failure/c6e057a9-b060-4367-b2be-7516eb4bffb4/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE STORAGE DOMAIN MEMBER

Description

Deletes the specified storage domain member.

Note: You can delete storage domain members if any of the following are true:

- One or more resource (a tape or pool) is allocated to the storage domain member.
- The storage domain member is the last remaining storage domain member with a `write_preference` other than **NEVER_SELECT**, assigned to a storage domain in use by a persistence rule.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/storage_domain_member/{storage domain member UUID or other unique attribute}/
```

To determine the UUID for a storage domain member, see [Get Storage Domain Members](#) on page 569.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 403: Access Denied
- 404: Not Found

Example

Sample Request

This request deletes the storage domain member with the UUID 6aaf58ad-c3f9-4f8a-aeefa-11fd91640b7b.

```
DELETE http[s]://blackpearl-hostname/_rest_/storage_domain_member/6aaf58ad-c3f9-4f8a-aeefa-11fd91640b7b/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET STORAGE DOMAIN

Description

Get information about the specified storage domain.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/storage_domain/{storage domain UUID, name, or other unique attribute}/
```

To determine the UUID for a storage domain, see [Get Storage Domains on page 573](#).

Responses

Response Elements

```
<Data>
  <AutoEjectMediaFullThreshold>
    {64-bit integer}
  </AutoEjectMediaFullThreshold>
  <AutoEjectUponCron>{string}</AutoEjectUponCron>
  <AutoEjectUponJobCancellation>
    TRUE | FALSE
  </AutoEjectUponJobCancellation>
  <AutoEjectUponJobCompletion>
    TRUE | FALSE
  </AutoEjectUponJobCompletion>
  <AutoEjectUponMediaFull>
    TRUE | FALSE
  </AutoEjectUponMediaFull>
  <Id>{string}</Id>
  <LtfsFileNaming>OBJECT_ID|OBJECT_NAME</LtfsFileNaming>
  <MaxTapeFragmentationPercent>
    {32-bit integer}
  </MaxTapeFragmentationPercent>
  <MaximumAutoVerificationFrequencyInDays>
    {32-bit integer}
  </MaximumAutoVerificationFrequencyInDays>
  <MediaEjectionAllowed>
    TRUE | FALSE
  </MediaEjectionAllowed>
  <Name>{string}</Name>
  <SecureMediaAllocation>TRUE | FALSE</SecureMediaAllocation>
  <VerifyPriorToAutoEject>
    CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
  </VerifyPriorToAutoEject>
  <WriteOptimization>CAPACITY | PERFORMANCE</WriteOptimization>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AutoEjectMedia FullThreshold	The minimum available capacity (in bytes) at which media is not considered full and eligible for auto-eject.
AutoEjectUpon Cron	The CRON expression that indicate when to auto eject tape cartridges. If set, a CRON job is created based on the CRON string specified. Once the CRON job is executed, all tape cartridges assigned to the storage domain, not already pending ejection are queued for ejection.
AutoEjectUponJobCancellation	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Values: TRUE, FALSE
AutoEjectUponJobCompletion	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes. Values: TRUE, FALSE
AutoEjectUpon MediaFull	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>AutoEjectMediaFullThreshold</code> . Values: TRUE, FALSE
Id	The UUID for the storage domain.
LtfsFileNaming	The LTFS file naming mode used on tapes in the storage domain. Values: OBJECT_ID, OBJECT_NAME . See ltfs_file_naming on page 548 for descriptions.
MaxTape Fragmentation Percent	Obsolete parameter.
MaximumAuto Verification FrequencyInDays	The number of days since the last verification when a piece of unchanged media is not considered for verification.

Parameter	Description
SecureMedia Allocation	Whether media must remain within the storage domain. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted.
VerifyPriorToAuto Eject	The priority for verifying tapes being ejected automatically due to any of the auto-eject triggers. The priority is null if verification is not required prior to ejection. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteOptimization	Whether job chunks are written as quickly as possible (PERFORMANCE) or across as few pieces of media as possible (CAPACITY). Values: CAPACITY, PERFORMANCE

Example

Sample Request

This request gets information about the storage domain with the name “sd1”.

```
GET http://blackpearl-hostname/_rest_/storage_domain/sd1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AutoEjectMediaFullThreshold/>
  <AutoEjectUponCron/>
  <AutoEjectUponJobCancellation>
    FALSE
  </AutoEjectUponJobCancellation>
  <AutoEjectUponJobCompletion>FALSE</AutoEjectUponJobCompletion>
  <AutoEjectUponMediaFull>FALSE</AutoEjectUponMediaFull>
  <Id>30313cfa-f8b2-4093-830c-3c8d06db6f6b</Id>
  <LtfsFileNaming>OBJECT_ID</LtfsFileNaming>
  <MaxTapeFragmentationPercent/>
  <MaximumAutoVerificationFrequencyInDays>
    365
  </MaximumAutoVerificationFrequencyInDays>
  <MediaEjectionAllowed>TRUE</MediaEjectionAllowed>
  <Name>sd1</Name>
  <SecureMediaAllocation>FALSE</SecureMediaAllocation>
  <VerifyPriorToAutoEject/>
  <WriteOptimization>CAPACITY</WriteOptimization>
</Data>
```

GET STORAGE DOMAIN FAILURES

Description

Get information about all storage domain failures, such as not having enough media to allocate to the storage domain to complete a PUT job. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/storage_domain_failure/[?error_message=
{string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&storage_domain_id={string}][&type=ILLEGAL_EJECTION_
OCCURRED|LAST_FREE_MEDIA_ALLOCATED|MEMBER_BECAME_READ_ONLY|WRITES_STALLED_DUE_TO_NO_
FREE_MEDIA_REMAINING]
```

Request Parameters

Parameter	Description	Required
error_message	The text of the error message.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of storage domain failures to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first storage domain failure to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
storage_domain_id	Storage domain UUID, name, or other unique attribute. To determine the UUID for a storage domain, see Get Storage Domains on page 573 .	no
type	The type of tape error message. Values: ILLEGAL_EJECTION_OCCURRED , LAST_FREE_MEDIA_ALLOCATED , MEMBER_BECAME_READ_ONLY , WRITES_STALLED_DUE_TO_NO_FREE_MEDIA_REMAINING	no

Responses

Response Elements

```

<Data>
  <StorageDomainFailure>
    <Date>YYYY-MM-DDThh:mm:ss.xxxZ</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <StorageDomainId>{string}</StorageDomainId>
    <Type>
      ILLEGAL_EJECTION_OCCURRED|LAST_FREE_MEDIA_ALLOCATED|
      MEMBER_BECAME_READ_ONLY|
      WRITES_STALLED_DUE_TO_NO_FREE_MEDIA_REMAINING
    </Type>
  </StorageDomainFailure>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
StorageDomainFailure	The container for information about one storage domain failure.
Date	The date and time the error occurred in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i>
ErrorMessage	A description of the error.
Id	The UUID for the error message.
StorageDomainId	The UUID for the storage domain that had the failure.
Type	The type of tape error message. Values: ILLEGAL_EJECTION_OCCURRED , LAST_FREE_MEDIA_ALLOCATED , MEMBER_BECAME_READ_ONLY , WRITES_STALLED_DUE_TO_NO_FREE_MEDIA_REMAINING

Example

Sample Request

This request gets information about all storage domain failures.

```
GET http://blackpearl-hostname/_rest_/storage_domain_failure/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <StorageDomainFailure>
    <Date>2016-05-17T14:18:01.000Z</Date>
    <ErrorMessage>{error text}</ErrorMessage>
    <Id>4b4aebcd-a5e7-4157-8de1-7598f01b9ed9</Id>
    <StorageDomainId>
      d479e099-6cf7-4f92-9add-1122b7467769
    </StorageDomainId>
    <Type>ILLEGAL_EJECTION_OCCURRED</Type>
  </StorageDomainFailure>
  ...
</Data>
```

GET STORAGE DOMAIN MEMBER

Description

Get information about the specified storage domain member.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/storage_domain_member/{storage domain member
UUID or other unique attribute}/
```

To determine the UUID for a storage domain member, see [Get Storage Domain Members on page 569](#).

Responses

Response Elements

```

<Data>
  <AutoCompactionThreshold>
    {32-bit integer}
  </AutoCompactionThreshold>
  <Id>{string}</Id>
  <PoolPartitionId>{string}</PoolPartitionId>
  <State>NORMAL|EXCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <TapePartitionId>{string}</TapePartitionId>
  <TapeType>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
  </TapeType>
  <WritePreference>
    HIGH|NORMAL|LOW|NEVER_SELECT
  </WritePreference>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AutoCompaction Threshold	The percentage of a tape with deleted objects at which auto compaction is triggered.
Id	The UUID for the storage domain member.
PoolPartitionId	The UUID for the pool partition.
State	The state of the pool partition member. Values: <ul style="list-style-type: none"> • NORMAL — The storage domain member is included normally. • EXCLUSION_IN_PROGRESS — The storage domain member is in the process of being excluded (data that resides on it is being copied to other storage domain members).
StorageDomainId	The UUID for the storage domain to which the pool partition or tape partition is a member.

Parameter	Description
TapePartitionId	The UUID for the tape partition.
TapeType	The type of tape used by this tape storage domain member. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
WritePreference	The preferred usage of the pool partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH write_preference before a partition with a NORMAL write_preference, and so on. A value of NEVER_SELECT indicates that the partition is read-only. Values: HIGH, NORMAL, LOW, NEVER_SELECT

Example

Sample Request

This request gets information about the pool partition storage domain member with the UUID 447a0e5c-ce75-43b4-ac43-a0f47bd9581b.

```
GET http://blackpearl-hostname/_rest_/storage_domain_member/447a0e5c-ce75-43b4-ac43-a0f47bd9581b/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AutoCompactionThreshold>20</AutoCompactionThreshold>
  <Id>447a0e5c-ce75-43b4-ac43-a0f47bd9581b</Id>
  <PoolPartitionId>
    70effe58-0fdc-43a8-8d3e-9a3ef438388e
  </PoolPartitionId>
  <State>NORMAL</State>
  <StorageDomainId>
    b52ce963-aa09-4b21-b104-7be3060fdbb1
  </StorageDomainId>
  <TapePartitionId/>
  <TapeType/>
  <WritePreference>NORMAL</WritePreference>
</Data>
```

GET STORAGE DOMAIN MEMBERS

Description

Get information about all storage domain members. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/storage_domain_member/[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&pool_partition_id={string}][&state={NORMAL|EXCLUSION_IN_PROGRESS}][&storage_domain_id={string}][&tape_partition_id={string}][&tape_type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN][&write_preference=HIGH|NORMAL|LOW|NEVER_SELECT]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of storage domain members to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first storage domain member to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
pool_partition_id	The UUID for the pool partition assigned as a member.	no

Parameter	Description	Required
state	The state of the storage domain member. Values: <ul style="list-style-type: none"> NORMAL — List storage domain members in Normal state. EXCLUSION_IN_PROGRESS — List storage domain members in the process of being excluded (data that resides on it is being copied to other storage domain members). 	no
storage_domain_id	The UUID for the storage domain to which the storage domain member is assigned.	no
tape_partition_id	Tape partition UUID, name, or other unique attribute.	no
tape_type	The tape media type. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	no
write_preference	The preferred usage of the tape partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH <code>write_preference</code> before a partition with a NORMAL <code>write_preference</code> , and so on. A value of NEVER_SELECT indicates that the partition is read-only. Values: HIGH, NORMAL, LOW, NEVER_SELECT	no

Responses

Response Elements

```
<Data>
  <StorageDomainMember>
    <Id>{string}</Id>
    <PoolPartitionId>{string}</PoolPartitionId>
    <State>NORMAL|EXCLUSION_IN_PROGRESS</State>
    <StorageDomainId>{string}</StorageDomainId>
    <TapePartitionId>{string}</TapePartitionId>
```

```

<TapeType>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC
  |TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|
  TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN
</TapeType>
<WritePreference>
  HIGH|NORMAL|LOW|NEVER_SELECT
</WritePreference>
</StorageDomainMember>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AutoCompaction Threshold	The percentage of a tape with deleted objects at which auto compaction is triggered.
StorageDomain Member	The container for information about one storage domain member.
Id	The UUID for the storage domain member.
PoolPartitionId	The UUID for the pool partition.
StorageDomainId	The UUID for the storage domain to which the pool partition or tape partition is a member.
State	The state of the pool partition member. Values: <ul style="list-style-type: none"> • NORMAL — The storage domain member is included normally. • EXCLUSION_IN_PROGRESS — The storage domain member is in the process of being excluded (data that resides on it is being copied to other storage domain members).
TapePartitionId	The UUID for the tape partition.
TapeType	The type of tape used by this tape storage domain member. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN

Parameter	Description
WritePreference	The preferred usage of the pool partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH write_preference before a partition with a NORMAL write_preference, and so on. A value of NEVER_SELECT indicates that the partition is read-only. Values: HIGH, NORMAL, LOW, NEVER_SELECT

Example

Sample Request

This request gets information about all storage domain members on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/storage_domain_member/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<StorageDomainMember>
  <AutoCompactionThreshold>20</AutoCompactionThreshold>
  <Id>c3e680ac-8426-4424-bdcc-e5a6b0d66638</Id>
  <PoolPartitionId>
    f58631f4-db97-4686-850f-5db17d509625
  </PoolPartitionId>
  <State>NORMAL</State>
  <StorageDomainId>
    aca7aecf-5bf6-4b03-bb7d-996df3963f39
  </StorageDomainId>
  <TapePartitionId/>
  <TapeType/>
  <WritePreference>NORMAL</WritePreference>
</StorageDomainMember>
<StorageDomainMember>
  <AutoCompactionThreshold>20</AutoCompactionThreshold>
  <Id>d9a2f5c6-19b8-4818-9b89-495190a4b0f3</Id>
  <PoolPartitionId/>
  <State>NORMAL</State>
  <StorageDomainId>
    a3f0888c-9d0c-455c-ae8c-050970c2dab9
  </StorageDomainId>
```



```

    <TapePartitionId>
      8fff1c7e-8a3e-4e00-8b16-8585b130300f
    </TapePartitionId>
    <TapeType>LT05</TapeType>
    <WritePreference>HIGH</WritePreference>
  </StorageDomainMember>
</Data>

```

GET STORAGE DOMAINS

Description

Get information about all storage domains. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/storage_domain/[?auto_eject_upon_cron=
{string}][&auto_eject_upon_job_cancellation=TRUE|FALSE][&auto_eject_upon_job_
completion=TRUE|FALSE][&auto_eject_upon_media_full=TRUE|FALSE][&last_page][&media_
ejection_allowed=TRUE|FALSE][&name={string}][&page_length={32-bit integer}][&page_
offset={32-bit integer}][&page_start_marker={string}][&secure_media_
allocation=TRUE|FALSE][&write_optimization=CAPACITY|PERFORMRANCE]

```

Request Parameters

Parameter	Description	Required
auto_eject_upon_cron	A CRON expression to indicate when to auto eject tape cartridges.	no
auto_eject_upon_job_cancellation	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Values: TRUE , FALSE (default)	no

Parameter	Description	Required
auto_eject_upon_job_completion	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes. Values: TRUE , FALSE (default)	no
auto_eject_upon_media_full	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>auto_eject_media_full_threshold</code> . Values: TRUE , FALSE (default)	no
last_page	If included, only the last page of results is returned.	no
media_ejection_allowed	Whether the storage domain or a piece of media assigned to the storage domain, can be ejected from the BlackPearl gateway without generating a failure. Values: TRUE (default), FALSE	no
name	The name for the storage domain.	no
page_length	The maximum number of storage domains to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first storage domain to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
secure_media_allocation	Whether media must remain within the storage domain. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE (default) — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted. 	no

Parameter	Description	Required
write_optimization	Whether job chunks are written as quickly as possible or across as few pieces of media as possible. For example, when PERFORMANCE mode is set for a tape partition, job chunks are written as quickly as possible, using all tape drive resources, even if that means that more tapes are allocated to the storage domain than are necessary to write the data. Values: CAPACITY (default), PERFORMANCE	no

Responses

Response Elements

```

<Data>
  <StorageDomain>
    <AutoEjectMediaFullThreshold>
      {64-bit integer}
    </AutoEjectMediaFullThreshold>
    <AutoEjectUponCron>{string}</AutoEjectUponCron>
    <AutoEjectUponJobCancellation>
      TRUE | FALSE
    </AutoEjectUponJobCancellation>
    <AutoEjectUponJobCompletion>
      TRUE | FALSE
    </AutoEjectUponJobCompletion>
    <AutoEjectUponMediaFull>
      TRUE | FALSE
    </AutoEjectUponMediaFull>
    <Id>{string}</Id>
    <LtfsFileNaming>OBJECT_ID|OBJECT_NAME</LtfsFileNaming>
    <MaxTapeFragmentationPercent>
      {32-bit integer}
    </MaxTapeFragmentationPercent>
    <MaximumAutoVerificationFrequencyInDays>
      {32-bit integer}
    </MaximumAutoVerificationFrequencyInDays>
    <MediaEjectionAllowed>
      TRUE | FALSE
    </MediaEjectionAllowed>
    <Name>{string}</Name>

```

```

    <SecureMediaAllocation>TRUE|FALSE</SecureMediaAllocation>
    <VerifyPriorToAutoEject>
      CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
    </VerifyPriorToAutoEject>
    <WriteOptimization>CAPACITY|PERFORMANCE</WriteOptimization>
  </StorageDomain>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
StorageDomain	The container for information about one storage domain.
AutoEjectMedia FullThreshold	The minimum available capacity (in bytes) at which media is not considered full and eligible for auto-eject.
AutoEjectUpon Cron	The CRON expression that indicate when to auto eject tape cartridges. If set, a CRON job is created based on the CRON string specified. Once the CRON job is executed, all tape cartridges assigned to the storage domain, not already pending ejection are queued for ejection.
AutoEjectUponJobCancellation	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Values: TRUE, FALSE
AutoEjectUponJobCompletion	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes. Values: TRUE, FALSE
AutoEjectUpon MediaFull	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>AutoEjectMediaFullThreshold</code> . Values: TRUE, FALSE
Id	The UUID for the storage domain.
LtfsFileNaming	The LTFS file naming mode used on tapes in the storage domain. Values: OBJECT_ID, OBJECT_NAME . See ltfs_file_naming on page 548 for descriptions.

Parameter	Description
MaxTape Fragmentation Percent	Obsolete parameter.
MaximumAuto Verification FrequencyInDays	The number of days since the last verification when a piece of unchanged media is not considered for verification.
Name	The name of the storage domain.
SecureMedia Allocation	Whether media must remain within the storage domain. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted.
VerifyPriorToAuto Eject	The priority for verifying tapes being ejected automatically due to any of the auto-eject triggers. The priority is null if verification is not required prior to ejection. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteOptimization	Whether job chunks are written as quickly as possible (PERFORMANCE) or across as few pieces of media as possible (CAPACITY). Values: CAPACITY, PERFORMANCE

Example

Sample Request

This request gets information about all storage domains on the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/storage_domain/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```

  <StorageDomain>
    <AutoEjectMediaFullThreshold/>
    <AutoEjectUponCron/>
    <AutoEjectUponJobCancellation>
      FALSE
    </AutoEjectUponJobCancellation>

```

```

    <AutoEjectUponJobCompletion>
      FALSE
    </AutoEjectUponJobCompletion>
    <AutoEjectUponMediaFull>FALSE</AutoEjectUponMediaFull>
    <Id>b5ef719c-a455-4527-a7b6-6a4780c3f67f</Id>
    <LtfsFileNaming>OBJECT_ID</LtfsFileNaming>
    <MaxTapeFragmentationPercent/>
    <MaximumAutoVerificationFrequencyInDays/>
    <MediaEjectionAllowed>TRUE</MediaEjectionAllowed>
    <Name>sd1</Name>
    <SecureMediaAllocation>FALSE</SecureMediaAllocation>
    </VerifyPriorToAutoEject>
    <WriteOptimization>CAPACITY</WriteOptimization>
  </StorageDomain>
  ...
</Data>

```

MODIFY STORAGE DOMAIN

Description

Modify a storage domain.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/storage_domain/{storage domain UUID, name, or
other unique attribute}/[?auto_eject_media_full_threshold={64-bit integer}][&auto_
eject_upon_cron={string}][&auto_eject_upon_job_cancellation=TRUE|FALSE][&auto_eject_
upon_job_completion=TRUE|FALSE][&auto_eject_upon_media_full=TRUE|FALSE][&ltfs_file_
naming=OBJECT_NAME|OBJECT_ID][&max_tape_fragmentation_percent={32-bit integer}]
[&maximum_auto_verification_frequency_in_days={32-bit integer}][&media_ejection_
allowed=TRUE|FALSE][&name={string}][&secure_media_allocation=TRUE|FALSE][&verify_
prior_to_auto_eject=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&write_
optimization=CAPACITY|PERFORMANCE]

```

To determine the UUID for a storage domain, see [Get Storage Domains on page 573](#).

Request Parameters

Parameter	Description	Required
auto_eject_media_full_threshold	The minimum available capacity (in bytes) at which media is not considered full and eligible for auto-eject. If not configured, the auto-eject threshold is computed based on the preferred chunk size.	no
auto_eject_upon_cron	A CRON expression to indicate when to auto eject media. If set, a CRON job will be created based on the CRON string specified. Once the CRON job is executed, all media assigned to the storage domain not already pending ejection is queued for ejection. Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code> .	no
auto_eject_upon_job_cancellation	Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code> . Values: TRUE, FALSE	no
auto_eject_upon_job_completion	Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes. Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code> . Values: TRUE, FALSE	no
auto_eject_upon_media_full	Determines whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>auto_eject_media_full_threshold</code> . Note: This parameter is only valid if <code>media_ejection_allowed=TRUE</code> . Values: TRUE, FALSE	no

Parameter	Description	Required
ltfs_file_naming	<p>Determines the LTFS file naming mode used on tapes in the storage domain. Values:</p> <ul style="list-style-type: none"> • Object Name – LTFS file names use the format <i>{bucket name}/{object name}</i>, for example <i>bucket1/video1.mov</i>. Object names must comply with LTFS file naming rules. If the tapes are ejected from the BlackPearl gateway and loaded into a non-BlackPearl tape partition, the file names match the object names. <p>Notes:</p> <ul style="list-style-type: none"> • The colon character (:) is not allowed in LTFS file names and therefore not allowed in BlackPearl object names. The slash character (/) is also technically not allowed in LTFS file names; however, the BlackPearl software can accommodate a slash in the object name and translates it as a directory in the LTFS file system (for example, <i>directory1/directory2/video1.mov</i>). • Spectra Logic does not recommend the following characters in LTFS file names or BlackPearl object names for reasons of cross-platform compatibility: control characters such as carriage return (CR) and line feed (LF), double quotation mark (“), asterisk (*), question mark (?), less than sign (<), greater than sign (>), backslash (\), forward slash (/) vertical line (). • Object ID – LTFS file names use the format <i>{bucket name}/{object id}</i>, for example <i>bucket1/1fc6f09c-dd72-41ea-8043-0491ab8a6d82</i>. Object names do not need to comply with LTFS file naming rules. The BlackPearl gateway saves object names as LTFS extended attributes allowing any third party application to reconstruct all the data including the object names. 	no
max_tape_fragmentation_percent	Not currently used.	no
maximum_auto_verification_frequency_in_days	The number of days since the last verification when a piece of unchanged media is not considered for verification.	no

Parameter	Description	Required
media_ejection_allowed	Whether the storage domain or a piece of media assigned to the storage domain, can be ejected from the BlackPearl gateway without generating a failure. Values: TRUE, FALSE	no
name	The name for the storage domain.	no
secure_media_allocation	Whether media must remain within the storage domain. Note: <code>secure_media_allocation</code> should only be set to TRUE when, for compliance purposes, the user must be certain which media ever contained any data for the storage domain (usually, to physically destroy the media once the data is no longer needed), or to force rotating through media when new backups are created and old backups are deleted. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE (default) — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted. 	no
verify_prior_to_auto_eject	The priority for verifying tapes being ejected automatically due to any of the auto-eject triggers. The priority is null if verification is not required prior to ejection. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	no
write_optimization	Specifies whether job chunks are written as quickly as possible or across as few pieces of media as possible. For example, when PERFORMANCE mode is set for a tape partition, job chunks are written as quickly as possible, using all tape drive resources, even if that means that more tapes are allocated to the storage domain than are necessary to write the data. It is better to use CAPACITY mode if the tapes will be ejected after the job completes or if the storage domain is written to very rarely and capacity in the library is of concern. PERFORMANCE mode is recommended in all other cases. Values: CAPACITY, PERFORMANCE	no

Responses

Response Elements

```

<Data>
  <AutoEjectMediaFullThreshold>
    {64-bit integer}
  </AutoEjectMediaFullThreshold>
  <AutoEjectUponCron>{string}</AutoEjectUponCron>
  <AutoEjectUponJobCancellation>
    TRUE | FALSE
  </AutoEjectUponJobCancellation>
  <AutoEjectUponJobCompletion>
    TRUE | FALSE
  </AutoEjectUponJobCompletion>
  <AutoEjectUponMediaFull>
    TRUE | FALSE
  </AutoEjectUponMediaFull>
  <Id>{string}</Id>
  <LtfsFileNaming>OBJECT_ID|OBJECT_NAME</LtfsFileNaming>
  <MaxTapeFragmentationPercent>
    {32-bit integer}
  </MaxTapeFragmentationPercent>
  <MaximumAutoVerificationFrequencyInDays>
    {32-bit integer}
  </MaximumAutoVerificationFrequencyInDays>
  <MediaEjectionAllowed>
    TRUE | FALSE
  </MediaEjectionAllowed>
  <Name>{string}</Name>
  <SecureMediaAllocation>TRUE | FALSE</SecureMediaAllocation>
  <VerifyPriorToAutoEject>
    CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
  </VerifyPriorToAutoEject>
  <WriteOptimization>CAPACITY | PERFORMANCE</WriteOptimization>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.

Parameter	Description
AutoEjectMedia FullThreshold	The minimum available capacity (in bytes) at which media is not considered full and eligible for auto-eject.
AutoEjectUpon Cron	The CRON expression that indicate when to auto eject tape cartridges. If set, a CRON job is created based on the CRON string specified. Once the CRON job is executed, all tape cartridges assigned to the storage domain, not already pending ejection are queued for ejection.
AutoEjectUponJobCancellation	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job is canceled. Values: TRUE, FALSE
AutoEjectUponJobCompletion	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever a job completes. Values: TRUE, FALSE
AutoEjectUpon MediaFull	Whether all media assigned to the storage domain, not already pending ejection, is queued for ejection whenever the media cannot fit the amount of data specified by <code>AutoEjectMediaFullThreshold</code> . Values: TRUE, FALSE
Id	The UUID for the storage domain.
LtfsFileNaming	The LTFS file naming mode used on tapes in the storage domain. Values: OBJECT_ID, OBJECT_NAME . See ltfs_file_naming on page 548 for descriptions.
MaxTape Fragmentation Percent	Obsolete parameter.
MaximumAuto Verification FrequencyInDays	The number of days since the last verification when a piece of unchanged media is not considered for verification.
Name	The name of the storage domain.

Parameter	Description
SecureMedia Allocation	Whether media must remain within the storage domain. Values: <ul style="list-style-type: none"> • TRUE — Media assigned to the storage domain can only be reclaimed for use within the same storage domain. • FALSE — Media assigned to a storage domain can be reclaimed into the general pool if all data on the media is deleted.
VerifyPriorToAuto Eject	The priority for verifying tapes being ejected automatically due to any of the auto-eject triggers. The priority is null if verification is not required prior to ejection. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteOptimization	Whether job chunks are written as quickly as possible (PERFORMANCE) or across as few pieces of media as possible (CAPACITY). Values: CAPACITY, PERFORMANCE

Example

Sample Request

This request modifies the storage domain with the name “sd1” to make `mediaEjectionAllowed=FALSE`.

```
PUT http://blackpearl-hostname/_rest_/storage_domain/sd1/?mediaEjectionAllowed=FALSE
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AutoEjectMediaFullThreshold/>
  <AutoEjectUponCron/>
  <AutoEjectUponJobCancellation>
    FALSE
  </AutoEjectUponJobCancellation>
  <AutoEjectUponJobCompletion>FALSE</AutoEjectUponJobCompletion>
  <AutoEjectUponMediaFull>FALSE</AutoEjectUponMediaFull>
  <Id>02e1db8f-db6f-4dd9-9c79-9ac1dd4aa3de</Id>
  <MaxTapeFragmentationPercent/>
```

```

<MaximumAutoVerificationFrequencyInDays>
  365
</MaximumAutoVerificationFrequencyInDays>
<MediaEjectionAllowed>FALSE</MediaEjectionAllowed>
<Name>sd1</Name>
<SecureMediaAllocation>FALSE</SecureMediaAllocation>
</VerifyPriorToAutoEject>
<WriteOptimization>CAPACITY</WriteOptimization>
</Data>

```

MODIFY STORAGE DOMAIN MEMBER

Description

Modify a storage domain member.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/storage_domain_member/{storage domain member
UUID or other unique attribute}/[?auto_compaction_threshold={32-bit integer}]
[&state={NORMAL|EXCLUSION_IN_PROGRESS}][&write_preference=HIGH|NORMAL|LOW|NEVER_
SELECT]

```

To determine the UUID for a storage domain member, see [Get Storage Domain Members](#) on page 569.

Request Parameters

Parameter	Description	Required
auto_compaction_threshold	The percentage of a tape with deleted objects at which auto compaction is triggered. The minimum is 10.	no

Parameter	Description	Required
state	<p>The state of the storage domain member. Values:</p> <ul style="list-style-type: none"> • NORMAL — The storage domain member is included normally. • EXCLUSION_IN_PROGRESS — Start the process of excluding the storage domain member. Data that resides on it will be copied to other storage domain members. 	no
write_preference	<p>Determines the preferred usage of the tape partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH write_preference before a partition with a NORMAL write_preference, and so on. Use NEVER_SELECT to indicate that the partition is read-only.</p> <p>Note: The write_preference cannot be changed to NEVER_SELECT if the storage domain is in use and there are no other storage domain members assigned that have a higher write_preference.</p> <p>Values: HIGH, NORMAL, LOW, NEVER_SELECT</p>	no

Responses

Response Elements

```

<Data>
  <AutoCompactionThreshold>
    {32-bit integer}
  </AutoCompactionThreshold>
  <Id>{string}</Id>
  <PoolPartitionId>{string}</PoolPartitionId>
  <State>NORMAL|EXCLUSION_IN_PROGRESS</State>
  <StorageDomainId>{string}</StorageDomainId>
  <TapePartitionId>{string}</TapePartitionId>
  <TapeType>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
  </TapeType>
  <WritePreference>
    HIGH|NORMAL|LOW|NEVER_SELECT
  </WritePreference>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AutoCompaction Threshold	The percentage of a tape with deleted objects at which auto compaction is triggered.
Id	The UUID for the storage domain member.
PoolPartitionId	The UUID for the pool partition.
State	The state of the storage domain member. Values: <ul style="list-style-type: none"> • NORMAL — The storage domain member is included normally. • EXCLUSION_IN_PROGRESS — The storage domain member is in the process of being excluded (data that resides on it is being copied to other storage domain members).
StorageDomainId	The UUID for the storage domain assigned the tape partition member.
TapePartitionId	The UUID for the tape partition.
TapeType	The type of tape used by this tape storage domain member. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
WritePreference	The preferred usage of the tape partition when additional capacity is needed. The BlackPearl gateway uses a partition with HIGH <code>write_preference</code> , and so on. A value of NEVER_SELECT indicates that the partition is read-only. Values: HIGH, NORMAL, LOW, NEVER_SELECT

Example

Sample Request

This request modifies the pool partition storage domain membership with UUID 4d5a08b9-cf15-4f8a-a004-73f907071c86 to have `write_preference=HIGH`.

```
PUT http[s]://blackpearl-hostname/_rest_/storage_domain_member/4d5a08b9-cf15-4f8a-a004-73f907071c86/?write_preference=HIGH HTTP/1.1
```

Sample Response

HTTP/1.1 201 CREATED

<Data>

<AutoCompactionThreshold>20</AutoCompactionThreshold>

<Id>4d5a08b9-cf15-4f8a-a004-73f907071c86</Id>

<PoolPartitionId>

c9c12aee-2029-462a-b291-1c76426b3567

</PoolPartitionId>

<State>NORMAL</State>

<StorageDomainId>

aa3078cf-7e01-4e23-854a-648d04e7ae26

</StorageDomainId>

<TapePartitionId/>

<TapeType/>

<WritePreference>HIGH</WritePreference>

</Data>

VOLUME E - HARDWARE OPERATIONS

This section describes operations that pertaining to the backend hardware.

- [Node Operations on page 590](#)
- [Pool Operations on page 597](#)
- [Tape Library and Component Operations on page 658](#)

CHAPTER 14 - NODE OPERATIONS

This chapter provides detailed information about operations you can perform on nodes. For DS3, the nodes are individual BlackPearl gateways.

Get Node	590
Get Nodes	592
Modify Node	594

GET NODE

Description

Get information about the specified node (BlackPearl gateway).

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/node/{node UUID or other unique identifier}/
```

To determine the UUID for a node, see [Get Nodes on page 592](#).

Responses

Response Elements

```
<Data>
  <DataPathHttpPort>{16-bit integer}</DataPathHttpPort>
  <DataPathHttpsPort>{16-bit integer}</DataPathHttpsPort>
  <DataPathIpAddress>{string}</DataPathIpAddress>
  <DnsName>{string}</DnsName>
  <Id>{string}</Id>
  <LastHeartbeat>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastHeartbeat>
  <Name>{string}</Name>
  <SerialNumber>{string}</SerialNumber>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
DataPathHttpPort	The port used for HTTP. If not present in the response, then HTTP access is not configured.
DataPathHttpsPort	The port used for HTTPS. If not present in the response, then HTTPS access is not configured.
DataPathIpAddress	The IPv4 address for the BlackPearl data path.
DnsName	The domain name for the BlackPearl gateway.
Id	The UUID for the BlackPearl gateway.
LastHeartbeat	The date and time that the gateway last sent a heartbeat in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Name	The name for the BlackPearl gateway.
SerialNumber	The serial number for the BlackPearl gateway.

Example

Sample Request

This request gets information about the node with the name EngineeringBP.

```
GET http://blackpearl-hostname/_rest_/node/EngineeringBP/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPathHttpPort/>
  <DataPathHttpsPort>443</DataPathHttpsPort>
  <DataPathIpAddress>10.1.16.1</DataPathIpAddress>
  <DnsName/>
  <Id>48db59bd-cd5d-481a-93a7-15caa0a8ab43</Id>
  <LastHeartbeat>2015-10-13 14:42:54.378</LastHeartbeat>
  <Name>EngineeringBP</Name>
  <SerialNumber>5003048001fff43f</SerialNumber>
</Data>
```

GET NODES

Description

Gets information about all nodes in a single BlackPearl gateway instance or name space.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/node/[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of nodes to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first node to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```

<Data>
  <Node>
    <DataPathHttpPort>{16-bit integer}</DataPathHttpPort>
    <DataPathHttpsPort>{16-bit integer}</DataPathHttpsPort>
    <DataPathIpAddress>{string}</DataPathIpAddress>
    <DnsName>{string}</DnsName>
    <Id>{string}</Id>
    <LastHeartbeat>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastHeartbeat>
    <Name>{string}</Name>
    <SerialNumber>{string}</SerialNumber>
  </Node>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
Node	A container for information about one node.
DataPathHttpPort	The port used for HTTP. If not present in the response, then HTTP access is not configured.
DataPathHttpsPort	The port used for HTTPS. If not present in the response, then HTTPS access is not configured.
DataPathIpAddress	The IPv4 address for the BlackPearl data path.
DnsName	The domain name for the BlackPearl gateway.
Id	The UUID for the BlackPearl gateway.
LastHeartbeat	The date and time that the gateway last sent a heartbeat in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Name	The name for the BlackPearl gateway.
SerialNumber	The serial number for the BlackPearl gateway.

Example

Sample Request

This request lists information about all nodes.

```
GET http://blackpearl-hostname/_rest_/node/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Node>
    <DataPathHttpPort/>
    <DataPathHttpsPort>443</DataPathHttpsPort>
    <DataPathIpAddress>10.1.16.1</DataPathIpAddress>
    <DnsName/>
    <Id>48db59bd-cd5d-481a-93a7-15caa0a8ab43</Id>
    <LastHeartbeat>2015-10-13 14:42:54.378</LastHeartbeat>
    <Name>EngineeringBP</Name>
    <SerialNumber>5003048001fff43f</SerialNumber>
  </Node>
  ...
</Data>
```

MODIFY NODE

Description

Modify the node name or domain name for a specified node.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```
PUT http[s]://{datapathDnsname}/_rest_/node/{node UUID or other unique attribute}/
[?dns_name={string}][&name={string}]
```

To determine the UUID for a node, see [Get Nodes on page 592](#).

Request Parameters

Parameter	Description	Required
dns_name	<p>The new domain name for the node.</p> <p>Notes:</p> <ul style="list-style-type: none"> • If a domain name isn't configured for a node, its data path IP address is used when the TCP/IP address of the node must be given to a client. • If a domain name is configured for a node, the domain name (or IP address) is used, regardless of whether the data path IP address changes after the domain name is configured. • Configuring a DNS name is necessary whenever the data path IP of the BlackPearl gateway is not the IP address that should be used by clients who want to communicate with it (for example, if a network address translation has been installed between clients and the BlackPearl gateway). 	no
name	The new name for the node.	no

Responses

Response Elements

```

<Data>
  <DataPathHttpPort>{16-bit integer}</DataPathHttpPort>
  <DataPathHttpsPort>{16-bit integer}</DataPathHttpsPort>
  <DataPathIpAddress>{string}</DataPathIpAddress>
  <DnsName>{string}</DnsName>
  <Id>{string}</Id>
  <LastHeartbeat>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastHeartbeat>
  <Name>{string}</Name>
  <SerialNumber>{string}</SerialNumber>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
DataPathHttpPort	The port used for HTTP. If not present in the response, then HTTP access is not configured.

Parameter	Description
DataPathHttpsPort	The port used for HTTPS. If not present in the response, then HTTPS access is not configured.
DataPathIpAddress	The IPv4 address for the BlackPearl data path.
DnsName	The domain name for the BlackPearl gateway.
Id	The UUID for the BlackPearl gateway.
LastHeartbeat	The date and time that the gateway last sent a heartbeat in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Name	The name for the BlackPearl gateway.
SerialNumber	The serial number for the BlackPearl gateway.

Example

Sample Request

This request changes the name of the node with UUID 48db59bd-cd5d-481a-93a7-15caa0a8ab43 to ProductionBP.

```
GET http://blackpearl-hostname/_rest_/node/48db59bd-cd5d-481a-93a7-15caa0a8ab43/?name=ProductionBP HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <DataPathHttpPort/>
  <DataPathHttpsPort>443</DataPathHttpsPort>
  <DataPathIpAddress>10.1.16.1</DataPathIpAddress>
  <DnsName/>
  <Id>48db59bd-cd5d-481a-93a7-15caa0a8ab43</Id>
  <LastHeartbeat>2015-10-13 14:42:54.378</LastHeartbeat>
  <Name>ProductionBP</Name>
  <SerialNumber>5003048001fff43f</SerialNumber>
</Data>
```


CHAPTER 15 - POOL OPERATIONS

This chapter provides detailed information about operations you can perform on pools and pool partitions. A pool is a set of physical drives grouped together to create a single virtual drive. A pool partition is a named collection of zero or more pools. A data partition (pool partition or tape partition (see [Tape Library and Component Operations on page 658](#)) must be added to a storage domains (see [Storage Domain Operations on page 540](#)) before it can be used by the BlackPearl gateway.

Cancel Import of Pool	598
Cancel Import of Pools	602
Cancel Verify Pool	603
Cancel Verify On All Pools	606
Compact Pool	607
Compact Pools	611
Create Pool Partition	612
Deallocate Pool	614
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Modify Pool	646
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Modify Pools	651
Verify Pool	652
Verify Pools	656

CANCEL IMPORT OF POOL

Description

Cancels a pending pool import for the specified pool. If the import is in process, it cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}?operation=CANCEL_IMPORT
```

To determine the UUID for a pool, see [Get Pools](#) on page 635.

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel import. Value: CANCEL_IMPORT	yes

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE | FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK | DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastAccessed>
  <LastModified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastModified>
  <LastVerified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
  <PartitionId>{string}</PartitionId>
  <PoweredOn>TRUE | FALSE</PoweredOn>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedCapacity>{64-bit integer}</ReservedCapacity>
  <State>
    NORMAL | FOREIGN | IMPORT_IN_PROGRESS | IMPORT_PENDING | LOST
  </State>
  <StorageDomainMemberId>{string}</StorageDomainMemberId>
  <TotalCapacity>{64-bit integer}</TotalCapacity>
  <Type>NEARLINE | ONLINE</Type>
  <UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.

Parameter	Description
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: <ul style="list-style-type: none"> • NORMAL — The pool is ready for use. • FOREIGN — A pool from another BlackPearl gateway. This data must be copied into a bucket on this BlackPearl gateway before it is accessible. • IMPORT_IN_PROGRESS — A FOREIGN pool is in the process of being imported into a bucket on this BlackPearl gateway. • IMPORT_PENDING — A FOREIGN pool is waiting to be imported into a bucket on this BlackPearl gateway. • LOST — The pool was removed without first exporting it from a bucket.
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.

Parameter	Description
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request cancels the pending pool import of the pool with the UUID 4a79a678-e187-44b3-b137-aaa86683f228.

```
PUT http://blackpearl-hostname/_rest_/pool/4a79a678-e187-44b3-b137-aaa86683f228/?operation=CANCEL_IMPORT HTTP/1.1
```

Sample Response

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableCapacity>10000</AvailableCapacity>
  <BucketId/>
  <Guid>b9f05ae1-94f1-4d4d-ad4a-a89da2c41332</Guid>
  <Health>OK</Health>
  <Id>4a79a678-e187-44b3-b137-aaa86683f228</Id>
  <LastAccessed/>
  <LastModified/>
  <LastVerified/>
  <Mountpoint>/mountpoint-0</Mountpoint>
  <Name>pool0</Name>
  <PartitionId/>
  <PoweredOn>TRUE</PoweredOn>
  <Quiesced>NO</Quiesced>
  <ReservedCapacity>0</ReservedCapacity>
  <State>NORMAL</State>
  <StorageDomainMemberId/>
  <TotalCapacity>30000</TotalCapacity>
  <Type>NEARLINE</Type>
  <UsedCapacity>20000</UsedCapacity>
</Data>
```

CANCEL IMPORT OF POOLS

Description

Cancel all pending pool imports. Pool imports that are in process are not canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?operation=CANCEL_IMPORT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel import. Value: CANCEL_IMPORT	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request cancels all pending pool imports.

```
PUT http://blackpearl-hostname/_rest_/pool/?operation=CANCEL_IMPORT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CANCEL VERIFY POOL

Description

Cancel a pending pool verification. You cannot cancel a pool verification that is in process.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}?operation=CANCEL_VERIFY
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel pool verification. Value: CANCEL_VERIFY	yes

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK|DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
```

```

<Name>{string}</Name>
<PartitionId>{string}</PartitionId>
<PoweredOn>TRUE|FALSE</PoweredOn>
<Quiesced>NO|PENDING|YES</Quiesced>
<ReservedCapacity>{64-bit integer}</ReservedCapacity>
<State>
    NORMAL|FOREIGN|IMPORT_IN_PROGRESS|IMPORT_PENDING|LOST
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TotalCapacity>{64-bit integer}</TotalCapacity>
<Type>NEARLINE|ONLINE</Type>
<UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.
Health	Whether the pool is in good health or degraded. Values: OK , DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.

Parameter	Description
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE , FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK , NORMAL , FOREIGN , IMPORT_IN_PROGRESS , IMPORT_PENDING , LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved, and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request cancels the verification of the pool with the UUID 8b14538f-abc9-41f0-8be0-bf124718f9d5.

```
PUT http://blackpearl-hostname/_rest_/pool/8b14538f-abc9-41f0-8be0-
bf124718f9d5/?operation=CANCEL_VERIFY HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
```

```
<AvailableCapacity>10000</AvailableCapacity>
```

```
<BucketId/>
```

```
<Guid>d740c8f5-3609-49c0-93c2-db0bd4645525</Guid>
```

```
<Health>OK</Health>
```

```
<Id>8b14538f-abc9-41f0-8be0-bf124718f9d5</Id>
```

```
<LastAccessed/>
```

```

<LastModified/>
<LastVerified/>
<Mountpoint>/mountpoint-0</Mountpoint>
<Name>pool0</Name>
<PartitionId/>
<PoweredOn>TRUE</PoweredOn>
<Quiesced>NO</Quiesced>
<ReservedCapacity>0</ReservedCapacity>
<State>NORMAL</State>
<StorageDomainMemberId/>
<TotalCapacity>0</TotalCapacity>
<Type>NEARLINE</Type>
<UsedCapacity>20000</UsedCapacity>
</Data>

```

CANCEL VERIFY ON ALL POOLS

Description

Cancel all pending pool verifications. You cannot cancel a pool verification that is in process.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?operation=CANCEL_VERIFY
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel pool verification. Value: CANCEL_VERIFY	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request cancels all pending pool verifications.

```
PUT http://blackpearl-hostname/_rest_/pool/?operation=CANCEL_VERIFY HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

COMPACT POOL

Description

Pool compaction is periodically done automatically in the background. If the pool does not contain data, it is reclaimed in its entirety and unassigned from its current storage domain. This makes the pool available for allocation to any storage domain. If the pool cannot be reclaimed in its entirety, its usage level is checked, and data that is eligible for deletion is deleted as necessary to compact the pool so that it has space for new data.

Use this request to force a compaction to be scheduled immediately for a specified pool, without having to wait for the automatic, periodic scheduling.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}?operation=COMPACT[&priority=URGENT|HIGH|NORMAL|LOW]
```

To determine the UUID for a pool, see [Get Pools](#) on page 635.

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to compact the pool. Value: COMPACT	yes
priority	The priority for processing this task. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	no

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE | FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK | DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
  <PartitionId>{string}</PartitionId>
  <PoweredOn>TRUE | FALSE</PoweredOn>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedCapacity>{64-bit integer}</ReservedCapacity>
  <State>
    NORMAL | FOREIGN | IMPORT_IN_PROGRESS | IMPORT_PENDING | LOST
  </State>
  <StorageDomainMemberId>{string}</StorageDomainMemberId>
  <TotalCapacity>{64-bit integer}</TotalCapacity>
  <Type>NEARLINE | ONLINE</Type>
  <UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedCapacity	The capacity reserved for overhead.
State	The status of the pool. Values: BLANK, NORMAL, FOREIGN, IMPORT_IN_PROGRESS, IMPORT_PENDING, LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.

Parameter	Description
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request compacts the pool with the UUID 77f3f144-be85-48ad-abd8-8e0f2d09f713.

```
PUT http://blackpearl-hostname/_rest_/pool/77f3f144-be85-48ad-abd8-8e0f2d09f713/?operation=COMPACT HTTP/1.1
```

Sample Response

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableCapacity>10000</AvailableCapacity>
  <BucketId/>
  <Guid>9a80574a-2a08-480e-98a6-ff0fa809987a</Guid>
  <Health>OK</Health>
  <Id>77f3f144-be85-48ad-abd8-8e0f2d09f713</Id>
  <LastAccessed/>
  <LastModified/>
  <LastVerified/>
  <Mountpoint>/mountpoint-0</Mountpoint>
  <Name>pool0</Name>
  <PartitionId/>
  <PoweredOn>TRUE</PoweredOn>
  <Quiesced>NO</Quiesced>
  <ReservedCapacity>0</ReservedCapacity>
  <State>NORMAL</State>
  <StorageDomainMemberId/>
  <TotalCapacity>30000</TotalCapacity>
  <Type>NEARLINE</Type>
  <UsedCapacity>20000</UsedCapacity>
</Data>
```

COMPACT POOLS

Description

Pool compaction is periodically done automatically in the background. If the pool does not contain data, it is reclaimed in its entirety and unassigned from its current storage domain. This makes the pool available for allocation to any storage domain. If the pool cannot be reclaimed in its entirety, its usage level is checked, and data that is eligible for deletion is deleted as necessary to compact the pool so that it has space for new data.

Use this request to force a compaction to be scheduled immediately for all eligible pools, without having to wait for the automatic, periodic scheduling.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?operation=COMPACT
[&priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to compact the pool. Value: COMPACT	yes
priority	The priority for processing this task. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)

Example

Sample Request

This request compacts all pools on the BlackPearl gateway.

```
PUT http[s]://blackpearl-hostname/_rest_/pool/?operation=COMPACT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CREATE POOL PARTITION

Description

Create a pool partition. A pool partition may contain any number of pools and may be added as a member of a storage domain.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/pool_partition/?name={string}&type=NEARLINE|ONLINE
```

Request Parameters

Parameter	Description	Required
name	The name for the pool partition.	yes
type	The type of pool partition to create. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	yes

Responses

Response Elements

```
<Data>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <Type>NEARLINE | ONLINE</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Id	The UUID for the partition.
Name	The name of the partition.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)

Example

Sample Request

This request creates nearline pool partition with the name 'Nearline_Pool'.

```
POST http[s]://blackpearl-hostname/_rest_/pool_partition/?name=Nearline_Pool&type=NEARLINE HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 Created
<Data>
  <Id>31cd01db-97ae-43c7-bad1-ed7b14be3af4</Id>
  <Name>somename</Name>
  <Type>NEARLINE</Type>
</Data>
```

DEALLOCATE POOL

Description

Deallocates the specified pool, which contains no data.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{unique identifier or attribute}?operation=DEALLOCATE
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to deallocate a pool. Value: DEALLOCATE	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found
- 409: Conflict (pool is not empty)

Example

Sample Request

This request deallocates the pool with the UUID 6f1db92a-05db-4e6d-9bd2-648a69a75cfe.

```
PUT http://blackpearl-hostname/_rest_/pool/6f1db92a-05db-4e6d-9bd2-648a69a75cfe?operation=DEALLOCATE HTTP/1.1
```

Sample Response

HTTP/1.1 204 No Content

DELETE PERMANENTLY LOST POOL

Description

Deletes the specified pool which has been permanently lost from the BlackPearl database. Any data lost as a result is marked degraded to trigger a rebuild.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}/
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the pool with the UUID 66750ad9-9c20-402d-8703-e429070490a6.

```
DELETE http://blackpearl-hostname/_rest_/pool/66750ad9-9c20-402d-8703-e429070490a6/  
HTTP/1.1
```

Sample Response

HTTP/1.1 204 No Content

DELETE POOL FAILURE

Description

Deletes the specified pool failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/pool_failure/{pool failure UUID or other unique attribute}/
```

To determine the UUID for a pool failure, see [Get Pool Failures on page 628](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the pool failure with the UUID 8b865b58-2816-4d4d-8c7b-64189bf7ca37.

```
DELETE http://blackpearl-hostname/_rest_/pool_failure/8b865b58-2816-4d4d-8c7b-64189bf7ca37/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE POOL PARTITION

Description

Deletes the specified pool partition. A pool partition can only be deleted if it contains no members.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/pool_partition/{pool partition UUID or other unique attribute}/
```

To determine the UUID for a pool partition, see [Get Pool Partitions on page 633](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the pool partition with the name 'pool_partition_1'.

```
DELETE http://blackpearl-hostname/_rest_/pool_partition/pool_partition_1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

FORCE POOL ENVIRONMENT REFRESH

Description

Forces the pool environment to be refreshed at the earliest possibility. The pool environment is updated automatically based on pool environment change events. This request is not needed under normal circumstances.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool_environment/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request refreshes the pool environment.

```
PUT http://blackpearl-hostname/_rest_/pool_environment/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

FORMAT FOREIGN POOL

Description

Format the specified foreign pools, permanently deleting all data on it and taking ownership of it for this BlackPearl gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}/?operation=FORMAT
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is format pool. Value: FORMAT	yes

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK|DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
```

```

<PartitionId>{string}</PartitionId>
<PoweredOn>TRUE|FALSE</PoweredOn>
<Quiesced>NO|PENDING|YES</Quiesced>
<ReservedCapacity>{64-bit integer}</ReservedCapacity>
<State>
    NORMAL|FOREIGN|IMPORT_IN_PROGRESS|IMPORT_PENDING|LOST
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TotalCapacity>{64-bit integer}</TotalCapacity>
<Type>NEARLINE|ONLINE</Type>
<UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.
Health	Whether the pool is in good health or degraded. Values: OK , DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.

Parameter	Description
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE , FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK , NORMAL , FOREIGN , IMPORT_IN_PROGRESS , IMPORT_PENDING , LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request cancels the pending pool import of the pool with the UUID 426934bb-85ea-41e5-96b5-e56a3f7858e6.

```
PUT http://blackpearl-hostname/_rest_/pool/426934bb-85ea-41e5-96b5-
e56a3f7858e6/?operation=FORMAT HTTP/1.1
```

Sample Response

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableCapacity>10000</AvailableCapacity>
  <BucketId/>
  <Guid>4cb55978-2f13-426b-82db-ac0f37d462bd</Guid>
  <Health>OK</Health>
  <Id>426934bb-85ea-41e5-96b5-e56a3f7858e6</Id>
  <LastAccessed/>
  <LastModified/>
```

```

<LastVerified/>
<Mountpoint>/mountpoint-0</Mountpoint>
<Name>pool0</Name>
<PartitionId/>
<PoweredOn>TRUE</PoweredOn>
<Quiesced>NO</Quiesced>
<ReservedCapacity>0</ReservedCapacity>
<State>NORMAL</State>
<StorageDomainMemberId/>
<TotalCapacity>30000</TotalCapacity>
<Type>NEARLINE</Type>
<UsedCapacity>20000</UsedCapacity>
</Data>

```

FORMAT FOREIGN POOLS

Description

Format all foreign pools, permanently deleting all data on them and taking ownership of them for this BlackPearl gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?operation=FORMAT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is format pool. Value: FORMAT	yes

Responses

Response Elements

The operation returns status only.

Notable status code:

- 204: No Content (success)

Example

Sample Request

This request formats all foreign pools.

```
PUT http://blackpearl-hostname/_rest_/pool/?operation=FORMAT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET OBJECT PARTS ON POOL

Description

Get the list of object pieces on the specified pool.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}?operation=GET_PHYSICAL_PLACEMENT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform on the Amazon S3 target. For this command, the operation is Get Physical Placement .	yes

Responses

Response Elements

```
<Data>
  <Object Bucket="{string}" Id="{string}" Latest="TRUE|FALSE"
    Length="{64-bit integer}" Name="{string}"
    Offset="{64-bit integer}" VersionId="{string}">
    ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
Object	The container for information about one object.
Bucket	The name of the bucket containing the object.
Id	The UUID for the object.
Latest	Whether this version of the object is the latest. Values: TRUE , FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request returns a list of all object parts in the pool with the UUID 11cb7946-9f4d-49a0-96a9-2dfd687298ca.

```
GET http://blackpearl-hostname/_rest_/pool/11cb7946-9f4d-49a0-96a9-2dfd687298ca/?operation=GET_PHYSICAL_PLACEMENT HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

<Data>

```
<Object Bucket="bucket_name"
  Id="6c1807af-c34c-418c-a055-13717e058952" Latest="TRUE"
  Length="10" Name="o1" Offset="0"
  VersionId="274da5c4-b94a-47ae-80c0-e6b8e1be55a0"/>
```

```
<Object Bucket="bucket_name"
  Id="f9d2fb04-7e93-41c6-9ee7-24d26f3ac753" Latest="TRUE"
  Length="10" Name="o2" Offset="0"
  VersionId="fa6a0b92-85c2-44f3-8d21-541c437bda9d"/>
```

</Data>

GET POOL

Description

Get information about the specified pool.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}/
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE | FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK | DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastAccessed>
  <LastModified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastModified>
  <LastVerified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
  <PartitionId>{string}</PartitionId>
  <PoweredOn>TRUE | FALSE</PoweredOn>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedCapacity>{64-bit integer}</ReservedCapacity>
  <State>
    NORMAL | FOREIGN | IMPORT_IN_PROGRESS | IMPORT_PENDING | LOST
  </State>
  <StorageDomainMemberId>{string}</StorageDomainMemberId>
  <TotalCapacity>{64-bit integer}</TotalCapacity>
  <Type>NEARLINE | ONLINE</Type>
  <UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.

Parameter	Description
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK, NORMAL, FOREIGN, IMPORT_IN_PROGRESS, IMPORT_PENDING, LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request retrieves information about the pool with the UUID a480b50c-da32-4dad-8a6b-1923e46783ce.

```
GET http://blackpearl-hostname/_rest_/pool/a480b50c-da32-4dad-8a6b-1923e46783ce/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableCapacity>10000</AvailableCapacity>
  <BucketId/>
  <Guid>83d36686-e454-4c21-98ff-83a723918ef6</Guid>
  <Health>OK</Health>
  <Id>a480b50c-da32-4dad-8a6b-1923e46783ce</Id>
  <LastAccessed/>
  <LastModified/>
  <LastVerified/>
  <Mountpoint>/mountpoint-0</Mountpoint>
  <Name>pool0</Name>
  <PartitionId/>
  <PoweredOn>TRUE</PoweredOn>
  <Quiesced>NO</Quiesced>
  <ReservedCapacity>0</ReservedCapacity>
  <State>NORMAL</State>
  <StorageDomainMemberId/>
  <TotalCapacity>30000</TotalCapacity>
  <Type>NEARLINE</Type>
  <UsedCapacity>20000</UsedCapacity>
</Data>
```

GET POOL FAILURES

Description

Get a list of all pool failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool_failure/[?error_message={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&pool_id={string}][&type=BLOB_READ_FAILED|DATA_CHECKPOINT_FAILURE|DATA_CHECKPOINT_MISSING|FORMAT_FAILED|IMPORT_FAILED|IMPORT_INCOMPLETE|IMPORT_FAILED_DUE_TO_DATA_INTEGRITY|IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE|INSPECT_FAILED|QUIESCED|READ_FAILED|VERIFY_FAILED|WRITE_FAILED]
```

Request Parameters

Parameter	Description	Required
error_message 1	The description of an error.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of failures to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first failure to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
pool_id	The UUID or other unique attribute for the error pool.	no
type	The type of error message. Values: BLOB_READ_FAILED, DATA_CHECKPOINT_FAILURE, DATA_CHECKPOINT_MISSING, FORMAT_FAILED, IMPORT_FAILED, IMPORT_FAILED_DUE_TO_DATA_INTEGRITY, IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE, IMPORT_INCOMPLETE, INSPECT_FAILED, QUIESCED, READ_FAILED, VERIFY_FAILED, WRITE_FAILED	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <PoolFailure>
    <Date>{YYYY-MM-DDThh:mm:ss.xxxZ}</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <PoolId>{string}</PoolId>
    <Type>
      BLOB_READ_FAILED|DATA_CHECKPOINT_FAILURE|
      DATA_CHECKPOINT_MISSING|FORMAT_FAILED|IMPORT_FAILED|
      IMPORT_FAILED_DUE_TO_DATA_INTEGRITY|
      IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE|
      IMPORT_INCOMPLETE|INSPECT_FAILED|QUIESCED|READ_FAILED|
      VERIFY_FAILED|WRITE_FAILED
    </Type>
  </PoolFailure>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
PoolFailure	A container for information about a single pool failure.
Date	The date and time the error occurred in the format <i>YYYY-MM-DDThh:mm:ss.xxxZ</i> .
ErrorMessage	A description of the error.
Id	The UUID for the error message.
PoolId	The UUID for the pool.
Type	The type of pool error message. Values: BLOB_READ_FAILED, DATA_CHECKPOINT_FAILURE, DATA_CHECKPOINT_MISSING, FORMAT_FAILED, IMPORT_FAILED, IMPORT_FAILED_DUE_TO_DATA_INTEGRITY, IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE, IMPORT_INCOMPLETE, INSPECT_FAILED, QUIESCED, READ_FAILED, VERIFY_FAILED, WRITE_FAILED

Example

Sample Request

This request retrieves a list of all pool failures.

```
GET http://blackpearl-hostname/_rest_/pool_failure/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <PoolFailure>
    <Date>2015-08-28 12:39:50.307</Date>
    <ErrorMessage>
      Could not read object from pool.
    </ErrorMessage>
    <Id>6a702949-9408-43a1-b743-aa410256f109</Id>
    <PoolId>650da9c3-5a7a-41e0-b8c0-b7219e70cce4</PoolId>
    <Type>BLOB_READ_FAILED</Type>
  </PoolFailure>
</Data>
```

GET POOL PARTITION

Description

Get information about the specified pool partition.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool_partition/{pool_partition_id or other unique attribute}/
```

To determine the UUID for a pool partition, see [Get Pool Partitions on page 633](#).

Responses

Response Elements

```
<Data>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <Type>NEARLINE | ONLINE</Type>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Id	The UUID for the partition.
Name	The name of the partition.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)

Example

Sample Request

This request retrieves information about the pool partition with the UUID c0130c36-a55b-4570-a490-3b8041bfb886.

```
GET http://blackpearl-hostname/_rest_/pool_partition/c0130c36-a55b-4570-a490-3b8041bfb886/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Id>c0130c36-a55b-4570-a490-3b8041bfb886</Id>
  <Name>dp1</Name>
  <Type>NEARLINE</Type>
</Data>
```

GET POOL PARTITIONS

Description

Get a list of all pool partitions. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool_partition/[?last_page][&name={string}]
[&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker=
{string}][&type=NEARLINE|ONLINE]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
name 1	The name of the partition.	no
page_length	The maximum number of pool partitions to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first pool partition to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	no

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```
<Data>
  <PoolPartition>
    <Id>{string}</Id>
    <Name>{string}</Name>
    <Type>NEARLINE|ONLINE</Type>
  </PoolPartition>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
PoolPartition	The container for information about a single pool partition.
Id	The UUID for the partition.
Name	The name of the partition.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)

Example

Sample Request

This request retrieves a list of pool partitions.

```
GET http://blackpearl-hostname/_rest_/pool_partition/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <PoolPartition>
    <Id>0a55e7c9-b538-46a6-a649-b61056c27500</Id>
    <Name>dp1</Name>
    <Type>NEARLINE</Type>
  </PoolPartition>
  <PoolPartition>
    <Id>6d9fd192-ca48-43e0-8d5b-14a169be028e</Id>
    <Name>dp2</Name>
    <Type>NEARLINE</Type>
  </PoolPartition>
  ...
</Data>
```

GET POOLS

Description

Get a list of all pools. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool/[?assigned_to_storage_domain=TRUE|FALSE]
[&bucket_id={string}][&health=OK|DEGRADED][&last_page][&name={string}][&page_length=
{32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
[&partition_id={string}][&powered_on=TRUE|FALSE][&state=NORMAL|FOREIGN|IMPORT_IN_
PROGRESS|IMPORT_PENDING|LOST][&storage_domain_member_id={string}]
[&type=NEARLINE|ONLINE]
```

Request Parameters

Parameter	Description	Required
assigned_to_storage_domain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE	no

Parameter	Description	Required
bucket_id	The UUID for the bucket to which the pool is assigned.	no
guid	The ZFS identifier for the pool.	no
health	Whether the pool is in good health or degraded. Values: OK, DEGRADED	no
last_page	If included, only the last page of results is returned.	no
last_verified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .	no
name 1	The name assigned to the pool.	no
page_length	The maximum number of pools to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first pool to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
partition_id	The UUID for the partition.	no
powered_on	Whether the pool is powered on. This is always TRUE for pools with <code>type=ONLINE</code> . Values: TRUE, FALSE	no
state	The status of the pool. Values: BLANK, NORMAL, FOREIGN, IMPORT_IN_PROGRESS, IMPORT_PENDING, LOST . State on page 600 .	no
storage_domain_member_id	The UUID for the storage domain member. See Get Storage Domain Members on page 569 .	no
type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <Pool>
    <AssignedToStorageDomain>
      TRUE | FALSE
    </AssignedToStorageDomain>
    <AvailableCapacity>{64-bit integer}</AvailableCapacity>
    <BucketId>{string}</BucketId>
    <Guid>{string}</Guid>
    <Health>OK | DEGRADED</Health>
    <Id>{string}</Id>
    <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
    <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
    <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
    <Mountpoint>/{string}</Mountpoint>
    <Name>{string}</Name>
    <PartitionId>{string}</PartitionId>
    <PoweredOn>TRUE | FALSE</PoweredOn>
    <Quiesced>NO | PENDING | YES</Quiesced>
    <ReservedCapacity>{64-bit integer}</ReservedCapacity>
    <State>
      NORMAL | FOREIGN | IMPORT_IN_PROGRESS | IMPORT_PENDING | LOST
    </State>
    <StorageDomainMemberId>{string}</StorageDomainMemberId>
    <TotalCapacity>{64-bit integer}</TotalCapacity>
    <Type>NEARLINE | ONLINE</Type>
    <UsedCapacity>{64-bit integer}</UsedCapacity>
  </Pool>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE

Parameter	Description
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.
Health	Whether the pool is in good health or degraded. Values: OK , DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE , FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK , NORMAL , FOREIGN , IMPORT_IN_PROGRESS , IMPORT_PENDING , LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request retrieves information about all pools associated with the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/pool/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Pool>
    <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
    <AvailableCapacity>10000</AvailableCapacity>
    <BucketId/>
    <Guid>6a0a51b0-8318-4945-a67a-c890c0ab92de</Guid>
    <Health>OK</Health>
    <Id>a124e769-be69-4ae5-8846-9a58f40d28f1</Id>
    <LastAccessed/>
    <LastModified/>
    <LastVerified/>
    <Mountpoint>/mountpoint-0</Mountpoint>
    <Name>pool0</Name>
    <PartitionId/>
    <PoweredOn>TRUE</PoweredOn>
    <Quiesced>NO</Quiesced>
    <ReservedCapacity>0</ReservedCapacity>
    <State>NORMAL</State>
    <StorageDomainMemberId/>
    <TotalCapacity>30000</TotalCapacity>
    <Type>NEARLINE</Type>
    <UsedCapacity>20000</UsedCapacity>
  </Pool>
  ...
</Data>
```

IMPORT POOL

Description

Import the specified pool for use by the BlackPearl gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or unique
attribute}?operation=IMPORT[&data_policy_id={string}]
[&priority=URGENT|HIGH|NORMAL|LOW|BACKGROUND][&storage_domain_id={string}][&user_id=
{string}][&verify_data_after_import=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND]
[&verify_data_prior_to_import=TRUE|FALSE]
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
data_policy_id	The UUID, name, or other unique attribute for the data policy to associate with any buckets on the pool that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the pool, the data_policy_id is required.	no
priority	The priority for processing the import. The priority determines the resources assigned and the processing order. Imports can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
storage_domain_id	The UUID, name, or other unique attribute for the storage domain to associate with the data on the pool. Note: If there are new buckets on the pool and this parameter is not specified, the BlackPearl gateway attempts to determine the most logical storage domain in which to add the pool.	no
user_id	The UUID, name, or other unique attribute for the user to associate with any buckets on the pool that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the pool, the user_id is required.	no
verify_data_after_import	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	no

Parameter	Description	Required
verify_data_before_import	<p>Whether the data must be verified before the pool is imported. Values: TRUE, FALSE</p> <p>Note: It is recommended to verify data prior to import whenever it is possible that the pool being imported contains objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.</p>	no

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK|DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
  <PartitionId>{string}</PartitionId>
  <PoweredOn>TRUE|FALSE</PoweredOn>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <ReservedCapacity>{64-bit integer}</ReservedCapacity>
  <State>
    NORMAL|FOREIGN|IMPORT_IN_PROGRESS|IMPORT_PENDING|LOST
  </State>
  <StorageDomainMemberId>{string}</StorageDomainMemberId>
  <TotalCapacity>{64-bit integer}</TotalCapacity>
  <Type>NEARLINE|ONLINE</Type>
  <UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK, NORMAL, FOREIGN, IMPORT_IN_PROGRESS, IMPORT_PENDING, LOST . State on page 600 .
StorageDomainMemberId	The UUID for the storage domain member.

Parameter	Description
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request imports the pool with the UUID ea6719df-4d61-4462-89c5-51d6bf44f47d using the data policy 'dp1' and the user 'abc'.

```
PUT http://blackpearl-hostname/_rest_/pool/ea6719df-4d61-4462-89c5-51d6bf44f47d/?operation=IMPORT&data_policy_id=dp1&user_id=abc HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableCapacity>10000</AvailableCapacity>
  <BucketId/>
  <Guid>1cad0b5a-e271-4b70-aca9-a8c614779b18</Guid>
  <Health>OK</Health>
  <Id>ea6719df-4d61-4462-89c5-51d6bf44f47d</Id>
  <LastAccessed/>
  <LastModified/>
  <LastVerified/>
  <Mountpoint>/mountpoint-0</Mountpoint>
  <Name>pool0</Name>
  <PartitionId/>
  <PoweredOn>TRUE</PoweredOn>
  <Quiesced>NO</Quiesced>
  <ReservedCapacity>0</ReservedCapacity>
  <State>NORMAL</State>
  <StorageDomainMemberId/>
  <TotalCapacity>30000</TotalCapacity>
  <Type>NEARLINE</Type>
  <UsedCapacity>20000</UsedCapacity>
</Data>
```

IMPORT POOLS

Description

Import all foreign pools to make them available to the current BlackPearl gateway.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?operation=IMPORT[&data_policy_id={string}][&priority=URGENT|HIGH|NORMAL|LOW|BACKGROUND][&storage_domain_id={string}][&user_id={string}][&verify_data_after_import=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&verify_data_prior_to_import=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
data_policy_id	The UUID, name, or other unique attribute for the data policy to associate with any buckets on the pool that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the pool, the data_policy_id is required.	no
priority	The priority for processing the import. The priority determines the resources assigned and the processing order. Imports can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
storage_domain_id	The UUID, name, or other unique attribute for the storage domain to associate with the data on the pool. Note: If there are new buckets on the pool and this parameter is not specified, the BlackPearl gateway attempts to determine the most logical storage domain in which to add the pool.	no

Parameter	Description	Required
user_id	The UUID, name, or other unique attribute for the user to associate with any buckets on the pool that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the pool, the user_id is required.	no
verify_data_after_import	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	no
verify_data_before_import	Whether the data must be verified before the pool is imported. Values: TRUE, FALSE Note: It is recommended to verify data prior to import whenever it is possible that the pool being imported contains objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request imports all foreign pools using data policy 'dp1' and user 'user1'.

```
PUT http://blackpearl-hostname/_rest_/pool/?operation=IMPORT&data_policy_id=dp1&user_id=user1 HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MODIFY POOL

Description

Modify the partition assignment of the specified pool or the quiesced state.

Notes:

- If an optional request parameter is not included, the previous setting is retained.
- It is not possible to change the quiesced state directly from **NO** to **YES**.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}/
[?partition_id={string}][&quiesced=NO|PENDING]
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Request Parameters

Parameter	Description	Required
partition_id	The UUID, name, or other unique attribute for the pool partition to which to assign the pool.	no
quiesced	Request that the gateway prepare the pool to go into an inactive state (PENDING) or return the pool to an active state (NO). Values: NO , PENDING	no

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE | FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK | DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastAccessed>
  <LastModified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastModified>
  <LastVerified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
  <PartitionId>{string}</PartitionId>
  <PoweredOn>TRUE | FALSE</PoweredOn>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedCapacity>{64-bit integer}</ReservedCapacity>
  <State>
    NORMAL | FOREIGN | IMPORT_IN_PROGRESS | IMPORT_PENDING | LOST
  </State>
  <StorageDomainMemberId>{string}</StorageDomainMemberId>
  <TotalCapacity>{64-bit integer}</TotalCapacity>
  <Type>NEARLINE | ONLINE</Type>
  <UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.

Parameter	Description
Health	Whether the pool is in good health or degraded. Values: OK , DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE , FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK , NORMAL , FOREIGN , IMPORT_IN_PROGRESS , IMPORT_PENDING , LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request changes the partition the pool with the UUID c62cf569-5ff7-45cc-bad3-e2a6bd44760a is assigned to "Partition1".

```
PUT http://blackpearl-hostname/_rest_/pool/c62cf569-5ff7-45cc-bad3-
e2a6bd44760a/?partition_id=Partition1 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
<AvailableCapacity>10000</AvailableCapacity>
<BucketId/>
<Guid>c8c478ea-7d5e-48d0-97fb-42ed1983cfbd</Guid>
<Health>OK</Health>
<Id>c62cf569-5ff7-45cc-bad3-e2a6bd44760a</Id>
<LastAccessed/>
<LastModified/>
<LastVerified/>
<Mountpoint>/mountpoint-0</Mountpoint>
<Name>pool0</Name>
<PartitionId>ba807ff5-ed78-444e-badf-41d5c497e0b5</PartitionId>
<PoweredOn>TRUE</PoweredOn>
<Quiesced>NO</Quiesced>
<ReservedCapacity>0</ReservedCapacity>
<State>NORMAL</State>
<StorageDomainMemberId/>
<TotalCapacity>30000</TotalCapacity>
<Type>NEARLINE</Type>
<UsedCapacity>20000</UsedCapacity>
```

```
</Data>
```

MODIFY POOL PARTITION

Description

Modify the name of the specified pool partition.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool_partition/{pool_partition_id}/[?name={string}]
```

To determine the UUID for a pool partition, see [Get Pool Partitions on page 633](#).

Request Parameters

Parameter	Description	Required
name	The new name to assign to the pool partition.	no

Responses

Response Elements

```
<Data>
  <Id>{string}</Id>
  <Name>{string}</Name>
  <Type>NEARLINE | ONLINE</State>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Id	The UUID for the partition.
Name	The name of the partition.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)

Example

Sample Request

This request changes the name of the pool partition from 'p1' to 'MoviePartition'.

```
PUT http://blackpearl-hostname/_rest_/pool_partition/p1/?name=MoviePartition
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Id>2c6e4f83-c3d6-4a7b-bc1c-069e6ac7670f</Id>
  <Name>MoviePartition</Name>
  <Type>NEARLINE</Type>
</Data>
```

MODIFY POOLS

Description

Sets all pools to unquiesced (**NO**), or pending quiesce (**PENDING**) state. The gateway changes the state from pending quiesce (**PENDING**) to quiesced (**YES**).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?quiesced=NO|PENDING
```

Request Parameters

Parameter	Description	Required
quiesced	Request that the gateway prepare all pools to go into an inactive state (PENDING) or return all pools to an active state (NO). Values: NO, PENDING	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 409: Conflict (illegal transition)

Example

Sample Request

This request moves all pools out of the quiesced state.

```
PUT http://blackpearl-hostname/_rest_/pool/?quiesced=NO HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

VERIFY POOL

Description

Verifies the data in one pool. Pool verification is periodically done automatically in the background.

Use this request to force a verification to be scheduled immediately for the specified pool, without having to wait for the automatic, periodic scheduling.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/{pool UUID or other unique attribute}?operation=VERIFY[&priority=URGENT|HIGH|NORMAL|LOW]
```

To determine the UUID for a pool, see [Get Pools on page 635](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to verify a pool. Value: VERIFY	yes
priority	The priority for processing this task. This determines the resources assigned and the processing order. Verify jobs can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE | FALSE</AssignedToStorageDomain>
  <AvailableCapacity>{64-bit integer}</AvailableCapacity>
  <BucketId>{string}</BucketId>
  <Guid>{string}</Guid>
  <Health>OK | DEGRADED</Health>
  <Id>{string}</Id>
  <LastAccessed>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastAccessed>
  <LastModified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastModified>
  <LastVerified>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastVerified>
  <Mountpoint>/{string}</Mountpoint>
  <Name>{string}</Name>
  <PartitionId>{string}</PartitionId>
  <PoweredOn>TRUE | FALSE</PoweredOn>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedCapacity>{64-bit integer}</ReservedCapacity>
  <State>
    NORMAL | FOREIGN | IMPORT_IN_PROGRESS | IMPORT_PENDING | LOST
  </State>
  <StorageDomainMemberId>{string}</StorageDomainMemberId>
  <TotalCapacity>{64-bit integer}</TotalCapacity>
  <Type>NEARLINE | ONLINE</Type>
  <UsedCapacity>{64-bit integer}</UsedCapacity>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time an object in the pool was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. Values: BLANK, NORMAL, FOREIGN, IMPORT_IN_PROGRESS, IMPORT_PENDING, LOST . State on page 600 .
StorageDomain MemberId	The UUID for the storage domain member.

Parameter	Description
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.

Example

Sample Request

This request verifies the pool with the UUID fd286064-f6d0-4a0a-be4b-5e0dd9a5972f.

```
PUT http://blackpearl-hostname/_rest_/pool/fd286064-f6d0-4a0a-be4b-5e0dd9a5972f/?operation=VERIFY HTTP/1.1
```

Sample Response

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableCapacity>10000</AvailableCapacity>
  <BucketId/>
  <Guid>5bfa9aca-264c-4b0e-87bd-8be9bab71d3d</Guid>
  <Health>OK</Health>
  <Id>fd286064-f6d0-4a0a-be4b-5e0dd9a5972f</Id>
  <LastAccessed/>
  <LastModified/>
  <LastVerified/>
  <Mountpoint>/mountpoint-0</Mountpoint>
  <Name>pool0</Name>
  <PartitionId/>
  <PoweredOn>TRUE</PoweredOn>
  <Quiesced>NO</Quiesced>
  <ReservedCapacity>0</ReservedCapacity>
  <State>NORMAL</State>
  <StorageDomainMemberId/>
  <TotalCapacity>30000</TotalCapacity>
  <Type>NEARLINE</Type>
  <UsedCapacity>20000</UsedCapacity>
</Data>
```

VERIFY POOLS

Description

Verifies the data in all pools. Pool verification is periodically done automatically in the background.

Use this request to force a verification to be scheduled immediately for all eligible pools, without having to wait for the automatic, periodic scheduling.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/pool/?operation=VERIFY
[&priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to verify all pools. Value: VERIFY	yes
priority	The priority for processing this task. This determines the resources assigned and the processing order. Verify jobs can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no

Responses

Response Elements

The operation returns status only.

Notable status code:

- 204: No Content (success)

Example

Sample Request

This request verifies all pools on the BlackPearl gateway.

```
PUT http[s]://blackpearl-hostname/_rest_/pool/?operation=VERIFY HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CHAPTER 16 - TAPE LIBRARY AND COMPONENT OPERATIONS

This chapter provides detailed information about operations you can perform on tapes, tape libraries, tape drives, and tape partitions.

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CANCEL EJECT OF TAPE

Description

Cancels a pending tape eject on the specified tape. If the eject is in process, it cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or
barcode}?operation=CANCEL_EJECT
```

To determine the UUID for a tape, see [Get Tapes](#) on page 770.

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel eject. Value: CANCEL_EJECT	yes

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
  <PreviousState>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
  </PreviousState>

```

```

<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorage Domain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.

Parameter	Description
DescriptionFor Identification	The LTF5 Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued for eject or the eject is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.

Parameter	Description
State	<p>The status of the tape. Values:</p> <ul style="list-style-type: none"> • NORMAL — The tape is ready for use. • AUTO_COMPACTON_IN_PROGRESS — The tape is in the process of having unused tape space, due to deleted objects that still reside on a tape, reclaimed. • BAD — The tape has been identified as bad due to I/O errors or too many write cycles. • BAR_CODE_MISSING — The barcode for the tape is unknown or missing. • CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION — The tape is write-protected and cannot be formatted. • DATA_CHECKPOINT_FAILURE — The tape should have data on it that is recognizable to the BlackPearl gateway, but the gateway could not verify that the data on the tape is at the correct checkpoint or there was an error rolling back to a checkpoint. • DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY — The tape should have data on it that is recognizable to the BlackPearl gateway, but the gateway could not verify that the data on the tape is at the correct checkpoint or there was an error rolling back to a checkpoint because the tape is read only. • DATA_CHECKPOINT_MISSING — The tape should have data on it that is recognizable to the BlackPearl gateway, but the checkpoint containing the data could not be found on the tape. • EJECT_FROM_EE_PENDING — The tape is in the Entry/Exit (E/E) pool waiting to be physically ejected.

Parameter	Description
State (continued)	<ul style="list-style-type: none"> • EJECT_TO_EE_IN_PROGRESS — The tape is currently being moved to the E/E pool. • EJECTED — The tape was ejected from the library and is not physically present. • FOREIGN — A tape from another BlackPearl gateway. This data must be copied into a bucket on this gateway before it is accessible. • FORMAT_IN_PROGRESS — The tape is currently being formatted. • FORMAT_PENDING — A format was requested for the tape but has not yet started. • IMPORT_IN_PROGRESS — A FOREIGN tape is in the process of being imported into a bucket. • IMPORT_PENDING — A FOREIGN tape is queued to be imported into a bucket. • INCOMPATIBLE — The tape type is not supported by the BlackPearl gateway. • LOST — The tape was removed from the tape library without first exporting it from a bucket. • LTFS_WITH_FOREIGN_DATA — An LTFS formatted tape not associated with a BlackPearl gateway. This data must be copied into a bucket on this gateway using a raw import before it is accessible. • OFFLINE — The tape is in the E/E pool and requires user confirmation to move it to the storage pool and make it online. • ONLINE_IN_PROGRESS — The tape is in the process of being moved from the E/E pool to the storage pool. When complete, its state will change to PENDING_INSPECTION. • ONLINE_PENDING — The tape was OFFLINE and received user confirmation to bring it online, but this action has not yet begun. • PENDING_INSPECTION — The tape has not yet been inspected. • RAW_IMPORT_IN_PROGRESS — The data on an LTFS formatted tape not associated with a BlackPearl gateway is being imported into the BlackPearl gateway. • RAW_IMPORT_PENDING — An LTFS formatted tape not associated with a BlackPearl gateway is queued to have the data it contains imported into the BlackPearl gateway. • SERIAL_NUMBER_MISMATCH — The tape serial number does not match the one stored in the BlackPearl gateway. • UNKNOWN — The tape contains unknown data or is otherwise unavailable to the BlackPearl gateway.
StorageDomain MemberId	The UUID for the storage domain member.

Parameter	Description
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request cancels the pending tape eject of the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=CANCEL_EJECT HTTP/1.1
```

Sample Response

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>normal</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <State>PENDING_INSPECTION</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>2408088338432</TotalRawCapacity>
  <Type>LT06</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

CANCEL EJECT OF TAPES

Description

Cancel all pending tape ejects. Ejects that are in process are not canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=CANCEL_EJECT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel eject. Value: CANCEL_EJECT	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request cancels all pending tape ejects.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=CANCEL_EJECT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```


CANCEL FORMAT OF TAPE

Description

Cancel a pending format on the specified tape. If the format has already begun, it cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or  
barcode}/?operation=CANCEL_FORMAT
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel format. Value: CANCEL_FORMAT	yes

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
  <PreviousState>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
  </PreviousState>

```

```

<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.

Parameter	Description
DescriptionForIdentification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.

Parameter	Description
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request cancels the pending tape format of the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=CANCEL_FORMAT HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <State>PENDING_INSPECTION</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>2408088338432</TotalRawCapacity>
  <Type>LTO6</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

CANCEL FORMAT OF TAPES

Description

Cancel all pending tape formats. Formats that have already begun are not canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=CANCEL_FORMAT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel format. Value: CANCEL_FORMAT	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request cancels all pending tape formats.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=CANCEL_FORMAT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CANCEL IMPORT OF FOREIGN TAPE

Description

Cancels the pending import of the specified tape associated with a different BlackPearl gateway. If the import is in process, it cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or
barcode}?operation=CANCEL_IMPORT
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel importing. Value: CANCEL_IMPORT	yes

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
```



```

<PreviousState>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionForIdentification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request cancels the pending import of the tape with the UUID f45cfc34-b72c-4986-ba58-53d02ed3f399.

```
PUT http://blackpearl-hostname/_rest_/tape/f45cfc34-b72c-4986-ba58-53d02ed3f399/?operation=CANCEL_IMPORT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>10000</AvailableRawCapacity>
  <BarCode>018665L5</BarCode>
  <BucketId/>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>f45cfc34-b72c-4986-ba58-53d02ed3f399</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>6391abc1-4136-496e-a7a1-0d1994b84129</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber/>
  <State>PENDING_INSPECTION</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>1425000103936</TotalRawCapacity>
  <Type>LT05</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

CANCEL IMPORT OF FOREIGN TAPES

Description

Cancel all pending imports of tapes associated with other BlackPearl gateways. Imports that have already begun cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=CANCEL_IMPORT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel importing. Value: CANCEL_IMPORT	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request cancels pending imports for all foreign tapes.

```
GET http://blackpearl-hostname/_rest_/tape?operation=CANCEL_IMPORT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CANCEL ONLINE OF TAPE

Description

Cancels the onlining, or movement of the specified tape from the entry/exit pool to the storage pool. If the move is in process, it cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or
barcode}/?operation=CANCEL_ONLINE
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel onlining. Value: CANCEL_ONLINE	yes

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
```

```

<Id>{string}</Id>
<LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>

```

```

<VerifyPending>
  CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
</VerifyPending>
<WriteProtected>TRUE | FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionForIdentification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN

Parameter	Description
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request cancels the pending onlining of the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=CANCEL_ONLINE HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
<AvailableRawCapacity>2408088338432</AvailableRawCapacity>
<BarCode>018675L6</BarCode>
<BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
<DescriptionForIdentification/>
<EjectDate/>
<EjectLabel/>
<EjectLocation/>
<EjectPending/>
<FullOfData>FALSE</FullOfData>
<Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
<LastAccessed/>
<LastCheckpoint/>
<LastModified/>
<LastVerified/>
<PartiallyVerifiedEndOfTape/>
<PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
<PreviousState/>
<Role>NORMAL</Role>
<SerialNumber>HP-AE1WRUY90E</SerialNumber>
<State>OFFLINE</State>
```

```

<StorageDomainMemberId/>
<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>2408088338432</TotalRawCapacity>
<Type>LTO6</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
</Data>

```

CANCEL ONLINE OF TAPES

Description

Cancels the onlining, or movement of all tapes from the entry/exit pool to the storage pool. Onlining that is in process cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=CANCEL_ONLINE
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel onlining. Value: CANCEL_ONLINE	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request cancels pending onlining for all tapes.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=CANCEL_ONLINE HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

Cancel Test Tape Drive

Description

Cancels a pending tape drive test.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_drive/{drive UUID or other unique attribute}/?operation=CANCEL_TEST
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to cancel a pending tape drive test. Value: CANCEL_TEST	yes

Responses

Response Elements

```
<Data>
  <CleaningRequired>TRUE | FALSE</CleaningRequired>
  <ErrorMessage>{string}</ErrorMessage>
  <ForceTapeRemoval>TRUE | FALSE</ForceTapeRemoval>
  <Id>{string}</Id>
  <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
  <MaxFailedTapes>{64-bit integer}</MaxFailedTapes>
  <MfgSerialNumber>{string}</MfgSerialNumber>
  <MinimumTaskPriority>ANY | LOW | NORMAL | HIGH | URGENT</MinimumTaskPriority>
  <PartitionId>{string}</PartitionId>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedTaskType>ANY | READ | WRITE | MAINTENANCE</ReservedTaskType>
```

```

<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<TapeId>{string}</TapeId>
<Type>{string}</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE , FALSE
ErrorMessage	A description of any current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE , FALSE
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTask Priority	The minimum priority task for which the drive is reserved. Values: ANY , LOW , NORMAL , HIGH , URGENT

Parameter	Description
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY , READ , WRITE , MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Cancel Test Tape Drive on page 689 .
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , TS1140 , TS1150 , TS1155 , TS1160 , UNKNOWN

Example

Sample Request

This request cancels a pending tape drive test to the drive with UUID a3f6fb78-19ef-409f-b0c1-2bd9fc69fe70.

```
PUT http[s]://blackpearl-hostnam/_rest_/tape_drive/a3f6fb78-19ef-409f-b0c1-2bd9fc69fe70/?operation=cancel_test HTTP/1.1
```

Sample Response

```
<Data>
  <CleaningRequired>>false</CleaningRequired>
  <ErrorMessage/>
  <ForceTapeRemoval>>false</ForceTapeRemoval>
  <Id>a3f6fb78-19ef-409f-b0c1-2bd9fc69fe70</Id>
  <LastCleaned/>
  <MaxFailedTapes>3</MaxFailedTapes>
  <MfgSerialNumber/>
  <MinimumTaskPriority/>
  <PartitionId>1651288a-fd0d-43be-8cc5-1e7c6bbe55f</PartitionId>
  <Quiesced>NO</Quiesced>
  <ReservedTaskType>ANY</ReservedTaskType>
  <SerialNumber>td1</SerialNumber>
```

```
<State>NORMAL</State><TapeId/>
<Type>LT05</Type>
</Data>
```

CANCEL VERIFY OF TAPE

Description

Cancels a pending tape verification on the specified tape. If the verify has already begun, it cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or
barcode}?operation=CANCEL_VERIFY
```

To determine the UUID for a tape, see [Get Tapes](#) on page 770.

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel verify. Value: CANCEL_VERIFY	yes

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
```



```

<EjectDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
<EjectLabel>{string}</EjectLabel>
<EjectLocation>{string}</EjectLocation>
<EjectPending>{ YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
<FullOfData>TRUE|FALSE</FullOfData>
<Id>{string}</Id>
<LastAccessed>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  { YYYY-MM-DDThh:mm:ss.xxxZ }
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>

```

```

<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionForIdentification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.

Parameter	Description
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.

Parameter	Description
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request cancels the pending verify of the tape with the UUID 70a3785d-4b83-4344-89dd-8485cc2aa6d4.

```
PUT http://blackpearl-hostname/_rest_/tape/70a3785d-4b83-4344-89dd-8485cc2aa6d4/?operation=CANCEL_VERIFY HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
<AvailableRawCapacity>2408088338432</AvailableRawCapacity>
<BarCode>018675L6</BarCode>
<BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
<DescriptionForIdentification/>
<EjectDate/>
<EjectLabel/>
<EjectLocation/>
<EjectPending/>
<FullOfData>FALSE</FullOfData>
```

```

<Id>70a3785d-4b83-4344-89dd-8485cc2aa6d4</Id>
<LastAccessed/>
<LastCheckpoint/>
<LastModified/>
<LastVerified/>
<PartiallyVerifiedEndOfTape/>
<PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
<PreviousState/>
<Role>NORMAL</Role>
<SerialNumber>HP-AE1WRUY90E</SerialNumber>
<State>OFFLINE</State>
<StorageDomainMemberId/>
<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>2408088338432</TotalRawCapacity>
<Type>LTO6</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
</Data>

```

CANCEL VERIFY OF TAPES

Description

Cancels all pending tape verifications. Verifications that have already begun cannot be canceled.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=CANCEL_VERIFY
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is cancel verify. Value: CANCEL_VERIFY	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request cancels pending onlining for all tapes.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=CANCEL_ONLINE HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAN TAPE DRIVE

Description

Clean the specified tape drive.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_drive/{tape_drive_id}/?operation=CLEAN
```

To determine the UUID for a tape drive, see [Get Tape Drives on page 746](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to clean the drive. Value: CLEAN	yes

Responses

Response Elements

```

<Data>
  <ErrorMessage>{string}</ErrorMessage>
  <CleaningRequired>TRUE|FALSE</CleaningRequired>
  <ForceTapeRemoval>TRUE|FALSE</ForceTapeRemoval>
  <Id>{string}</Id>
  <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
  <MaxFailedTapes>{32-bit integer}</MaxFailedTapes>
  <MfgSerialNumber>{string}</MfgSerialNumber>
  <MinimumTaskPriority>
    ANY|LOW|NORMAL|HIGH|URGENT
  </MinimumTaskPriority>
  <PartitionId>{string}</PartitionId>
  <Quiesced>NO|PENDING|YES</Quiesced>
  <ReservedTaskType>ANY|READ|WRITE|MAINTENANCE</ReservedTaskType>
  <SerialNumber>{string}</SerialNumber>
  <State>
    ERROR|NORMAL|
    NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES|      OFFLINE
  </State>
  <TapeId>{string}</TapeId>
  <Type>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|TS1140|TS1150|TS1155|TS1160
    |UNKNOWN
  </Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.

Parameter	Description
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE, FALSE
ErrorMessage	A description of any current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE, FALSE
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTaskPriority	The minimum priority task for which the drive is reserved. Values: ANY, LOW, NORMAL, HIGH, URGENT
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY, READ, WRITE, MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Values: ERROR, NORMAL, NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES, OFFLINE
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN

Example

Sample Request

This request cleans the tape drive with the UUID ab9146b8-feca-4023-8c45-0d60268ad115.

```
PUT http://blackpearl-hostname/_rest_/tape_drive/ab9146b8-feca-4023-8c45-0d60268ad115/?operation=CLEAN HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CleaningRequired>FALSE</CleaningRequired>
  <ErrorMessage/>
  <ForceTapeRemoval>FALSE</ForceTapeRemoval>
  <Id>ab9146b8-feca-4023-8c45-0d60268ad115</Id>
  <LastCleaned/>
  <MaxFailedTapes>3</MaxFailedTapes>
  <MfgSerialNumber>90WT008323</MfgSerialNumber>
  <MinimumTaskPriority>ANY</MinimumTaskPriority>
  <PartitionId>703a0ad2-a86d-4d2a-97c9-56c2a59a718f</PartitionId>
  <Quiesced>NO</Quiesced>
  <ReservedTaskType>ANY</ReservedTaskType>
  <SerialNumber>68001883</SerialNumber>
  <State>NORMAL</State>
  <TapeId/>
  <Type>UNKNOWN</Type>
</Data>
```

CREATE TAPE DENSITY DIRECTIVE

Description

Configure formatting tapes of a particular type at the specified density for the specified partition. The density specified is the tape drive type that the tape should be compatible with. The tape will be formatted at the highest density supported by the specified tape drive.

Note: This request is for TS11x0 data tapes only. LTO tapes can only be written at the density that they are manufactured for, and cleaning tapes cannot be formatted.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/tape_density_
directive/?density=TS1140|TS1150|TS1155|TS1160& partition_id={string}&tape_type=TS_
JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|
```

Request Parameters

Parameter	Description	Required
density	The tape drive type that the density should be formatted to match. Values: TS1140, TS1150, TS1155, TS1160	yes
partition_id	The UUID or other unique attribute for the partition.	yes
tape_type	The tape format and generation of the tape cartridge. Values: TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ	yes

Responses

Response Elements

```
<Data>
  <Density>TS1140|TS1150|TS1155|TS1160</Density>
  <Id>{string}</Id>
  <PartitionId>{string}</PartitionId>
  <TapeType>
    TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|
    UNKNOWN|FORBIDDEN
  </TapeType>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
Density	The tape drive type that the density was formatted to match. Values: TS1140, TS1150, TS1155, TS1160, UNKNOWN

Parameter	Description
Id	The UUID for the tape density directive.
TapeType	The tape format and generation of the tape cartridge. Values: TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, UNKNOWN, FORBIDDEN

Example

Sample Request

This request configures 3592 JK tapes used in the partition with UUID f8a7cdb9-3436-484a-9404-212045106738 to be formatted with the density used by TS1140 technology drives.

```
POST http://blackpearl-hostname/_rest_/tape_density_
directive/?density=TS1140&partition_id=f8a7cdb9-3436-484a-9404-212045106738&tape_
type=TS_JK HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<Density>TS1140</Density>
```

```
<Id>78e4234f-8f3d-42d3-9ae1-817e89d993bc</Id>
```

```
<PartitionId>f8a7cdb9-3436-484a-9404-212045106738</PartitionId>
```

```
<TapeType>TS_JK</TapeType>
```

```
</Data>
```

Create a Drive Dump

Description

Creates a drive dump for use in troubleshooting.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_drive/{drive UUID or other unique attribute}/?operation=DUMP
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to create a drive dump. Value: DUMP	yes

Responses

Response Elements

```
<Data>
  <CleaningRequired>TRUE | FALSE</CleaningRequired>
  <ErrorMessage>{string}</ErrorMessage>
  <ForceTapeRemoval>TRUE | FALSE</ForceTapeRemoval>
  <Id>{string}</Id>
  <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
  <MaxFailedTapes>{64-bit integer}</MaxFailedTapes>
  <MfgSerialNumber>{string}</MfgSerialNumber>
  <MinimumTaskPriority>ANY | LOW | NORMAL | HIGH | URGENT</MinimumTaskPriority>
  <PartitionId>{string}</PartitionId>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedTaskType>ANY | READ | WRITE | MAINTENANCE</ReservedTaskType>
```

```

<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<TapeId>{string}</TapeId>
<Type>{string}</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE , FALSE
ErrorMessage	A description of any current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE , FALSE
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTask Priority	The minimum priority task for which the drive is reserved. Values: ANY , LOW , NORMAL , HIGH , URGENT

Parameter	Description
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY , READ , WRITE , MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Create a Drive Dump on page 704 .
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , TS1140 , TS1150 , TS1155 , TS1160 , UNKNOWN

Example

Sample Request

This request creates a drive dump file for the drive with UUID a3f6fb78-19ef-409f-b0c1-2bd9fc69fe70.

```
PUT http[s]://blackpearl-hostnam/_rest_/tape_drive/a3f6fb78-19ef-409f-b0c1-2bd9fc69fe70/?operation=dump HTTP/1.1
```

Sample Response

```
<Data>
  <CleaningRequired>>false</CleaningRequired>
  <ErrorMessage/>
  <ForceTapeRemoval>>false</ForceTapeRemoval>
  <Id>a3f6fb78-19ef-409f-b0c1-2bd9fc69fe70</Id>
  <LastCleaned/>
  <MaxFailedTapes>3</MaxFailedTapes>
  <MfgSerialNumber/>
  <MinimumTaskPriority/>
  <PartitionId>1651288a-fd0d-43be-8cc5-1e7c6bbe55f</PartitionId>
  <Quiesced>NO</Quiesced>
  <ReservedTaskType>ANY</ReservedTaskType>
  <SerialNumber>td1</SerialNumber>
```

```
<State>NORMAL</State><TapeId/>
<Type>LT05</Type>
</Data>
```

DELETE PERMANENTLY LOST TAPE

Description

Deletes the specified tape which has been permanently lost from the BlackPearl database. Any data lost as a result is marked degraded to trigger a rebuild.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape/{tape UUID, barcode, or other unique attribute}/
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape with the UUID 0051aae2-1bcc-4c99-a7d3-1d1724a8b8d8.

```
DELETE http://blackpearl-hostname/_rest_/tape/0051aae2-1bcc-4c99-a7d3-1d1724a8b8d8/
HTTP/1.1
```

Sample Response

HTTP/1.1 204 No Content

DELETE TAPE DENSITY DIRECTIVE

Description

Delete the specified tape density directive.

Note: Tape density directives only apply to TS11x0 technology data tapes.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_density_directive/{tape density directive UUID}/
```

To determine the UUID for a tape density directive, see [Get Tape Density Directives on page 740](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape density directive with the UUID a199c125-6c52-4a73-ae7d-9f3dbab0b746.

```
DELETE http://blackpearl-hostname/_rest_/tape_density_directive/a199c125-6c52-4a73-ae7d-9f3dbab0b746/ HTTP/1.1
```


Sample Response

HTTP/1.1 204 No Content

DELETE TAPE DRIVE

Description

Deletes the specified offline tape drive. This request is useful when a tape drive is permanently removed from a partition.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_drive/{tape drive UUID or other unique attribute}/
```

To determine the UUID for a tape drive, see [Get Tape Drives on page 746](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape drive with the UUID 63d3dbd4-baa8-4e8f-a40d-42a6c3e3bf95.

```
DELETE http://blackpearl-hostname/_rest_/tape_drive/63d3dbd4-baa8-4e8f-a40d-42a6c3e3bf95/ HTTP/1.1
```

Sample Response

HTTP/1.1 204 No Content

DELETE TAPE FAILURE

Description

Deletes the specified tape failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_failure/{tape failure UUID or other unique attribute}/
```

To determine the UUID for a tape failure, see [Get Tape Failures](#) on page 750.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape failure with the UUID 2d4a2794-8617-4cdc-9e8f-0530fa1abff2.

```
DELETE http://blackpearl-hostname/_rest_/tape_failure/2d4a2794-8617-4cdc-9e8f-0530fa1abff2/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE TAPE PARTITION

Description

Deletes the specified offline tape partition from the BlackPearl gateway configuration. Any tapes in the partition that have data on them are disassociated from the partition. Any tapes without data on them and all tape drives associated with the partition are deleted from the BlackPearl gateway configuration. This request is useful if the partition should never have been associated with the BlackPearl gateway or if the partition was deleted from the library.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_partition/{tape partition UUID or other unique attribute}/
```

To determine the UUID for a tape partition, see [Get Tape Partition on page 758](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape partition with the UUID 30c442905-d0ec-4e72-b7ed-07d520fc8b86.

```
DELETE http://blackpearl-hostname/_rest_/tape_partition/30c442905-d0ec-4e72-b7ed-07d520fc8b86/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE TAPE PARTITION FAILURE

Description

Deletes the specified tape partition failure.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_partition_failure/{tape partition
UUID or other unique attribute}/
```

To determine the UUID for a tape partition failure, see [Get Tape Partition Failures on page 762](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape partition failure for the partition with the UUID a92bd5a6-eb56-44c8-9a08-1f896c3eab0e.

```
DELETE http://blackpearl-hostname/_rest_/tape_partition_failure/a92bd5a6-eb56-44c8-
9a08-1f896c3eab0e/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

EJECT TAPE

Description

Queue the specified tape to be ejected. If a tape is in use, it is ejected once it is no longer in use.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}?operation=EJECT
[&eject_label={string}][&eject_location={string}]
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is eject. Value: EJECT	yes
eject_label	Enter information to assist in the handling of the tape.	no
eject_location	Enter information to describe where the ejected tape can be located.	no

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
```

```

<Id>{string}</Id>
<LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>

```

```

<VerifyPending>
  CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
</VerifyPending>
<WriteProtected>TRUE | FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN

Parameter	Description
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request queues the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e to be ejected.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=EJECT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```

  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <State>NORMAL</State>

```

```

<StorageDomainMemberId/>
<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>2408088338432</TotalRawCapacity>
<Type>LTO6</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
</Data>

```

EJECT TAPES

Description

Ejects all tapes that are eligible to be ejected. Tapes are not eligible for ejection if `mediaEjectionAllowed=FALSE` for the storage domain (see [media_ejection_allowed](#) on page 549). If a tape is in use, it is ejected once it is no longer in use.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=EJECT[&eject_label={string}]
[&eject_location={string}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is eject. Value: EJECT	yes
eject_label	Enter information to assist in the handling of the tapes.	no
eject_location	Enter information to describe where the ejected tapes can be located.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request queues all eligible tapes to be ejected.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=EJECT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

EJECT STORAGE DOMAIN

Description

Ejects all eligible tapes within the specified storage domain. Tapes are not eligible for ejection if `mediaEjectionAllowed=FALSE` for the storage domain (see [media_ejection_allowed](#) on page 549). If a tape is being used for a job, it is ejected once it is no longer in use.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=EJECT&storage_domain={string}
[&bucket_id={string}][&eject_label={string}][&eject_location={string}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is eject. Value: EJECT	yes
storage_domain	The name, UUID, or other unique attribute for the storage domain from which to eject tapes.	yes
bucket_id	The UUID, name, or other unique attribute for a bucket from which to eject tapes. If a bucket is specified, the tapes in the storage domain which contain data for the specified bucket are ejected even if they contain data for other buckets.	no
eject_label	Enter information to assist in the handling of the tapes.	no
eject_location	Enter information to describe where the ejected tapes can be located.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request queues all eligible tapes in the storage domain with UUID 2a48ae2c-5c0e-47c4-a800-ec54aa4f7abc to be ejected.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=EJECT&storage_domain_id=2a48ae2c-5c0e-47c4-a800-ec54aa4f7abc HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

EJECT STORAGE DOMAIN BLOBS

Description

Ejects all tapes that are eligible to be ejected within the specified storage domain for the included blob payload. Tapes are not eligible for ejection if `secure_media_allocation=true` for the storage domain (see [secure_media_allocation on page 549](#)). If a tape is in use, it is ejected once it is no longer in use.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=EJECT&blobs&bucket_id={string}&storage_domain_id={string} [&eject_label={string}] [&eject_location={string}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is eject. Value: EJECT	yes
blobs	When included, the request fails if the request payload is not also included.	yes
bucket_id	The UUID, name, or other unique attribute for a bucket from which to eject tapes. The tapes in the storage domain which contain data for the specified bucket are ejected even if they contain data for other buckets.	yes
storage_domain	The name, UUID, or other unique attribute for the storage domain from which to eject tapes.	yes
eject_label	Enter information to assist in the handling of the tapes.	no
eject_location	Enter information to describe where the ejected tapes can be located.	no

Request Elements

An XML payload, formatted as follows, must be sent to specify object parts to eject:

```
<Objects>
  <Object Name="{string}" Version_Id="{string}/>
</Objects>
```

where the parameters are defined as follows:

Parameter	Description	Required
Objects	A container for the list of objects.	yes
Object	The container for information about one object or object part.	yes
Name	The name of an object to eject. All objects in the list must be in the same bucket.	yes
Version_Id	The UUID for the version of the object.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)
- 400: Bad Request (request payload not included)

Example

Sample Request

This request queues all eligible tapes in the storage domain with UUID 2a48ae2c-5c0e-47c4-a800-ec54aa4f7abc, assigned to “bucket1” and containing pieces of the object “Object1”, to be ejected.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=EJECT&blobs&bucket_
id=bucket1&storage_domain_id=2a48ae2c-5c0e-47c4-a800-ec54aa4f7abc HTTP/1.1
<Objects>
  <Object Name="Object1">
</Objects>
```

Sample Response

```
HTTP/1.1 204 No Content
```

FORCE TAPE ENVIRONMENT REFRESH

Description

Forces the BlackPearl gateway’s information about the tape environment to refresh. The tape environment is automatically updated based on tape environment change events. This operation updates the tape environment even if no change in the environment was detected since the last update.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_environment/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request updates the tape environment.

```
PUT http://blackpearl-hostname/_rest_/tape_environment/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

FORMAT TAPE

Description

Format the specified tape. Tapes are not eligible if they have a state of **EJECTED**, **LOST**, **EJECT_PENDING**, or **OFFLINE**. In addition, the `force` parameter must be used to format a tape that contains data written by another BlackPearl gateway, to format a tape before it is inspected, to format a tape that has already been formatted by a BlackPearl gateway, or to format a tape that currently has reads or writes scheduled. If the tape contains data written by the current BlackPearl gateway, you must delete the objects and buckets before formatting the tape even if the `force` parameter is included.



CAUTION Any data on the tape is lost during the format operation.

Note: The `force` parameter is not required to format a tape with the state **UNKNOWN** (see [State](#) on page 664).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/?operation=FORMAT
[&force]
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is format. Value: FORMAT	yes
force	If included, the tape is formatted even if it contains data unless the data was written by the current BlackPearl gateway. CAUTION Any data on the tape is lost during the format operation.	no

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
```



```
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
```

```

<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.

Parameter	Description
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.

Parameter	Description
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request queues the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e to be formatted.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=FORMAT HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <State>FORMAT_PENDING</State>
  <TotalRawCapacity>2408088338432</TotalRawCapacity>
  <Type>LTO6</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

FORMAT TAPES

Description

Format all eligible tapes. Tapes are not eligible if they have a state of **EJECTED**, **LOST**, **EJECT_PENDING**, or **OFFLINE**. In addition, the `force` parameter must be used to format a tape that contains data written by a BlackPearl gateway, to format a tape before it is inspected, to format a tape that has already been formatted by a BlackPearl gateway, or to format a tape that currently has reads or writes scheduled. If a tape contains data written by the current BlackPearl gateway, you must delete the objects and buckets before formatting the tape even if the `force` parameter is included.



CAUTION Any data on the tape is lost during the format operation.

Note: The `force` parameter is not required to format a tape with the state **UNKNOWN** (see [State](#) on page 664).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=FORMAT [&force]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is format. Value: FORMAT	yes
force	If included, all eligible tapes are formatted even if they contain data, unless the data was written by the current BlackPearl gateway. CAUTION Any data on the tape media is lost during the format operation.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request queues all unformatted tapes to be formatted.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=FORMAT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET PHYSICAL PLACEMENT FOR OBJECT PARTS ON TAPE

Description

Get the list of object parts on the specified tape. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/?operation=GET_PHYSICAL_PLACEMENT
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to get physical placement. Value: GET_PHYSICAL_PLACEMENT	yes
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of tape drives to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first tape drive to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```
<Data>
  <Object Bucket="{string}" Id="{string}" Latest="TRUE|FALSE"
    Length="{64-bit integer}" Name="{string}"
    Offset="{64-bit integer}" VersionId="{string}">
    ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
Object	The container for information about one object.
Bucket	The name of the bucket containing the object.
Id	The UUID for the object.

Parameter	Description
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.

Example

Sample Request

This request returns a list of all object parts on the tape with the UUID 5e6d27f7-7261-4ad9-a2f3-c89791c1f7ff'.

```
GET http://blackpearl-hostname/_rest_/tape/5e6d27f7-7261-4ad9-a2f3-
c89791c1f7ff/?operation=GET_PHYSICAL_PLACEMENT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<Object Bucket="bucket_name"
  Id="e846bc8d-2181-4cc5-a4aa-c09dcebb0133" Latest="true"
  Length="10 "Name="o1" Offset="0"
  VersionId="01a33693-ba75-4668-a2c9-89fa423b219f">
<Object Bucket="bucket_name"
  Id="3cf1c091-2c1a-469d-9880-6ec3fed298fd" Latest="true"
  Length="10" Name="o2" Offset="0"
  VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
```

```
</Data>
```

GET TAPE

Description

Get information about the specified tape.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
```

```

<PreviousState>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
PartiallyVerifiedEndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss. xxxZ.
PartitionId	The UUID for the partition to which to the tape belongs.
PreviousState	The previous status of the tape. See State on page 664 .
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape cartridge.
State	The status of the tape. See State on page 664 .
StorageDomainMemberId	The UUID for the storage domain member.
TakeOwnershipPending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE – The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE – The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request retrieves information about the tape with the UUID 0571b314-7f9d-4a9f-9e4b-98252c7b5266.

```
GET http://blackpearl-hostname/_rest_/tape/0571b314-7f9d-4a9f-9e4b-98252c7b5266/  
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>  
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>  
  <AvailableRawCapacity>10000</AvailableRawCapacity>  
  <BarCode>018375L5</BarCode>  
  <BucketId/>  
  <DescriptionForIdentification/>  
  <EjectDate/>  
  <EjectLabel/>  
  <EjectLocation/>  
  <EjectPending/>  
  <FullOfData>FALSE</FullOfData>  
  <Id>0571b314-7f9d-4a9f-9e4b-98252c7b5266</Id>  
  <LastAccessed/>  
  <LastCheckpoint>  
    83f811df-927b-4543-8dc8-8ca2ed002fcb:3  
  </LastCheckpoint>  
  <LastModified/>  
  <LastVerified/>  
  <PartiallyVerifiedEndOfTape/>  
  <PartitionId>26ef24cd-15f7-4aa0-aead-34abed82c60b</PartitionId>  
  <PreviousState/>  
  <Role>NORMAL</Role>  
  <SerialNumber/>  
  <State>NORMAL</State>  
  <StorageDomainMemberId/>  
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>  
  <TotalRawCapacity>1425000103936</TotalRawCapacity>  
  <Type>LTO5</Type>  
  <VerifyPending/>  
  <WriteProtected>FALSE</WriteProtected>  
</Data>
```

GET TAPE DENSITY DIRECTIVE

Description

Get information about the specified tape density directive.

Note: This request is for TS11x0 data tapes only. LTO tapes can only be written at the density that they are manufactured for, and cleaning tapes cannot be formatted.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_density_directive/{tape density
directive UUID or other unique attribute}/
```

To determine the UUID for a tape density directive, see [Get Tape Density Directives on page 740](#).

Responses

Response Elements

```
<Data>
  <Density>TS1140|TS1150|TS1155|TS1160</Density>
  <Id>{string}</Id>
  <PartitionId>{string}</PartitionId>
  <TapeType>
    TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ
  </TapeType>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
Density	The tape drive type that the density was formatted to match. Values: TS1140 , TS1150 , TS1155 , TS1160
Id	The UUID for the tape density directive.

Parameter	Description
TapeType	The tape format and generation of the tape cartridge. Values: TS_JC , TS_JD , TS_JE , TS_JK , TS_JL , TS_JM , TS_JV , TS_JY , TS_JZ

Example

Sample Request

This request gets information about the tape density directive with UUID 78e4234f-8f3d-42d3-9ae1-817e89d993bc.

```
GET http://blackpearl-hostname/_rest_/tape_density_directive/78e4234f-8f3d-42d3-9ae1-817e89d993bc/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<Density>TS1140</Density>
```

```
<Id>78e4234f-8f3d-42d3-9ae1-817e89d993bc</Id>
```

```
<PartitionId>b5ae905c-c3bc-4a2c-9a1c-da93ea55042c</PartitionId>
```

```
<TapeType>TS_JK</TapeType>
```

```
</Data>
```

GET TAPE DENSITY DIRECTIVES

Description

Get information about all tape density directives.

Note: This request is for TS11x0 data tapes only. LTO tapes can only be written at the density that they are manufactured for, and cleaning tapes cannot be formatted.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_density_directive/
[?density=TS1140|TS1150|TS1155|TS1160][&last_page][&page_length={32-bit integer}]
[&page_offset={32-bit integer}][&page_start_marker={unique identifier or attribute}]
[&partition_id={string}][&tape_type=TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_
JY|TS_JZ]
```

Request Parameters

Parameter	Description	Required
density	The tape drive type that the tape density was formatted to match. Values: TS1140, TS1150, TS1155, TS1160	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of tape drives to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first tape drive to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
partition_id	The UUID for the partition.	no
tape_type	The tape format and generation of the tape cartridge. Values: TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ	no

Responses

Response Elements

```
<Data>
  <TapeDensityDirective>
    <Density>TS1140|TS1150|TS1155|TS1160</Density>
    <Id>{string}</Id>
    <PartitionId>{string}</PartitionId>
    <TapeType>
      TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ
    </TapeType>
  </TapeDensityDirective>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
TapeDensity Directive	A container for information about one tape density directive.
Density	The tape drive type that the density was formatted to match. Values: TS1140, TS1150, TS1155, TS1160
Id	The UUID for the tape density directive.
TapeType	The tape format and generation of the tape cartridge. Values: TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ

Example

Sample Request

This request gets information about all tape density directives.

```
GET http://blackpearl-hostname/_rest_/tape_density_directive/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <TapeDensityDirective>
    <Density>TS1140</Density>
    <Id>67d32a56-cbc4-43e1-9a1b-64afbb14e731</Id>
    <PartitionId>
      0e4ee22f-de59-4e4e-b053-15487fa194e4
    </PartitionId>
    <TapeType>TS_JC</TapeType>
  </TapeDensityDirective>
  <TapeDensityDirective>
    <Density>TS1140</Density>
    <Id>ee94c349-d421-4a27-a21a-17d1a7c1bb6c</Id>
    <PartitionId>
      b11f1a5f-30a2-41c0-8962-288d9a6f84c8
    </PartitionId>
    <TapeType>TS_JC</TapeType>
  </TapeDensityDirective>
</Data>
```

GET TAPE DRIVE

Description

Get information about the specified tape drive.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_drive/{tape_drive_id}/
```

To determine the UUID for a tape drive, see [Get Tape Drives](#) on page 746.

Responses

Response Elements

```

<Data>
  <CleaningRequired>TRUE | FALSE</CleaningRequired>
  <ErrorMessage>{string}</ErrorMessage>
  <ForceTapeRemoval>TRUE | FALSE</ForceTapeRemoval>
  <Id>{string}</Id>
  <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
  <MaxFailedTapes>{32-bit integer}</MaxFailedTapes>
  <MfgSerialNumber>{string}</MfgSerialNumber>
  <MinimumTaskPriority>
    ANY | LOW | NORMAL | HIGH | URGENT
  </MinimumTaskPriority>
  <PartitionId>{string}</PartitionId>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedTaskType>ANY | READ | WRITE | MAINTENANCE</ReservedTaskType>
  <SerialNumber>{string}</SerialNumber>
  <State>
    ERROR | NORMAL |
    NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES | OFFLINE
  </State>
  <TapeId>{string}</TapeId>
  <Type>
    LTO5 | LTO6 | LTO7 | LTO8 | LTO8M | LTO9 | TS1140 | TS1150 | TS1155 | TS1160 | UNKNOWN
  </Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE , FALSE
ErrorMessage	A description of any current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE , FALSE

Parameter	Description
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTask Priority	The minimum priority task for which the drive is reserved. Values: ANY, LOW, NORMAL, HIGH, URGENT
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY, READ, WRITE, MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Values: ERROR, NORMAL, NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES, OFFLINE
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN

Example

Sample Request

This request retrieves information about the tape drive with the UUID `e2b1c2f8-85be-4350-8882-2a2e1cd8ca0e`.

```
GET http://blackpearl-hostname/_rest_/tape_drive/e2b1c2f8-85be-4350-8882-2a2e1cd8ca0e/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <CleaningRequired>FALSE</CleaningRequired>
  <ErrorMessage/>
  <ForceTapeRemoval>FALSE</ForceTapeRemoval>
  <Id>e2b1c2f8-85be-4350-8882-2a2e1cd8ca0e</Id>
  <LastCleaned/>
  <MaxFailedTapes>3</MaxFailedTapes>
  <MfgSerialNumber>90WT008323</MfgSerialNumber>
  <MinimumTaskPriority>ANY</MinimumTaskPriority>
  <PartitionId>720270ee-9d79-46d2-833b-6150724593a3</PartitionId>
  <Quiesced>NO</Quiesced>
  <ReservedTaskType>ANY</ReservedTaskType>
  <SerialNumber>68001883</SerialNumber>
  <State>NORMAL</State>
  <TapeId>bbaf65f9-69fe-4212-97fe-47466fe39f61</TapeId>
  <Type>LTO5</Type>
</Data>
```

GET TAPE DRIVES

Description

Get information about all tape drives. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_drive/[?last_page][minimum_task_
priority=ANY|LOW|NORMAL|HIGH|URGENT][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&partition_id={string}][&reserved_
task_type=ANY|READ|WRITE][&serial_number={string}][&state=ERROR|NORMAL|NOT_
COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES|OFFLINE]
[&type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|TS1140|TS1150|TS1155|TS1160|UNKNOWN]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
minimum_task_priority	The minimum priority task for which the drive is reserved. Values: ANY, LOW, NORMAL, HIGH, URGENT	no
page_length	The maximum number of tape drives to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first tape drive to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
partition_id	The UUID for the partition.	no
reserved_task_type	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY, READ, WRITE	no
serial_number 1	The manufacturer-assigned serial number for the drive.	no
state	The status of the tape drive. Values: ERROR, NORMAL, NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES, OFFLINE	no
type	The tape format and generation of the tape drive. Values: LTO5, LTO6, LTO7, LTO8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <TapeDrive>
    <CleaningRequired>TRUE|FALSE</CleaningRequired>
    <ErrorMessage>{string}</ErrorMessage>
    <ForceTapeRemoval>TRUE|FALSE</ForceTapeRemoval>
    <Id>{string}</Id>
    <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
    <MaxFailedTapes>{32-bit integer}</MaxFailedTapes>
    <MfgSerialNumber>{string}</MfgSerialNumber>
    <MinimumTaskPriority>
      ANY|LOW|NORMAL|HIGH|URGENT
    </MinimumTaskPriority>
    <PartitionId>{string}</PartitionId>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <ReservedTaskType>ANY|READ|WRITE|MAINTENANCE</ReservedTaskType>
    <SerialNumber>{string}</SerialNumber>
    <State>
      ERROR|NORMAL|
      NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES|
      OFFLINE
    </State>
    <TapeId>{string}</TapeId>
    <Type>
      LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|TS1140|TS1150|TS1155|TS1160
      |UNKNOWN
    </Type>
  </TapeDrive>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
TapeDrive	A container for information about a single tape drive.

Parameter	Description
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE , FALSE
ErrorMessage	A description of the current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE , FALSE
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTaskPriority	The minimum priority task for which the drive is reserved. Values: ANY , LOW , NORMAL , HIGH , URGENT
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY , READ , WRITE , MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Values: ERROR , NORMAL , NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES , OFFLINE
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , TS1140 , TS1150 , TS1155 , TS1160 , UNKNOWN

Example

Sample Request

This request retrieves information about all tape drives connected to the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/tape_drive/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <TapeDrive>
    <CleaningRequired>FALSE</CleaningRequired>
    <ErrorMessage/>
    <ForceTapeRemoval>FALSE</ForceTapeRemoval>
    <Id>63d3dbd4-baa8-4e8f-a40d-42a6c3e3bf95</Id>
    <LastCleaned/>
    <MaxFailedTapes>3</MaxFailedTapes>
    <MfgSerialNumber>90WT008323</MfgSerialNumber>
    <MinimumTaskPriority>ANY</MinimumTaskPriority>
    <PartitionId>
      4e848fa9-6cf5-45c4-ade2-16d96377401f
    </PartitionId>
    <Quiesced>NO</Quiesced>
    <ReservedTaskType>ANY</ReservedTaskType>
    <SerialNumber>68001883</SerialNumber>
    <State>NORMAL</State>
    <TapeId>2d4a2794-8617-4cdc-9e8f-0530fa1abbbf2</TapeId>
    <Type>LTO5</Type>
  </TapeDrive>
  ...
</Data>
```

GET TAPE FAILURES

Description

Get a list of all tape failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_failure/[?error_message={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&tape_drive_id={string}][&tape_id={string}][&type=BAR_CODE_CHANGED|BAR_CODE_DUPLICATE|BLOB_READ_FAILED|CLEANING_TAPE_EXPIRED|DATA_CHECKPOINT_FAILURE|DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|DATA_CHECKPOINT_MISSING|DELAYED_OWNERSHIP_FAILURE|DRIVE_CLEAN_FAILED|DRIVE_CLEANED|DRIVE_TEST_FAILED|DRIVE_TEST_FAILED_ALL_WRITES_TOO_SLOW|DRIVE_TEST_FAILED_FORWARD_WRITES_TOO_SLOW|DRIVE_TEST_FAILED_REVERSE_WRITES_TOO_SLOW|DRIVE_TEST_SUCCEEDED|FORMAT_FAILED|GET_TAPE_INFORMATION_FAILED|HARDWARE_ERROR|IMPORT_FAILED|IMPORT_INCOMPLETE|IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE|IMPORT_FAILED_DUE_TO_DATA_INTEGRITY|INCOMPATIBLE|INSPECT_FAILED|QUIESCING_DRIVE|READ_FAILED|REIMPORT_REQUIRED|SERIAL_NUMBER_MISMATCH|VERIFY_FAILED|WRITE_FAILED]
```

Request Parameters

Parameter	Description	Required
error_message 1	The description of an error.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of failures to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first failure to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
tape_drive_id	The UUID or other unique attribute for the tape drive.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
tape_id	The UUID, barcode, or other unique attribute for the tape.	no
type	The type of tape error message. Values: BAR_CODE_CHANGED, BAR_CODE_DUPLICATE, BLOB_READ_FAILED, CLEANING_TAPE_EXPIRED, DATA_CHECKPOINT_FAILURE, DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY, DATA_CHECKPOINT_MISSING, DELAYED_OWNERSHIP_FAILURE, DRIVE_CLEAN_FAILED, DRIVE_CLEANED DRIVE_TEST_FAILED, DRIVE_TEST_FAILED_ALL_WRITES_TOO_SLOW, DRIVE_TEST_FAILED_FORWARD_WRITES_TOO_SLOW, DRIVE_TEST_FAILED_REVERSE_WRITES_TOO_SLOW, DRIVE_TEST_SUCCEEDED, FORMAT_FAILED, GET_TAPE_INFORMATION_FAILED, HARDWARE_ERROR, IMPORT_FAILED, IMPORT_INCOMPLETE, IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE, IMPORT_FAILED_DUE_TO_DATA_INTEGRITY, INCOMPATIBLE, INSPECT_FAILED, QUIESCING_DRIVE, READ_FAILED, REIMPORT_REQUIRED, SERIAL_NUMBER_MISMATCH, VERIFY_FAILED, WRITE_FAILED	no

Responses

Response Elements

```

<Data>
  <TapeFailure>
    <Date>{ YYYY-MM-DDThh:mm:ss.xxxZ }</Date>
    <ErrorMessage>{ string }</ErrorMessage>
    <Id>{ string }</Id>
    <TapeDriveId>{ string }</TapeDriveId>
    <TapeId>{ string }</TapeId>

```

```

    <Type>
      BAR_CODE_CHANGED|BAR_CODE_DUPLICATE|BLOB_READ_FAILED|CLEANING_TAPE_
      EXPIRED|DATA_CHECKPOINT_FAILURE|DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|DATA_
      CHECKPOINT_MISSING|DELAYED_OWNERSHIP_FAILURE|DRIVE_CLEAN_FAILED|DRIVE_CLEANED|DRIVE_
      TEST_FAILED|DRIVE_TEST_FAILED_ALL_WRITES_TOO_SLOW|DRIVE_TEST_FAILED_FORWARD_WRITES_
      TOO_SLOW|DRIVE_TEST_FAILED_REVERSE_WRITES_TOO_SLOW|DRIVE_TEST_SUCCEEDED|FORMAT_
      FAILED|GET_TAPE_INFORMATION_FAILED|HARDWARE_ERROR|IMPORT_FAILED|IMPORT_
      INCOMPLETE|IMPORT_FAILED_DUE_TO_TAKE_OWNERSHIP_FAILURE|IMPORT_FAILED_DUE_TO_DATA_
      INTEGRITY|INCOMPATIBLE|INSPECT_FAILED|QUIESCING_DRIVE|READ_FAILED|REIMPORT_
      REQUIRED|SERIAL_NUMBER_MISMATCH|VERIFY_FAILED|WRITE_FAILED
    </Type>
  </TapeFailure>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
TapeFailure	A container for information about a single tape failure.
Date	The date and time the error occurred in the format YYYY-MM-DDThh:mm:ss.xxxZ.
ErrorMessage	A description of the error.
Id	The UUID for the error message.
TapeDriveId	The UUID for the tape drive.
TapeId	The UUID for the tape.
Type	The type of tape error message.

Example

Sample Request

This request retrieves a list of all tape failures.

```
GET http://blackpearl-hostname/_rest_/tape_failure/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <TapeFailure>
    <Date>2014-10-02 11:40:23.851</Date>
    <ErrorMessage>{Full Exception Output}</ErrorMessage>
    <Id>1e41b332-5db8-4080-87c1-d7e00b170a18</Id>
    <TapeDriveId>
      eea2ee27-05ef-4b15-b8f8-c2f897c892e6
    </TapeDriveId>
    <TapeId>1793a19b-a701-4709-98b1-3bd3f75c739b</TapeId>
    <Type>FORMAT_FAILED</Type>
  </TapeFailure>
</Data>
```

GET TAPE LIBRARIES

Description

Get a list of all tape libraries available to the Spectra BlackPearl Nearline Gateway. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_library/[?last_page][&management_url=
{string}][&name={string}][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&serial_number={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
management_url	The IP address to access the library's BlueScale web server.	no

Parameter	Description	Required
name 1	The name of the library.	no
page_length	The maximum number of libraries to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first library to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
serial_number 1	The serial number of the library.	no

Responses

Response Elements

```

<Data>
  <TapeLibrary>
    <Id>{string}</Id>
    <ManagementUrl>{string}</ManagementUrl>
    <Name>{string}</Name>
    <SerialNumber>{string}</SerialNumber>
  </TapeLibrary>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
TapeLibrary	The container for information about a single library
Id	The UUID for the library.

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description
ManagementUrl	The IP address to access the library's BlueScale web server.
Name	The name for the library.
SerialNumber	The serial number for the library.

Example

Sample Request

This request retrieves a list of all tape libraries available to the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/tape_library/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <TapeLibrary>
```

```
    <Id>836e1079-c726-4eae-ae4-0472d75bbae4</Id>
```

```
    <ManagementUrl>10.10.11.10</ManagementUrl>
```

```
    <Name>T950Library</Name>
```

```
    <SerialNumber>0918401</SerialNumber>
```

```
  </TapeLibrary>
```

```
  ...
```

```
</Data>
```

GET TAPE LIBRARY

Description

Get information about the specified tape library.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_library/{tape library UUID, name, or other unique attribute}/
```

To determine the UUID for a tape library, see [Get Tape Libraries on page 754](#).

Responses

Response Elements

```
<Data>
  <Id>{string}</Id>
  <ManagementUrl>{string}</ManagementUrl>
  <Name>{string}</Name>
  <SerialNumber>{string}</SerialNumber>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Id	The UUID for the library.
ManagementUrl	The IP address to access the library's BlueScale web server.
Name	The name for the library.
SerialNumber	The serial number for the library.

Example

Sample Request

This request retrieves information about the tape library with the UUID 3ca7f00b-b148-4f56-9964-9aeefb88e879.

```
GET http://blackpearl-hostname/_rest_/tape_library/3ca7f00b-b148-4f56-9964-9aeefb88e879/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Id>3ca7f00b-b148-4f56-9964-9aeefb88e879</Id>
  <ManagementUrl>10.10.11.10</ManagementUrl>
  <Name>T950Library</Name>
  <SerialNumber>0918401</SerialNumber>
</Data>
```

GET TAPE PARTITION

Description

Get information about the specified tape partition.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_partition/{tape_partition_id}/[?full_
details]
```

To determine the UUID for a tape partition, see [Get Tape Partitions on page 765](#).

Request Parameters

Parameter	Description	Required
full_details	If included, then additional information about the tape partition is included in the response.	no

Responses

Response Elements

```
<Data>
  <AutoCompactionEnabled>TRUE | FALSE</AutoCompactionEnabled>
  <AutoQuiesceEnabled>TRUE | FALSE</AutoQuiesceEnabled>
  <DriveIdleTimeoutInMinutes>
    {32-bit integer}
  </DriveIdleTimeoutInMinutes>
  <DriveType>
    LTO5 | LTO6 | LTO7 | LTO8 | LTOM8 | LTO9 | TS1140 | TS1150 | TS1155 | TS1160 | UNKNOWN
  </DriveType>
```

```

<DriveTypes> (only if full_details is included)
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|TS1140|TS1150|TS1155|TS1160|UNKNOWN
</DriveTypes>
...
<ErrorMessage>{string}</ErrorMessage>
<Id>{string}</Id>
<ImportExportConfiguration>
    SUPPORTED|NOT_SUPPORTED
</ImportExportConfiguration>
<LibraryId>{string}</LibraryId>
<MinimumReadReservedDrives>
    {32-bit integer}
</MinimumReadReservedDrives>
<MinimumWriteReservedDrives>
    {32-bit integer}
</MinimumWriteReservedDrives>
<Name>{string}</Name>
<Quiesced>NO|PENDING|YES</Quiesced>
<SerialId>{string}</SerialId>
<SerialNumber>{string}</SerialNumber>
<State>ONLINE|OFFLINE</State>
<TapeTypes> (only if full_details is included)
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
</TapeTypes>
</Data>

```

where the response elements are defined as follows:

Parameter	Description	Only with full-details
Data	The container for the response.	
AutoCompaction Enabled	Whether auto compaction of tapes is enabled.	
AutoQuiesceEnabled	Whether to quiesce a tape drive after reaching the max_failed_tapes limit (see max_failed_tapes on page 813).	
DriveIdleTimeoutIn Minutes	The number of minutes to wait while a drive is idle before ejecting the tape and moving it back to a storage slot.	

Parameter	Description	Only with full-details
DriveType	The drive type in the partition used by the BlackPearl gateway. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN	
DriveTypes	All drive types assigned to the partition. Only one drive type should be assigned to a partition. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN	yes
ErrorMessage	The description of any current error.	
Id	The UUID for the partition.	
ImportExport Configuration	Whether the import and export configuration of the tape library is supported by the BlackPearl gateway. If a T50e or T120 library with multiple partitions is associated with a BlackPearl gateway, you cannot use the BlackPearl gateway to eject the tapes because of the library's shared eject port. In this situation, see <i>Spectra BlackPearl gateway User Guide</i> for instructions for manually ejecting tapes from the BlackPearl gateway. Values: SUPPORTED, NOT_SUPPORTED	
LibraryId	The UUID for the library.	
MinimumRead ReservedDrives	The minimum number of drives in the partition reserved for reads.	
MinimumWrite ReservedDrives	The minimum number of drives in the partition reserved for writes.	
Name	The name of the partition.	
Quiesced	Whether the partition is in a temporarily inactive state. Values: NO, PENDING, YES	
SerialId	A unique representation of the library partition serial number that remains the same even if the partition exporter is replaced.	
SerialNumber	The serial number of the library partition.	
State	The status of the tape partition. Values: ONLINE, OFFLINE	

Parameter	Description	Only with full-details
TapeTypes	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	yes

Example

Sample Request

This request retrieves information about the tape partition with the UUID 9434bc89-67a5-41c2-a161-098972f1dd67 using full_details.

```
GET http://blackpearl-hostname/_rest_/tape_partition/9434bc89-67a5-41c2-a161-098972f1dd67/?full_details HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AutoCompactionEnabled>FALSE</AutoCompactionEnabled>
  <AutoQuiesceEnabled>>false</AutoQuiesceEnabled>
  <DriveIdleTimeoutInMinutes>7</DriveIdleTimeoutInMinutes>
  <DriveType>TS1140</DriveTypes>
  <DriveTypes>TS1140</DriveTypes>
  <ErrorMessage/>
  <Id>9434bc89-67a5-41c2-a161-098972f1dd67</Id>
  <ImportExportConfiguration>
    SUPPORTED
  </ImportExportConfiguration>
  <LibraryId>1b71aadb-4ffc-4649-9f41-3f0cc5d01782</LibraryId>
  <MinimumReadReservedDrives>0</MinimumReadReservedDrives>
  <MinimumWriteReservedDrives>0</MinimumWriteReservedDrives>
  <Name>name-tape partition</Name>
  <Quiesced>NO</Quiesced>
  <SerialId>01000090A5000950</SerialId>
  <SerialNumber>21130090A5000950</SerialNumber>
  <State>ONLINE</State>
  <TapeTypes>LTO6</TapeTypes>
</Data>
```

GET TAPE PARTITION FAILURES

Description

Get a list of all tape partition failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_partition_failure/[?error_message=
{string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}]
[&page_start_marker={string}][&partition_id={string}][&type=AUTO_QUIESCED|CLEANING_
TAPE_REQUIRED|DUPLICATE_TAPE_BAR_CODES_DETECTED|EJECT_STALLED_DUE_TO_OFFLINE_
TAPES|MINIMUM_DRIVE_COUNT_NOT_MET|MOVE_FAILED|MOVE_FAILED_DUE_TO_PREPARE_TAPE_FOR_
REMOVAL_FAILURE|NO_USABLE_DRIVES|ONLINE_STALLED_DUE_TO_NO_STORAGE_SLOTS|TAPE_DRIVE_
IN_ERROR|TAPE_DRIVE_MISSING|TAPE_DRIVE_NOT_CLEANED|TAPE_DRIVE_QUIESCED|TAPE_DRIVE_
TYPE_MISMATCH|TAPE_EJECTION_BY_OPERATOR_REQUIRED|TAPE_MEDIA_TYPE_INCOMPATIBLE|TAPE_
REMOVAL_UNEXPECTED|TAPE_IN_INVALID_PARTITION]
```

Request Parameters

Parameter	Description	Required
error_message 1	A description of an error.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of failures to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first failure to list. The default is 0.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
page_start_marker	<p>The UUID or other unique attribute for the item just before the first item to list.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
partition_id	The UUID for the partition.	no
type	<p>The type of tape partition error message.</p> <p>Values: AUTO_QUIESCED, CLEANING_TAPE_REQUIRED, DUPLICATE_TAPE_BAR_CODES_DETECTED, EJECT_STALLED_DUE_TO_OFFLINE_TAPES, MINIMUM_DRIVE_COUNT_NOT_MET, MOVE_FAILED, MOVE_FAILED_DUE_TO_PREPARE_TAPE_FOR_REMOVAL_FAILURE, NO_USABLE_DRIVES, ONLINE_STALLED_DUE_TO_NO_STORAGE_SLOTS, TAPE_DRIVE_IN_ERROR, TAPE_DRIVE_MISSING, TAPE_DRIVE_NOT_CLEANED, TAPE_DRIVE_QUIESCED, TAPE_DRIVE_TYPE_MISMATCH, TAPE_EJECTION_BY_OPERATOR_REQUIRED, TAPE_MEDIA_TYPE_INCOMPATIBLE, TAPE_REMOVAL_UNEXPECTED, TAPE_IN_INVALID_PARTITION</p>	no

Responses

Response Elements

```

<Data>
  <TapePartitionFailure>
    <Date>{YYYY-MM-DDThh:mm:ss.xxxZ}</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <PartitionId>{string}</PartitionId>
    <Type>
      AUTO_QUIESCED|CLEANING_TAPE_REQUIRED|DUPLICATE_TAPE_BAR_CODES_
DETECTED|EJECT_STALLED_DUE_TO_OFFLINE_TAPES|MINIMUM_DRIVE_COUNT_NOT_MET|MOVE_
FAILED|MOVE_FAILED_DUE_TO_PREPARE_TAPE_FOR_REMOVAL_FAILURE|NO_USABLE_DRIVES|ONLINE_
STALLED_DUE_TO_NO_STORAGE_SLOTS|TAPE_DRIVE_IN_ERROR|TAPE_DRIVE_MISSING|TAPE_DRIVE_
NOT_CLEANED|TAPE_DRIVE_QUIESCED|TAPE_DRIVE_TYPE_MISMATCH|TAPE_EJECTION_BY_OPERATOR_
REQUIRED|TAPE_MEDIA_TYPE_INCOMPATIBLE|TAPE_REMOVAL_UNEXPECTED|TAPE_IN_INVALID_
PARTITION
    </Type>
  </TapePartitionFailure>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
TapePartitionFailure	The container for information for each failure.
Date	The date and time the failure occurred in the format YYYY-MM-DDThh:mm:ss.xxxZ.
ErrorMessage	The full exception output for the error.
Id	The UUID for the error message.
PartitionId	The UUID for the partition.

Parameter	Description
Type	The type of tape partition failure message. Values: CLEANING_TAPE_REQUIRED , DUPLICATE_TAPE_BAR_CODES_DETECTED , EJECT_STALLED_DUE_TO_OFFLINE_TAPES , MINIMUM_DRIVE_COUNT_NOT_MET , MOVE_FAILED , MOVE_FAILED_DUE_TO_PREPARE_TAPE_FOR_REMOVAL_FAILURE , NO_USABLE_DRIVES , ONLINE_STALLED_DUE_TO_NO_STORAGE_SLOTS , TAPE_DRIVE_IN_ERROR , TAPE_DRIVE_MISSING , TAPE_DRIVE_QUIESCED , TAPE_DRIVE_TYPE_MISMATCH , TAPE_EJECTION_BY_OPERATOR_REQUIRED , TAPE_MEDIA_TYPE_INCOMPATIBLE , TAPE_REMOVAL_UNEXPECTED , TAPE_IN_INVALID_PARTITION

Example

Sample Request

This request retrieves a list of tape partition failures.

```
GET http://blackpearl-hostname/_rest_/tape_partition_failure/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <TapePartitionFailure>
```

```
    <Date>2014-10-02 11:40:10.621</Date>
```

```
    <ErrorMessage>{Full Exception Output}</ErrorMessage>
```

```
    <Id>a92bd5a6-eb56-44c8-9a08-1f896c3eab0e</Id>
```

```
    <PartitionId>
```

```
      c95f253e-d56c-4ce5-a882-46f213ac9e34
```

```
    </PartitionId>
```

```
    <Type>MOVE_FAILED</Type>
```

```
  </TapePartitionFailure>
```

```
  ...
```

```
</Data>
```

GET TAPE PARTITIONS

Description

Get information about all tape partitions. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_partition/[?full_details][&import_
export_configuration=NOT_SUPPORTED|SUPPORTED][&last_page][&library_id={string}]
[?minimum_read_reserved_drives={32-bit integer}][&minimum_write_reserved_drives=
{32-bit integer}][&name={string}][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&quiesced=NO|PENDING|YES][&serial_
number={string}][&state=ONLINE|OFFLINE]
```

Request Parameters

Parameter	Description	Required
full_details	If included, then additional information about the tape partition is included in the response.	no
import_export_configuration	Whether the import and export configuration of the tape library is supported by the BlackPearl gateway. If a T50e or T120 library with multiple partitions is associated with a BlackPearl gateway, you cannot use the BlackPearl gateway to eject the tapes because of the library's shared eject port. In this situation, see <i>Spectra BlackPearl gateway User Guide</i> for instructions for manually ejecting tapes from the BlackPearl gateway. Values: SUPPORTED, NOT_SUPPORTED	no
last_page	If included, only the last page of results is returned.	no
minimum_read_reserved_drives	The minimum number of drives in the partition reserved for reads.	no
minimum_write_reserved_drives	The minimum number of drives in the partition reserved for writes.	no
name 1	The name of the partition.	no
page_length	The maximum number of tape partitions to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first tape partition to list. The default is 0.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
quiesced	Whether the partition is in a temporarily inactive state. Values: NO, PENDING, YES	no
serial_number 1	The serial number of the library partition.	no
state	The status of the tape partition. Values: ONLINE, OFFLINE	no

Responses

Response Elements

```

<Data>
  <TapePartition>
    <AutoCompactionEnabled>TRUE|FALSE</AutoCompactionEnabled>
    <AutoQuiesceEnabled>TRUE|FALSE</AutoQuiesceEnabled>
    <DriveIdleTimeoutInMinutes>
      {32-bit integer}
    </DriveIdleTimeoutInMinutes>
    <DriveType>
      LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|TS1140|TS1150|TS1155|TS1160|UNKNOWN
    </DriveType>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <ImportExportConfiguration>
      SUPPORTED|NOT_SUPPORTED
    </ImportExportConfiguration>
    <LibraryId>{string}</LibraryId>
    <MinimumReadReservedDrives>
      {32-bit integer}
    </MinimumReadReservedDrives>

```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <MinimumWriteReservedDrives>
      {32-bit integer}
    </MinimumWriteReservedDrives>
    <Name>{string}</Name>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <SerialId>{string}</SerialId>
    <SerialNumber>{string}</SerialNumber>
    <State>ONLINE|OFFLINE</State>
    <TapeTypes> (only if full_details is included)
      LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|
      TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|
      TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN
    </TapeTypes>
  </TapePartition>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
TapePartition	The container for information about one tape partition.
AutoCompaction Enabled	Whether auto compaction of tapes is enabled.
AutoQuiesceEnabled	Whether to quiesce a tape drive after reaching the <code>max_failed_tapes</code> limit (see <code>max_failed_tapes</code> on page 813).
DriveIdleTimeoutIn Minutes	The number of minutes to wait while a drive is idle before ejecting the tape and moving it back to a storage slot.
DriveType	The drive type used by the BlackPearl gateway. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN
ErrorMessage	The description of any current error.
Id	The UUID for the partition.

Parameter	Description
ImportExport Configuration	Whether the import and export configuration of the tape library is supported by the BlackPearl gateway. If a T50e or T120 library with multiple partitions is associated with a BlackPearl gateway, you cannot use the BlackPearl gateway to eject the tapes because of the library's shared eject port. In this situation, see <i>Spectra BlackPearl gateway User Guide</i> for instructions for manually ejecting tapes from the BlackPearl gateway. Values: SUPPORTED, NOT_SUPPORTED
LibraryId	The UUID for the library.
MinimumRead ReservedDrives	The minimum number of drives in the partition reserved for reads.
MinimumWrite ReservedDrives	The minimum number of drives in the partition reserved for writes.
Name	The name of the partition.
Quiesced	Whether the partition is in a temporarily inactive state. Values: NO, PENDING, YES
SerialID	A unique representation of the library partition serial number that remains the same even if the partition exporter is replaced.
SerialNumber	The serial number of the library partition.
State	The status of the tape partition. Values: ONLINE, OFFLINE
TapeTypes ¹	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN

Example

Sample Request

This request retrieves a list of tape partitions.

```
GET http://blackpearl-hostname/_rest_/tape_partition/ HTTP/1.1
```

1) Only returned if **full_details** is included.

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <TapePartition>
```

```
    <AutoCompactionEnabled>>false</AutoCompactionEnabled>
```

```
    <AutoQuiesceEnabled>>false</AutoQuiesceEnabled>
```

```
    <DriveIdleTimeoutInMinutes>15</DriveIdleTimeoutInMinutes>
```

```
    <DriveType>LT06</DriveType>
```

```
    <ErrorMessage/>
```

```
    <Id>dce42f32-2c1b-4072-8621-c2947beaadde</Id>
```

```
    <ImportExportConfiguration>SUPPORTED</ImportExportConfiguration>
```

```
    <LibraryId>3a499d21-96f1-42b5-b3d1-fa25a1ed9bdc</LibraryId>
```

```
    <MinimumReadReservedDrives>0</MinimumReadReservedDrives>
```

```
    <MinimumWriteReservedDrives>0</MinimumWriteReservedDrives>
```

```
    <Name>name-tape partition 1</Name>
```

```
    <Quiesced>NO</Quiesced>
```

```
    <SerialNumber>tape partition 1</SerialNumber>
```

```
    <State>ONLINE</State>
```

```
  </TapePartition>
```

```
  ...
```

```
</Data>
```

GET TAPES

Description

Get a list of all tapes. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape/[?assigned_to_storage=TRUE|FALSE][&bar_
code={string}][&bucket_id={string}][&eject_label={string}][&eject_location={string}]
[&full_of_data=TRUE|FALSE][&last_page][&last_verified={date}][&page_length=
{32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
[&partially_verified_end_of_tape={date}][&partition_id={string}][&previous_
state=NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_
WRITE_PROTECTION|DATA_CHECKPOINT_FAILURE|DATA_CHECKPOINT_FAILURE_DUE_TO_READ_
ONLY|DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|EJECT_TO_EE_IN_
PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
PROGRESS|IMPORT_PENDING|INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|ONLINE_IN_
PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN][&role=NORMAL|TEST][&serial_number={string}]
[&sort_by=ASSIGNED_TO_STORAGE_DOMAIN|AVAILABLE_RAW_CAPACITY|BAR_CODE|BUCKET_
ID|DESCRIPTION_FOR_IDENTIFICATION|EJECT_DATE|EJECT_LABEL|EJECT_LOCATION|EJECT_
PENDING|FULL_OF_DATA|ID|LAST_ACCESSED|LAST_CHECKPOINT|LAST_MODIFIED|LAST_
VERIFIED|PARTIALLY_VERIFIED_END_OF_TAPE|PARTITION_ID|PREVIOUS_STATE|SERIAL_
NUMBER|STATE|STORAGE_DOMAIN_ID|TAKE_OWNERSHIP_PENDING|TOTAL_RAW_
CAPACITY|TYPE|VERIFY_PENDING|WRITE_PROTECTED][&state=NORMAL|AUTO_COMPACTON_IN_
PROGRESS|BAD|BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|DATA_CHECKPOINT_
FAILURE|DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|DATA_CHECKPOINT_MISSING|EJECT_FROM_
EE_PENDING|EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|FORMAT_
PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_
DATA|OFFLINE|ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|RAW_IMPORT_IN_
PROGRESS|RAW_IMPORT_PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN][&storage_domain_id=
{string}][&type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|TS_
JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN][&write_
protected=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
assigned_to_storage_domain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE	no
available_raw_capacity	The amount of unused raw capacity on the tape in bytes.	no

Parameter	Description	Required
bar_code ¹	The barcode on the label of the tape cartridge.	no
bucket_id	The UUID for the bucket to which the tape is assigned.	no
eject_label	Enter information to assist in the handling of the tape.	no
eject_location	Enter information to describe where the ejected tape can be located.	no
full_of_data	Whether the tape is full of data. Values: TRUE, FALSE	no
last_page	If included, only the last page of results is returned.	no
last_verified	The date and time that the BlackPearl gateway last verified the data on a tape cartridge in the format YYYY-MM-DDThh:mm:ss.xxxZ.	no
page_length	The maximum number of tapes to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first tapes to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
partially_verified_end_of_tape ¹	The date and time that the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.	no
partition_id	The UUID for the partition.	no
previous_state	The previous status of the tape. See State on page 664 .	no
Role	The role assigned to the tape. Values: Normal, Test	no
serial_number ¹	The manufacturer-assigned serial number for the tape cartridge.	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
sort_by	The response element to use for sorting the list of tapes returned. Values: ASSIGNED_TO_STORAGE_DOMAIN, AVAILABLE_RAW_CAPACITY, BAR_CODE, BUCKET_ID, DESCRIPTION_FOR_IDENTIFICATION, EJECT_DATE, EJECT_LABEL, EJECT_LOCATION, EJECT_PENDING, FULL_OF_DATA, ID, LAST_ACCESSED, LAST_CHECKPOINT, LAST_MODIFIED, LAST_VERIFIED, PARTIALLY_VERIFIED_END_OF_TAPE, PARTITION_ID, PREVIOUS_STATE, SERIAL_NUMBER, STATE, STORAGE_DOMAIN_ID, TAKE_OWNERSHIP_PENDING, TOTAL_RAW_CAPACITY, TYPE, VERIFY_PENDING, WRITE_PROTECTED	no
state	The status of the tape. See State on page 664 .	no
storage_domain_member_id	The UUID for the storage domain member. See Get Storage Domain Members on page 569 .	no
type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN	no
verify_pending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND	no
write_protected	Whether the tape is write protected. Values: TRUE, FALSE	no

Responses

Response Elements

```

<Data>
  <Tape>
    <AssignedToStorageDomain>
      TRUE | FALSE
    </AssignedToStorageDomain>
    <AvailableRawCapacity>
      {64-bit integer}
    </AvailableRawCapacity>
    <BarCode>{string}</BarCode>
    <BucketId>{string}</BucketId>

```

```

<DescriptionForIdentification>
  {string}
</DescriptionForIdentification>
<EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
<EjectLabel>{string}</EjectLabel>
<EjectLocation>{string}</EjectLocation>
<EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
<FullOfData>TRUE|FALSE</FullOfData>
<Id>{string}</Id>
<LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
  FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_PROGRESS|
  IMPORT_PENDING|INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|
  OFFLINE|ONLINE_IN_PROGRESS|ONLINE_PENDING|
  PENDING_INSPECTION|RAW_IMPORT_IN_PROGRESS|
  RAW_IMPORT_PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>

```

```

<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
  FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_PROGRESS|
  IMPORT_PENDING|INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|
  OFFLINE|ONLINE_IN_PROGRESS|ONLINE_PENDING|
  PENDING_INSPECTION|RAW_IMPORT_IN_PROGRESS|
  RAW_IMPORT_PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD
  |TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|
  TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Tape>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Tape	The container for information about a single tape.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.

Parameter	Description
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test

Parameter	Description
SerialNumber	The manufacturer-assigned serial number for the tape cartridge.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request retrieves information about all tapes associated with the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/tape/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

<Data>

<Tape>

```
<AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
<AvailableRawCapacity>12385779712</AvailableRawCapacity>
<BarCode>018675L6</BarCode>
<BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
<DescriptionForIdentification/>
<EjectDate/>
<EjectLabel/>
<EjectLocation/>
<EjectPending/>
<FullOfData>FALSE</FullOfData>
<Id>d441e3f3-35d1-4081-aa91-c618b2ed7fc9</Id>
<LastAccessed>2014-12-16 15:56:36.803</LastAccessed>
<LastCheckpoint>
  1da169f7-b608-4e6e-93d7-6c0710842da8:25
</LastCheckpoint>
<LastModified>2014-12-16 15:56:36.803</LastModified>
<LastVerified/>
<PartiallyVerifiedEndOfTape>
  2016-12-08 17:50:22.311
</PartiallyVerifiedEndOfTape>
<PartitionId>
  bd91171d-7738-4aea-b319-7abce892a7b1
</PartitionId>
<SerialNumber>HP-AE1WRUY90E</SerialNumber>
<State>NORMAL</State>
<StorageDomainMemberId/>
<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>2408088338432</TotalRawCapacity>
<Type>LTO6</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
```

</Tape>

...

</Data>

IMPORT ALL BLACKPEARL FOREIGN TAPES

Description

Imports all tapes in the library associated with a different BlackPearl gateway. If one or more buckets being imported does not already exist, the user ID and data policy to use for any new buckets must be specified. The storage domain to use may optionally be specified. If not specified, the BlackPearl gateway attempts to automatically determine the most logical storage domain in which to add the tape.

Notes:

- When importing tapes, it is possible that buckets and objects with the same name may already exist on the current BlackPearl gateway. If so, the versioning configured for the data policy is used. See [versioning on page 330](#).
- To import all non-BlackPearl foreign tapes, see [Import All LTFS Foreign Tapes on page 781](#).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=IMPORT[&data_policy_id={string}][&priority=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&storage_domain_id={string}][&user_id={string}][&verify_data_after_import=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&verify_data_prior_to_import=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
data_policy_id	The UUID, name, or other unique attribute for the data policy to associate with any buckets on the tape that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the tape, the <code>data_policy_id</code> is required.	no

Parameter	Description	Required
priority	The priority for processing the import. The <code>priority</code> determines the resources assigned and the processing order. Imports can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
storage_domain_id	The UUID, name, or other unique attribute for the storage domain to associate with the data on the tape. Note: If this parameter is not specified, the BlackPearl gateway attempts to determine the most logical storage domain in which to add the tape. If the tape could be imported into multiple storage domains, the import fails, unless the <code>storage_domain_id</code> is provided.	no
user_id	The UUID, name, or other unique attribute for the user to associate with any buckets on the tape that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the tape, the <code>user_id</code> is required.	no
verify_data_after_import	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	no
verify_data_before_import	Whether the data must be verified before the tape is imported. Values: TRUE, FALSE Note: It is recommended to verify data prior to import whenever it is possible that the tapes being imported contain objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request imports all tapes in the library associated with a different BlackPearl gateway.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=IMPORT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

IMPORT ALL LTFs FOREIGN TAPES

Description

Imports all non-BlackPearl LTFs foreign tapes. See [Import All BlackPearl Foreign Tapes on page 779](#) to import BlackPearl foreign tapes.

Notes:

- No matter the specifics of the data policy associated with the bucket to which the tape is imported, the BlackPearl gateway does not make additional copies of the objects on the tape.
- Imported LTFs foreign tapes are made available for GET operations only after they are imported.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=IMPORT&bucket_id={string}
[&storage_domain_id={string}][&task_priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes

Parameter	Description	Required
bucket_id	The UUID for the bucket to which to assign the tape. Note: The bucket must have a data policy including a persistence rule for a tape storage domain.	yes
storage_domain_id	The UUID for the storage domain into which to import the tape if the data policy associated with the bucket has persistence rules for more than one tape storage domain.	no
task_priority	The priority for processing this task. The <code>task_priority</code> determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW (default)	no

Responses

Response Elements

The operation returns status only. Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request imports all non-BlackPearl LTFS tapes into the bucket named "AdminBucket".

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=IMPORT&bucket_id=AdminBucket
HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

IMPORT BLACKPEARL FOREIGN TAPE

Description

Import the specified tape with data from a different BlackPearl gateway. If one or more buckets being imported does not already exist, the user ID and data policy to use for any new buckets must be specified. The storage domain to use may optionally be specified. If not specified, the BlackPearl gateway attempts to automatically determine the most logical storage domain in which to add the tape.

Notes:

- When importing tapes, it is possible that buckets and objects with the same name may already exist on the current BlackPearl gateway. If so, when an object is imported, it may replace the existing object. If so, the versioning configured for the data policy is used. See [versioning on page 330](#).
- To import non-BlackPearl foreign tapes, see [Import LTFS Foreign Tape on page 789](#).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/?operation=IMPORT
[&data_policy_id={string}][&priority=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND]
[&storage_domain_id={string}][&user_id={string}][&verify_data_after_
import=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&verify_data_prior_to_
import=TRUE|FALSE]
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
data_policy_id	The UUID, name, or other unique attribute for the data policy to associate with any buckets on the tape that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the tape, the <code>data_policy_id</code> is required.	no

Parameter	Description	Required
priority	The priority for processing the import. The <code>priority</code> determines the resources assigned and the processing order. Imports can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no
storage_domain_id	The UUID, name, or other unique attribute for the storage domain to associate with the data on the tape. Note: If this parameter is not specified, the BlackPearl gateway attempts to determine the most logical storage domain in which to add the tape. If the tape could be imported into multiple storage domains, the import fails, unless <code>storage_domain_id</code> is provided.	no
user_id	The UUID, name, or other unique attribute for the user to associate with any buckets on the tape that do not already exist on the BlackPearl gateway. Note: If there are new buckets on the tape, the <code>user_id</code> is required.	no
verify_data_after_import	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	no
verify_data_before_import	Whether the data must be verified before the tape is imported. Values: TRUE, FALSE Note: It is recommended to verify data prior to import whenever it is possible that the tapes being imported contain objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.	no

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
```

```

<EjectDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
<EjectLabel>{string}</EjectLabel>
<EjectLocation>{string}</EjectLocation>
<EjectPending>{ YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
<FullOfData>TRUE|FALSE</FullOfData>
<Id>{string}</Id>
<LastAccessed>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  { YYYY-MM-DDThh:mm:ss.xxxZ }
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>

```

```

<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.

Parameter	Description
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664 .
Role	The role assigned to the tape. Values: Normal , Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664 .
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.

Parameter	Description
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request imports the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=IMPORT HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
```



```
<Role>NORMAL</Role>
<SerialNumber>HP-AE1WRUY90E</SerialNumber>
<State>PENDING_INSPECTION</State>
<StorageDomainMemberId/>
<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>2408088338432</TotalRawCapacity>
<Type>LTO6</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
</Data>
```

IMPORT LTFS FOREIGN TAPE

Description

Imports a non-BlackPearl LTFS foreign tape. See [Import BlackPearl Foreign Tape on page 783](#) to import a BlackPearl foreign tape.

Notes:

- No matter the specifics of the data policy associated with the bucket to which the tape is imported, the BlackPearl gateway does not make additional copies of the objects on the tape.
- Imported LTFS foreign tapes are made available for GET operations only after they are imported.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{unique identifier or
attribute}?operation=IMPORT&bucket_id={string}
[&storage_domain_id={string}]
[&task_priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is import. Value: IMPORT	yes
bucket_id	The UUID for the bucket to which to assign the tape. Note: The bucket must have a data policy including a persistence rule for a tape storage domain.	yes
storage_domain_id	The UUID for the storage domain into which to import the tape if the data policy associated with the bucket has persistence rules for more than one tape storage domain.	no
task_priority	The priority for processing this task. The <code>task_priority</code> determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW (default)	no

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
```

```

<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTF5_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTF5_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
PartiallyVerifiedEndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss. xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664 .
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664 .
StorageDomainMemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a foreign LTFS tape is waiting for ownership by the current gateway to be completed. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request imports a non-BlackPearl LTFS tape with the UUID “da8c72d7-d4c9-4cc5-94b9-34ddeb01f5b9” into the bucket named “AdminBucket”.

```
PUT http://blackpearl-hostname/_rest_/tape/da8c72d7-d4c9-4cc5-94b9-34ddeb01f5b9/?operation=IMPORT&bucket_id=AdminBucket HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>10000</AvailableRawCapacity>
  <BarCode>13b41f41-84e6-49cd-963d-afadb386d7ca</BarCode>
  <BucketId>AdminBucket</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>da8c72d7-d4c9-4cc5-94b9-34ddeb01f5b9</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>215629d1-f76c-4dbe-a342-d7c726eaf675</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber/>
  <State>PENDING_INSPECTION</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>20000</TotalRawCapacity>
  <Type>LTO5</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

INSPECT TAPE

Description

Add the specified tape to the inspection queue if it is not already in the queue.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or  
barcode}?operation=INSPECT[task_priority=URGENT|HIGH|NORMAL|LOW]
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is inspect. Value: INSPECT	yes
task_priority	The priority for processing this task. The <code>task_priority</code> determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW	no

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
  <PreviousState>
    NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
  </PreviousState>
  <Role>NORMAL|TEST</Role>

```



```

<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.

Parameter	Description
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.

Parameter	Description
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request queues the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e to be inspected.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=INSPECT HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>NORMAL|TEST</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <State>PENDING_INSPECTION</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>2408088338432</TotalRawCapacity>
  <Type>LTO6</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

INSPECT TAPES

Description

Add all tapes that have not already been inspected or are not already in the queue to be inspected, to the inspection queue.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=INSPECT[&task_
priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is inspect. Value: INSPECT	yes
task_priority	The priority for processing this task. The <code>task_priority</code> determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW (default)	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request queues all tapes that have not previously been inspected to be inspected.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=INSPECT HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MARK TAPE FOR COMPACTION

Description

Marks the tape for compaction and includes it in the next compaction cycle. The data on the tape is moved to other tape(s) in its storage domain. Once the compaction job completes, the tape is available for reuse or decommissioning.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/?operation=MARK_
FOR_COMPACTIION
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to mark for compaction. Value: MARK_FOR_COMPACTIION	yes

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
```

```

<Id>{string}</Id>
<LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>

```

```

<VerifyPending>
  CRITICAL | URGENT | HIGH | NORMAL | LOW | BACKGROUND
</VerifyPending>
<WriteProtected>TRUE | FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape is located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnershipPending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN

Parameter	Description
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This marks the tape with the UUID 2ba9f40b-1781-4fd5-b650-5ed66903ad2f for compaction.

```
PUT http://blackpearl-hostname/_rest_/tape/2ba9f40b-1781-4fd5-b650-5ed66903ad2f/?operation=MARK_FOR_COMPACTTION HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```

  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>10000</AvailableRawCapacity>
  <BarCode>018975L5</BarCode>
  <BucketId/>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>2ba9f40b-1781-4fd5-b650-5ed66903ad2f</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>2789db6e-3c81-4e86-aec6-600b4c83e452</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber/>
  <State>PENDING_INSPECTION</State>
  <StorageDomainMemberId/>

```

```

<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>1425000103936</TotalRawCapacity>
<Type>LTO5</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
</Data>

```

MODIFY TAPE

Description

Modify the eject label, eject location, or state of the specified tape.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/[?eject_label=
{string}][&eject_location={string}][&role=NORMAL|TEST][&state=NORMAL|BAD|BAR_CODE_
MISSING|DATA_CHECKPOINT_MISSING|
EJECT_FROM_EE_PENDING|EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_
PROGRESS|FORMAT_PENDING|IMPORT_IN_PROGRESS|INCOMPATIBLE|PENDING_
INSPECTION|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|ONLINE_IN_PROGRESS|ONLINE_
PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN]

```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
eject_label	Enter information to assist in the handling of the tape.	no
eject_location	Enter information to describe where the ejected tape can be located.	no
role	The assigned role of the tape. Values: NORMAL , TEST	no
state	The status of the tape. See State on page 664 .	no

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
  <PreviousState>
    NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
  </PreviousState>
  <Role>NORMAL|TEST</Role>

```

```

<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.

Parameter	Description
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.

Parameter	Description
Role	The role of the tape cartridge. Values: <ul style="list-style-type: none"> • NORMAL — The tape cartridge is assigned for normal system use. • TEST — The tape cartridge is assigned for use in drive testing.
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664 .
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request modifies the state of the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e to **lost**.

```
PUT http[s]://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?state=LOST HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <State>LOST</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>2408088338432</TotalRawCapacity>
  <Type>LTO6</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

MODIFY TAPE DRIVE

Description

Modify whether the drive is reserved for reading or writing, modify the number of tape failures before quiescing the drive, or set the tape drive to an unquiesced (**NO**) or pending quiesce (**PENDING**) state. The gateway changes the state from pending quiesce (**PENDING**) to quiesced (**YES**).

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_drive/{tape_drive_id}/[?[max_failed_
tapes={32-bit integer} [&minimum_task_priority=ANY|LOW|NORMAL|HIGH|URGENT]
[&quiesced=NO|PENDING] [&reserved_task_type=ANY|READ|WRITE]
```

To determine the UUID for a tape drive, see [Get Tape Drives on page 746](#).

Request Parameters

Parameter	Description	Required
max_failed_tapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. The default is three. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.	no
minimum_task_priority	The minimum priority task for which the drive is reserved. Values: ANY, LOW, NORMAL, HIGH, URGENT IMPORTANT Do not modify the minimum_task_priority while there are active jobs.	no
quiesced	Request that the gateway prepare the tape drive to go into an inactive state (PENDING), or return the tape drive to an active state (NO). Values: NO, PENDING	no
reserved_task_type	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY, READ, WRITE	no

Responses

Response Elements

```
<Data>
  <CleaningRequired>TRUE|FALSE</CleaningRequired>
  <ErrorMessage>{string}</ErrorMessage>
  <ForceTapeRemoval>TRUE|FALSE</ForceTapeRemoval>
  <Id>{string}</Id>
  <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
  <MaxFailedTapes>{32-bit integer}</MaxFailedTapes>
  <MfgSerialNumber>{string}</MfgSerialNumber>
```

```

<MinimumTaskPriority>
  ANY | LOW | NORMAL | HIGH | URGENT
</MinimumTaskPriority>
<PartitionId>{string}</PartitionId>
<Quiesced>NO | PENDING | YES</Quiesced>
<ReservedTaskType>ANY | READ | WRITE | MAINTENANCE</ReservedTaskType>
<SerialNumber>{string}</SerialNumber>
<State>
  ERROR | NORMAL |
  NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES | OFFLINE
</State>
<TapeId>{string}</TapeId>
<Type>
  LTO5 | LTO6 | LTO7 | LTO8 | LTOM8 | LTO9 | TS1140 | TS1150 | TS1155 | TS1160 | UNKNOWN
</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE , FALSE
ErrorMessage	A description of any current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE , FALSE
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTask Priority	The minimum priority task for which the drive is reserved. Values: ANY , LOW , NORMAL , HIGH , URGENT

Parameter	Description
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY, READ, WRITE, MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Values: ERROR, NORMAL, NOT_COMPATIBLE_IN_PARTITION_DUE_TO_NEWER_TAPE_DRIVES, OFFLINE
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN

Example

Sample Request

This request reactivates the tape drive with the UUID e2b1c2f8-85be-4350-8882-2a2e1cd8ca0e.

```
PUT http://blackpearl-hostname/_rest_/tape_drive/e2b1c2f8-85be-4350-8882-2a2e1cd8ca0e/?quiesced=NO HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <CleaningRequired>FALSE</CleaningRequired>
  <ErrorMessage/>
  <ForceTapeRemoval>FALSE</ForceTapeRemoval>
  <Id>e2b1c2f8-85be-4350-8882-2a2e1cd8ca0e</Id>
  <LastCleaned/>
  <MaxFailedTapes>3</MaxFailedTapes>
  <MfgSerialNumber>90WT008323</MfgSerialNumber>
  <MinimumTaskPriority>ANY</MinimumTaskPriority>
```

```

<PartitionId>720270ee-9d79-46d2-833b-6150724593a3</PartitionId>
<Quiesced>NO</Quiesced>
<ReservedTaskType>ANY</ReservedTaskType>
<SerialNumber>68001883</SerialNumber>
<State>NORMAL</State>
<TapeId>bbaf65f9-69fe-4212-97fe-47466fe39f61</TapeId>
<Type>LTO5</Type>
</Data>

```

MODIFY TAPE PARTITION

Description

Modify the number of drives in the partition reserved for reading or writing, enable or disable auto compaction, or set the tape partition to an unquiesced (**NO**), or pending quiesce (**PENDING**) state. The BlackPearl gateway changes the state from pending quiesce (**PENDING**) to quiesced (**YES**).

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/tape_partition/{tape_partition_id}/[?auto_
compaction_enabled=TRUE|FALSE][&auto_quiesce_enabled=TRUE|FALSE][&drive_idle_
timeout_in_minutes={32-bit integer}][&minimum_read_reserved_drives={32-bit integer}]
[&minimum_write_reserved_drives={32-bit integer}][&quiesced=NO|PENDING]

```

To determine the UUID for a tape partition, see [Get Tape Partitions on page 765](#).

Request Parameters

Parameter	Description	Required
auto_compaction_enabled	Whether to automatically compact space from tapes that are above a specified threshold of unused tape space due to deleted objects that still reside on a tape. Values: TRUE , FALSE . The default is FALSE .	no

Parameter	Description	Required
auto_quiesce_enabled	Whether to quiesce a tape drive after reaching the <code>max_failed_tapes</code> limit (see <code>max_failed_tapes</code> on page 813). Values: TRUE , FALSE . The default is TRUE .	no
drive_idle_timeout_in_minutes	The number of minutes to wait while a drive is idle before ejecting the tape and moving it back to a storage slot. The default is 15.	no
minimum_read_reserved_drives	The minimum number of drives in the partition reserved for reads. The default is 0.	no
minimum_write_reserved_drives	The minimum number of drives in the partition reserved for writes. The default is 0.	no
quiesced	Request that the gateway prepare the tape partition to go into an inactive state (PENDING), or return the tape partition to an active state (NO). Values: NO , PENDING	no

Responses

Response Elements

```

<Data>
  <AutoCompactionEnabled>TRUE|FALSE</AutoCompactionEnabled>
  <AutoQuiesceEnabled>TRUE|FALSE</AutoQuiesceEnabled>
  <DriveIdleTimeoutInMinutes>
    {32-bit integer}
  </DriveIdleTimeoutInMinutes>
  <DriveType>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|TS1140|TS1150|TS1155|TS1160|UNKNOWN
  </DriveType>
  <ErrorMessage>{string}</ErrorMessage>
  <Id>{string}</Id>
  <ImportExportConfiguration>
    SUPPORTED|NOT_SUPPORTED
  </ImportExportConfiguration>
  <LibraryId>{string}</LibraryId>
  <MinimumReadReservedDrives>
    {32-bit integer}
  </MinimumReadReservedDrives>

```

```

<MinimumWriteReservedDrives>
  {32-bit integer}
</MinimumWriteReservedDrives>
<Name>{string}</Name>
<Quiesced>NO|PENDING|YES</Quiesced>
<SerialId>{string}</SerialId>
<SerialNumber>{string}</SerialNumber>
<State>ONLINE|OFFLINE</State>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AutoCompaction Enabled	Whether auto compaction of tapes is enabled.
AutoQuiesceEnabled	Whether to quiesce a tape drive after reaching the max_failed_tapes limit (see max_failed_tapes on page 813).
DriveIdleTimeoutIn Minutes	The number of minutes to wait while a drive is idle before ejecting the tape and moving it back to a storage slot.
DriveType	The type of drives assigned to the partition. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, TS1140, TS1150, TS1155, TS1160, UNKNOWN
ErrorMessage	The description of any current error.
Id	The UUID for the partition.
ImportExport Configuration	Whether the import and export configuration of the tape library is supported by the BlackPearl gateway. If a T50e or T120 library with multiple partitions is associated with a BlackPearl gateway, you cannot use the BlackPearl gateway to eject the tapes because of the library's shared eject port. In this situation, see Spectra BlackPearl gateway User Guide for instructions for manually ejecting tapes from the BlackPearl gateway. Values: SUPPORTED, NOT_SUPPORTED
LibraryId	The UUID for the library.
MinimumRead ReservedDrives	The minimum number of drives in the partition reserved for reads.

Parameter	Description
MinimumWriteReservedDrives	The minimum number of drives in the partition reserved for writes.
Name	The name of the partition.
Quiesced	Whether the partition is in a temporarily inactive state. Values: NO , PENDING , YES
SerialID	A unique representation of the library partition serial number that remains the same even if the partition exporter is replaced.
SerialNumber	The serial number of the library partition.
State	The status of the tape partition. Values: ONLINE , OFFLINE

Example

Sample Request

This request changes the tape library partition with the UUID 15c3a202-07e9-4ff9-8e4b-05dcaa55875a to quiesced=pending.

```
PUT http://blackpearl-hostname/_rest_/tape_partition/15c3a202-07e9-4ff9-8e4b-05dcaa55875a/?quiesced=PENDING HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AutoCompactionEnabled>FALSE</AutoCompactionEnabled>
  <AutoQuiesceEnabled>>false</AutoQuiesceEnabled>
  <DriveIdleTimeoutInMinutes>7</DriveIdleTimeoutInMinutes>
  <DriveType/>
  <ErrorMessage/>
  <Id>15c3a202-07e9-4ff9-8e4b-05dcaa55875a</Id>
  <ImportExportConfiguration>
    SUPPORTED
  </ImportExportConfiguration>
  <LibraryId>8cf68800-8845-4c88-84af-3278d76f0bcf</LibraryId>
  <MinimumReadReservedDrives>0</MinimumReadReservedDrives>
  <MinimumWriteReservedDrives>0</MinimumWriteReservedDrives>
  <Name>MoviePartition</Name>
```

```

<Quiesced>PENDING</Quiesced>
<SerialId>01000090A5000950</SerialId>
<SerialNumber>21130090A5000950</SerialNumber>
<State>ONLINE</State>
</Data>

```

MODIFY TAPE PARTITIONS

Description

Sets all tape partitions to unquiesced (**NO**), or pending quiesce (**PENDING**) state. The gateway changes the state from pending quiesce (**PENDING**) to quiesced (**YES**).

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_partition/[?quiesced=NO|PENDING]
```

To determine the UUID for a tape partition, see [Get Tape Partitions on page 765](#).

Request Parameters

Parameter	Description	Required
quiesced	Request that the gateway prepare all tape partitions to go into an inactive state (PENDING) or return all tape partitions to an active state (NO). Values: NO , PENDING	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 409: Conflict (requested modification is not allowed)

Example

Sample Request

This request changes the quiesced state of all tape library partitions to “No”.

```
PUT http://blackpearl-hostname/_rest_/tape_partition/?quiesced=NO HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

ONLINE TAPE

Description

Onlines (moves the tape from the entry/exit pool to the storage pool) the specified tape. Tapes must be onlined before they can be used.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}/?operation=ONLINE
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is online. Value: ONLINE	yes

Responses

Response Elements

```

<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
  <DescriptionForIdentification>
    {string}
  </DescriptionForIdentification>
  <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
  <EjectLabel>{string}</EjectLabel>
  <EjectLocation>{string}</EjectLocation>
  <EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
  <FullOfData>TRUE|FALSE</FullOfData>
  <Id>{string}</Id>
  <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
  <LastCheckpoint>{string}</LastCheckpoint>
  <LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
  <LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
  <PartiallyVerifiedEndOfTape>
    {YYYY-MM-DDThh:mm:ss.xxxZ}
  </PartiallyVerifiedEndOfTape>
  <PartitionId>{string}</PartitionId>
  <PreviousState>
    NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|BAR_CODE_MISSING|
    CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
    DATA_CHECKPOINT_FAILURE|
    DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
    DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
    EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
    FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
    INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
    ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
    RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
    SERIAL_NUMBER_MISMATCH|UNKNOWN
  </PreviousState>
  <Role>NORMAL|TEST</Role>

```

```

<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
  LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
  TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
  |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
  CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.

Parameter	Description
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.

Parameter	Description
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request queues the tape with the UUID 1c3fe1dc-95b7-4152-a286-951d0af2a27e to be moved to the storage pool.

```
PUT http://blackpearl-hostname/_rest_/tape/1c3fe1dc-95b7-4152-a286-951d0af2a27e/?operation=ONLINE HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>2408088338432</AvailableRawCapacity>
  <BarCode>018675L6</BarCode>
  <BucketId>0acaac0a-55f9-4d6b-b410-4179d4696f37</BucketId>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>1c3fe1dc-95b7-4152-a286-951d0af2a27e</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>bd91171d-7738-4aea-b319-7abce892a7b1</PartitionId>
  <PreviousState/>
  <Role>NORMAL</Role>
  <SerialNumber>HP-AE1WRUY90E</SerialNumber>
  <State>ONLINE_PENDING</State>
  <StorageDomainMemberId/>
  <TakeOwnershipPending>FALSE</TakeOwnershipPending>
  <TotalRawCapacity>2408088338432</TotalRawCapacity>
  <Type>LTO6</Type>
  <VerifyPending/>
  <WriteProtected>FALSE</WriteProtected>
</Data>
```

ONLINE TAPES

Description

Onlines (moves tapes from the entry/exit pool to the storage pool) all tapes in the entry/exit pool. Tapes must be onlined before they can be used.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=ONLINE
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is online. Value: ONLINE	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request onlines all tapes in the entry/exit pool.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=ONLINE HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

Test Tape Drive

Description

Tests a specified tape drive. This operation takes approximately 10 minutes.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape_drive/{drive UUID or other unique attribute}/?operation=TEST[&skip_clean][&tape_id={tape UUID or other unique attribute}]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is to test a tape drive. Value: TEST	yes
skip_clean	Whether or not to skip cleaning of the tape drive before the drive is tested	no
tape_id	User UUID, name, or other unique attribute of the tape cartridge to use for the drive test.	no

Responses

Response Elements

```
<Data>
  <CleaningRequired>TRUE | FALSE</CleaningRequired>
  <ErrorMessage>{string}</ErrorMessage>
  <ForceTapeRemoval>TRUE | FALSE</ForceTapeRemoval>
  <Id>{string}</Id>
  <LastCleaned>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastCleaned>
  <MaxFailedTapes>{64-bit integer}</MaxFailedTapes>
  <MfgSerialNumber>{string}</MfgSerialNumber>
  <MinimumTaskPriority>ANY | LOW | NORMAL | HIGH | URGENT</MinimumTaskPriority>
  <PartitionId>{string}</PartitionId>
  <Quiesced>NO | PENDING | YES</Quiesced>
  <ReservedTaskType>ANY | READ | WRITE | MAINTENANCE</ReservedTaskType>
```



```

<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<TapeId>{string}</TapeId>
<Type>{string}</Type>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
CleaningRequired	Whether the tape drive indicates that it needs to be cleaned. Values: TRUE , FALSE
ErrorMessage	A description of any current error, if applicable.
ForceTapeRemoval	Whether the tape drive is in an error state and asking that the tape in it be forcibly removed. If required, this is performed before any other operations. Values: TRUE , FALSE
ID	The UUID for the tape drive.
LastCleaned	The last date and time the tape drive was cleaned in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MaxFailedTapes	The maximum number of times a drive can fail tasks with different tapes before it is no longer used. If set to zero, the BlackPearl gateway does not automatically quiesce the tape drive.
MfgSerialNumber	The manufacturer-assigned serial number for the tape drive.
MinimumTask Priority	The minimum priority task for which the drive is reserved. Values: ANY , LOW , NORMAL , HIGH , URGENT

Parameter	Description
PartitionId	The UUID for the partition to which the drive belongs.
Quiesced	Whether the tape drive is in a temporarily inactive state. Values: NO , PENDING , YES
ReservedTaskType	Whether the drive is reserved for reads only or writes only, or can be used for reads or writes. Values: ANY , READ , WRITE , MAINTENANCE
SerialNumber	The location-based serial number for the drive while it is in the library.
State	The status of the tape drive. Test Tape Drive on page 828 .
Tapeld	The UUID for the tape in the tape drive, if present.
Type	The tape format and generation of the tape drive. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , TS1140 , TS1150 , TS1155 , TS1160 , UNKNOWN

Example

Sample Request

This initiates a tape drive test to the drive with UUID 2bebf2dc-5388-4ac1-9168-063d76108fcc.

```
PUT http[s]://blackpearl-hostnam/_rest_/tape_drive/2bebf2dc-5388-4ac1-9168-063d76108fcc/?operation=test HTTP/1.1
```

Sample Response

```
<Data>
  <CleaningRequired>>false</CleaningRequired>
  <ErrorMessage/>
  <ForceTapeRemoval>>false</ForceTapeRemoval>
  <Id>2bebf2dc-5388-4ac1-9168-063d76108fcc</Id>
  <LastCleaned/>
  <MaxFailedTapes>3</MaxFailedTapes>
  <MfgSerialNumber/>
  <MinimumTaskPriority/>
  <PartitionId>1651288a-fd0d-43be-8cc5-1e7c6bbe55f</PartitionId>
  <Quiesced>NO</Quiesced>
  <ReservedTaskType>ANY</ReservedTaskType>
  <SerialNumber>td1</SerialNumber>
  <State>NORMAL</State><TapeId/>
```

```
<Type>LT05</Type>
</Data>
```

VERIFY TAPE

Description

Verifies the media content on one tape.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/{tape UUID or barcode}?operation=VERIFY
[&task_priority=URGENT|HIGH|NORMAL|LOW]
```

To determine the UUID for a tape, see [Get Tapes on page 770](#).

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is verify. Value: VERIFY	yes
task_priority	The priority for processing this task. The <code>task_priority</code> determines the resources assigned and the processing order. Verify tasks can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW	no

Responses

Response Elements

```
<Data>
  <AssignedToStorageDomain>TRUE|FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>{64-bit integer}</AvailableRawCapacity>
  <BarCode>{string}</BarCode>
  <BucketId>{string}</BucketId>
```

```

<DescriptionForIdentification>
  {string}
</DescriptionForIdentification>
<EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
<EjectLabel>{string}</EjectLabel>
<EjectLocation>{string}</EjectLocation>
<EjectPending>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectPending>
<FullOfData>TRUE|FALSE</FullOfData>
<Id>{string}</Id>
<LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
<LastCheckpoint>{string}</LastCheckpoint>
<LastModified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastModified>
<LastVerified>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTON_IN_PROGRESS|BAD|BAR_CODE_MISSING|
  CANNOT_FORMAT_DUE_TO_WRITE_PROTECTION|
  DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|
  FORMAT_PENDING|IMPORT_IN_PROGRESS|IMPORT_PENDING|
  INCOMPATIBLE|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_INSPECTION|
  RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_PENDING|
  SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>

```

```

<StorageDomainMemberId>{string}</StorageDomainMemberId>
<TakeOwnershipPending>TRUE|FALSE</TakeOwnershipPending>
<TotalRawCapacity>{64-bit integer}</TotalRawCapacity>
<Type>
    LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|
    TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE
    |UNKNOWN|FORBIDDEN
</Type>
<VerifyPending>
    CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
</VerifyPending>
<WriteProtected>TRUE|FALSE</WriteProtected>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE , FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format YYYY-MM-DDThh:mm:ss.xxxZ. If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.

Parameter	Description
FullOfData	Whether the tape is completely full of data. Values: TRUE , FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the tape was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664 .
Role	The role assigned to the tape. Values: Normal , Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664 .
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.

Parameter	Description
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This verifies the content of the tape with the UUID 2ba9f40b-1781-4fd5-b650-5ed66903ad2f.

```
PUT http://blackpearl-hostname/_rest_/tape/2ba9f40b-1781-4fd5-b650-5ed66903ad2f/?operation=VERIFY HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AssignedToStorageDomain>FALSE</AssignedToStorageDomain>
  <AvailableRawCapacity>10000</AvailableRawCapacity>
  <BarCode>018975L5</BarCode>
  <BucketId/>
  <DescriptionForIdentification/>
  <EjectDate/>
  <EjectLabel/>
  <EjectLocation/>
  <EjectPending/>
  <FullOfData>FALSE</FullOfData>
  <Id>2ba9f40b-1781-4fd5-b650-5ed66903ad2f</Id>
  <LastAccessed/>
  <LastCheckpoint/>
  <LastModified/>
  <LastVerified/>
  <PartiallyVerifiedEndOfTape/>
  <PartitionId>2789db6e-3c81-4e86-aec6-600b4c83e452</PartitionId>
  <PreviousState/>
```

```

<Role>NORMAL</Role>
<SerialNumber/>
<State>PENDING_INSPECTION</State>
<StorageDomainMemberId/>
<TakeOwnershipPending>FALSE</TakeOwnershipPending>
<TotalRawCapacity>1425000103936</TotalRawCapacity>
<Type>LTO5</Type>
<VerifyPending/>
<WriteProtected>FALSE</WriteProtected>
</Data>

```

VERIFY TAPES

Description

Verifies the media contents across all tapes. This request may take a very long time.

Note: To cancel this process, see [Cancel Verify of Tapes](#) on page 697.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/tape/?operation=VERIFY[&task_
priority=URGENT|HIGH|NORMAL|LOW]
```

Request Parameters

Parameter	Description	Required
operation	The operation to perform. For this request, the operation is verify. Value: VERIFY	yes
task_priority	The priority for processing this task. The <code>task_priority</code> determines the resources assigned and the processing order. Verify tasks can be interrupted every 30 minutes if a job with a higher priority is received. Values: URGENT, HIGH, NORMAL, LOW (default)	no

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 207: Multi-Status (with list of errors)

Example

Sample Request

This request verifies the content on all tapes.

```
PUT http://blackpearl-hostname/_rest_/tape/?operation=VERIFY HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

VOLUME F - NOTIFICATION OPERATIONS

This section describes the operations available to handle notifications.

Notification of tape library events may also be configured from the Spectra Logic tape library's web interface. See the *User Guide* for your tape library (see support.spectralogic.com/documentation).

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Get Job Completed Notification Registration	939
Get Job Completed Notification Registrations	942
Get Job Created Notification Registration	945
Get Job Created Notification Registrations	948
Get Job Creation Failed Notification Registration	952
Get Job Creation Failed Notification Registrations	954
Get Object Cached Notification Registration	958
Get Object Cached Notification Registrations	961
Get Object Lost Notification Registration	965
Get Object Lost Notification Registrations	968
Get Object Persisted Notification Registration	971
Get Object Persisted Notification Registrations	974
Get Pool Failure Notification Registration	978
Get Pool Failure Notification Registrations	980
Get Storage Domain Failure Notification Registration	984
Get Storage Domain Failure Notification Registrations	987
Get System Failure Notification Registration	990
Get System Failure Notification Registrations	993
Get Tape Failure Notification Registration	997

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CREATE AMAZON S3 TARGET FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for Amazon S3 target failures.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/s3_target_failure_notification_registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>|POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST (default), PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for Amazon S3 target failure notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/s3_target_failure_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <CreationDate>2017-02-22T00:51:00.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>486e5212-c4b7-43f4-b49d-3ae8b703204a</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
```

```
<NotificationEndPoint>a</NotificationEndPoint>
<NotificationHttpMethod>DELETE</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId/>
</Data>
```

Sample Notification Payload

Below is a sample Amazon S3 target failure notification payload:

```
<Name>S3TargetFailureNotificationPayload</Name>
<Payload>
  <Date>2016-04-07T23:27:27.000Z</Date>
  <ErrorMessage>{text}</ErrorMessage>
  <NotificationGenerationDate/>
  <TargetId>9dea633e-f1bc-4ccd-9c5e-651bdae65f3c</TargetId>
  <Type>NOT_ONLINE</Type>
</Payload>
```

CREATE AZURE TARGET FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for Azure target failures.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/azure_target_failure_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```


Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST (default), PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for Azure target failure notifications to be sent to Azure-client-hostname.

```
POST http://blackpearl-hostname/_rest_/azure_target_failure_notification_registration/?notification_end_point=Azure-client-hostname HTTP/1.1
```

Sample Notification Payload

Below is a sample Azure target failure notification payload:

```
<Name>AzureTargetFailureNotificationPayload</Name>
<Payload>
  <Date>2016-04-07T23:27:27.000Z</Date>
  <ErrorMessage>{text}</ErrorMessage>
  <NotificationGenerationDate/>
  <TargetId>f42e7219-6285-4d39-801a-8987254e341e</TargetId>
  <Type>NOT_ONLINE</Type>
</Payload>
```

CREATE BUCKET CHANGE NOTIFICATION REGISTRATION

Description

Create a notification registration for bucket changes.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/bucket_change_notification_registration/?notification_end_point={string} [&bucketID={string} &format=DEFAULT|JSON|XML] [&naming_convention=CONCAT|LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
bucketID	The UUID for the bucket for which you want notifications. If not included, notifications are sent for all buckets.	no
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <BucketID>{string}</BucketID>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>

```

```

<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketID	The UUID for the bucket for which notifications are sent.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST (default), PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.

Parameter	Description
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for a bucket with the UUID 0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd to be sent to an end point named Azure-client-hostname.

```
POST http://blackpearl-hostname/_rest_/bucket_change_notification_
registratiionn/?notification_end_point=Azure-client-hostname&bucketID=0e8e91ab-a622-
4fe3-9e3c-7696d9fba7cd HTTP/1.1
```

Sample Notification Payload

Below is a sample bucket change notification payload:

```
<Name>BucketChangesNotificationPayload</Name>
<Payload>
  <Changes>
    <BucketId>0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd</BucketId>
    <Id>8282153d-8c51-476f-9654-56c1f6ae0035</Id>
    <ObjectName>o1</ObjectName>
    <SequenceNumber>1</SequenceNumber>
    <Type>CREATE</Type>
    <VersionId>567ce05b-bbd1-4afd-85f5-416d793027cb</VersionId>
  </Changes>
  <Changes>
    <BucketId>0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd</BucketId>
    <Id>bd195b2d-0b6c-40cf-ac9a-c93b674a44e9</Id>
    <ObjectName>o1</ObjectName>
    <SequenceNumber>2</SequenceNumber>
    <Type>MARK_LATEST</Type>
    <VersionId>049df9ae-30f9-41c8-be68-28c1e3688fe4</VersionId>
  </Changes>
  <LastProcessedEvent>0</LastProcessedEvent>
  <NotificationGenerationDate/>
</Payload>
```

CREATE DS3 TARGET FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for DS3 target failures.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/ds3_target_failure_notification_registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST (default), PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for DS3 target failure notifications to be sent to Spectra-DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/ds3_target_failure_notification_registration/?notification_end_point=Spectra-DS3-client-hostname HTTP/1.1
```

Sample Notification Payload

Below is a sample DS3 target failure notification payload:

```
<Name>Ds3TargetFailureNotificationPayload</Name>
<Payload>
  <Date>2016-04-07T23:27:27.000Z</Date>
  <ErrorMessage>{text}</ErrorMessage>
  <NotificationGenerationDate/>
  <TargetId>85f02c30-4f83-41b0-ba2f-01308be3ece6</TargetId>
  <Type>NOT_ONLINE</Type>
</Payload>
```

CREATE JOB COMPLETED NOTIFICATION REGISTRATION

Description

Create a notification registration for job completed events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/job_completed_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&job_id=
{string}] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_
FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
job_id	The UUID or a unique attribute for the job. If not included, notifications are sent for all jobs.	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <JobId>{string}</JobId>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that completed.
LastFailure	The exception message for the last failure to send a notification to this notification registration.

Parameter	Description
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for job completed notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/job_completed_notification_
registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <CreationDate>2014-10-02T11:40:25.683Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>e2ae9bc2-d70e-46d4-9af7-82d971827cb8</Id>
  <JobId/>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>2bb8b755-857b-4eec-91cd-cef188f55aac</UserId>
</Data>
```

Sample Notification Payload

Below is a sample job completed notification payload:

```
<Name>JobCompletedNotificationPayload</Name>
<Payload>
  <CancelOccurred>TRUE</CancelOccurred>
  <JobId>d7f5e47c-fbe6-4067-b834-9f829f150333</JobId>
  <NotificationGenerationDate/>
  <ObjectsNotPersisted>
    <Object Id="6d0c304e-8609-4f69-8e57-ad61787c2172"
      Latest="true" Length="10" Name="o1" Offset="0"
      VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200"/>
    <Object Id="628a1df8-d440-4caf-9e31-089b95b5cbe7"
      Latest="true" Length="10" Name="o1" Offset="0"
      VersionId="01a33693-ba75-4668-a2c9-89fa423b219f"/>
  </ObjectsNotPersisted>
</Payload>
```

CREATE JOB CREATED NOTIFICATION REGISTRATION

Description

Create a notification registration for job created events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/job_created_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
Userld	The UUID for The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for job created notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/job_created_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
  <CreationDate>2014-10-02T11:40:25.983Z</CreationDate>
```

```
  <Format>DEFAULT</Format>
```

```
  <Id>dfc027c8-e3ba-4e8a-a484-66d5577d5040</Id>
```

```
  <LastFailure/>
```

```
  <LastHttpResponseCode/>
```

```
  <LastNotification/>
```

```
  <NamingConvention>
```

```
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
```

```
</NamingConvention>
```



```
<NotificationEndPoint>
  DS3-client-hostname
</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId/>
</Data>
```

Sample Notification Payload

Below is a sample job created notification payload:

```
<Name>JobCreatedNotificationPayload</Name>
<Payload>
  <JobId>dd4a2196-0255-489d-8706-ae5ffe1335e8</JobId>
  <NotificationGenerationDate/>
</Payload>
```

CREATE JOB CREATION FAILED NOTIFICATION REGISTRATION

Description

Create a notification registration for job creation failures.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/job_creation_failed_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for job creation failed notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/job_creation_failed_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
  <CreationDate>2016-06-09T01:14:48.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>764544453-4969-419d-99d3-96fa533760ad</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample job creation failed notification payload:

```
<Name>JobCreationFailedNotificationPayload</Name>
<Payload>
  <NotificationGenerationDate/>
  <TapesMustBeOnline>
  <TapesToOnline>
    <TapeBarCodes>018616L6</TapeBarCodes>
    <TapeBarCodes>138271L6</TapeBarCodes>
  </TapesToOnline>
```

```

</TapesMustBeOnlined>
<UserName>Test</UserName>
<ErrorMessage/>
</Payload>

```

CREATE OBJECT CACHED NOTIFICATION REGISTRATION

Description

Create a notification registration for object cached events.

Requests

Syntax

```

POST http[s]://{datapathDNSname}/_rest_/object_cached_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&job_id=
{string}] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_
FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]

```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
job_id	The UUID or a unique attribute for the job. If not included, notifications are sent for all jobs.	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <JobId>{string}</JobId>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that cached the object.
LastFailure	The exception message for the last failure to send a notification to this notification registration.

Parameter	Description
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for object cached notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/object_cached_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

HTTP/1.1 201 CREATED

```
<Data>
  <CreationDate>2014-10-16T18:33:47.522Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>b7ed9175-aeb5-4cee-a696-0c858382453f</Id>
  <JobId/>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample objects cached notification payload:

```
<Name>S3ObjectsCachedNotificationPayload</Name>
<Payload>
  <JobId>f2f5296b-4d93-45f7-a03b-a3161553003f</JobId>
  <NotificationGenerationDate/>
  <Objects>
    <Object Id="f7b3b9b1-6cc5-4ba4-89e8-6138bba2af8b"
      Latest="true" Length="100" Name="o1" Offset="0"
      VersionId="01a33693-ba75-4668-a2c9-89fa423b219f">
    <Object Id="60b51e5f-2218-4c63-affa-450cd2da7a79"
      Latest="true" Length="100" Name="o2" Offset="0"
      VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
  </Objects>
</Payload>
```


CREATE OBJECT LOST NOTIFICATION REGISTRATION

Description

Create a notification registration for object lost events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/object_lost_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
Userld	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for object lost notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/object_lost_notification_
registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

HTTP/1.1 201 CREATED

```
<Data>
  <CreationDate>2014-10-02T11:40:32.265Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>aa663b70-878a-4d96-a1ee-6dd5a004e185</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample object lost notification payload:

```
<Name>S3ObjectsLostNotificationPayload</Name>
<Payload>
  <NotificationGenerationDate/>
  <Objects>
    <Object Bucket="bucket"
      Id="07c0da3d-73ce-4ca1-b987-e3b55f83dbb7"
      Latest="true" Length="100" Name="o1" Offset="0"
      VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
    <Object Bucket="bucket"
      Id="d95fb8d7-8dc0-4a4d-b85d-eb7c31e0da42"
      Latest="true" Length="100" Name="o1" Offset="0"
      VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
  </Objects>
</Payload>
```

CREATE OBJECT PERSISTED NOTIFICATION REGISTRATION

Description

Create a notification registration for object persisted events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/object_persisted_notification_registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&job_id={string}] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
job_id	The UUID or a unique attribute for the job. If not included, notifications are sent for all jobs.	
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <JobId>{string}</JobId>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that wrote the object.
LastFailure	The exception message for the last failure to send a notification to this notification registration.

Parameter	Description
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for object persisted notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/object_persisted_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <CreationDate>2014-10-02T11:40:19.821Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>9c94de0f-a8c5-454f-abcb-f3ee47c9d8b1</Id>
  <JobId/>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample object persisted notification payload:

```
<Name>S3ObjectsPersistedNotificationPayload</Name>
<Payload>
  <JobId>4eabeacb-af9d-45bd-93aa-6aled98309ba</JobId>
  <NotificationGenerationDate/>
  <Objects>
    <Object Id="7e0de092-edf1-4027-a342-a13361ccc5f"
      Latest="true" Length="100" Name="o1" Offset="0"
      VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
    <Object Id="42039297-1c10-476d-a4ba-316cdab667e5"
      Latest="true" Length="100" Name="o1" Offset="0"
      VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
  </Objects>
</Payload>
```


CREATE POOL FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for pool failure events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/pool_failure_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
Userld	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for pool failure notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/pool_failure_notification_
registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

HTTP/1.1 201 CREATED

```
<Data>
  <CreationDate>2015-10-02T15:57:19.614Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>3cbe9025-8b65-4bc0-bae9-8abf18afb882</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample pool failure notification payload:

```
<Name>PoolFailureNotificationPayload</Name>
<Payload>
  <Date>Wed Sep 23 12:48:45 MDT 2015</Date>
  <ErrorMessage>The inspection failed.</ErrorMessage>
  <NotificationGenerationDate/>
  <PoolId>fc732108-3d0b-49ac-979d-5dbdc3b2f6a5</PoolId>
  <Type>INSPECT_FAILED</Type>
</Payload>
```

CREATE STORAGE DOMAIN FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for storage domain failure events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/storage_domain_failure_notification_registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```
<Data>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
```

```

<NamingConvention>
  CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
  CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT

Parameter	Description
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for storage domain failure notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/storage_domain_failure_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
  <CreationDate>2015-07-13T11:33:15.91Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
```

```
</Data>
```

CREATE SYSTEM FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for storage domain failure events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/system_failure_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpStatusCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for system failure notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/system_failure_notification_registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
```

```
<Data>
```

```
<CreationDate>2015-12-07T03:20:14.000Z</CreationDate>
```

```
<Format>DEFAULT</Format>
```

```
<Id>50df41ca-bec6-412c-b770-18f944a3e06d</Id>
```

```
<LastFailure/>
```

```
<LastHttpResponseCode/>
```

```
<LastNotification/>
```

```
<NamingConvention>
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
</NamingConvention>
<NotificationEndPoint>
  DS3-client-hostname
</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId/>
</Data>
```

Sample Notification Payload

Below is a sample storage domain failure notification payload:

```
<Name>SystemFailureNotificationPayload</Name>
<Payload>
  <Date>2015-12-04T21:01:24.000Z</Date>
  <ErrorMessage>There was an error</ErrorMessage>
  <NotificationGenerationDate/>
  <Type>RECONCILE_TAPE_ENVIRONMENT_FAILED</Type>
</Payload>
```

CREATE TAPE FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for tape failure events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/tape_failure_notification_
registration/?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_
convention=CONCAT_LOWER_CASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_
UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWER_CASE] [&notification_http_
method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for tape failure notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/tape_failure_notification_
registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

```
HTTP/1.1 201 CREATED
<Data>
  <CreationDate>2015-07-13T11:33:15.988Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>086c89a6-2a57-44d0-9968-fbcab161dd85</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample tape failure notification payload:

```
<Name>TapeFailureNotificationPayload</Name>
<Payload>
  <Date>Mon Jun 08 16:20:42 MDT 2015</Date>
  <ErrorMessage>There was an error</ErrorMessage>
  <NotificationGenerationDate/>
  <TapeDriveId>703cbc16-6a53-4ba8-829d-b1aa64c3cc10</TapeDriveId>
  <TapeId>09ae4429-2e34-41a7-8a03-0d28b901871d</TapeId>
  <Type>INSPECT_FAILED</Type>
</Payload>
```

CREATE TAPE PARTITION FAILURE NOTIFICATION REGISTRATION

Description

Create a notification registration for tape partition failure events.

Requests

Syntax

```
POST http[s]://{datapathDNSname}/_rest_/tape_partition_failure_notification_registration/ ?notification_end_point={string} [&format=DEFAULT|JSON|XML] [&naming_convention=CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE] [&notification_http_method=POST|PUT]
```

Request Parameters

Parameter	Description	Required
notification_end_point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.	yes
format	The format of the notification. Values: DEFAULT (XML), JSON , XML	no
naming_convention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE (default), CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE	no
notification_http_method	The HTTP request method type used to send the notification. Values: POST (default), PUT	no

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpStatusCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
Userld	The UUID for the user who created the notification registration.

Example

Sample Request

This request creates a registration for tape partition failure notifications to be sent to DS3-client-hostname.

```
POST http://blackpearl-hostname/_rest_/tape_partition_failure_notification_
registration/?notification_end_point=DS3-client-hostname HTTP/1.1
```

Sample Response

HTTP/1.1 201 CREATED

```
<Data>
  <CreationDate>2014-10-02T11:40:19.821Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>085586b1-23e2-40bd-93e4-92b236af41e6</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId/>
</Data>
```

Sample Notification Payload

Below is a sample tape partition failure notification payload:

```
<Name>TapePartitionFailureNotificationPayload</Name>
<Payload>
  <Date>Mon Jun 08 16:20:43 MDT 2015</Date>
  <ErrorMessage>No cleaning tape available.</ErrorMessage>
  <NotificationGenerationDate/>
  <PartitionId>08bde4a0-5125-46b0-b9d2-8efb8af7435c</PartitionId>
  <Type>CLEANING_TAPE_REQUIRED</Type>
</Payload>
```

DELETE AMAZON S3 TARGET FAILURE NOTIFICATION REGISTRATION

Description

Delete an Amazon S3 target failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/s3_target_failure_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Amazon S3 Target Failure Notification Registrations on page 912](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the Amazon S3 target failure notification registration with the UUID 934fc113-1d0a-40f4-ad14-57c6e5b86fee.

```
DELETE http://blackpearl-hostname/_rest_/s3_target_failure_notification_registration/934fc113-1d0a-40f4-ad14-57c6e5b86fee/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE AZURE TARGET FAILURE NOTIFICATION REGISTRATION

Description

Delete an Azure target failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/azure_target_failure_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Azure Target Failure Notification Registrations on page 919](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the Azure target failure notification registration with the UUID 9098a43c-588d-4036-80d7-fdd8851aec47.

```
DELETE http://blackpearl-hostname/_rest_/azure_target_failure_notification_registration/9098a43c-588d-4036-80d7-fdd8851aec47/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE BUCKET CHANGE NOTIFICATION REGISTRATION

Description

Delete a bucket change notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/bucket_change_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Bucket Changes Notification Registrations](#) on page 925.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the bucket change notification registration with the UUID 8282153d-8c51-476f-9654-56c1f6ae0035.

```
DELETE http://blackpearl-hostname/_rest_/bucket_change_notification_  
registration/8282153d-8c51-476f-9654-56c1f6ae0035/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE DS3 TARGET FAILURE NOTIFICATION REGISTRATION

Description

Delete a DS3 target failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/ds3_target_failure_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get DS3 Target Failure Notification Registrations](#) on page 935.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the DS3 target failure notification registration with the UUID 2a8154df-fa4c-4290-a12f-2865988ab2e9.

```
DELETE http://blackpearl-hostname/_rest_/ds3_target_failure_notification_registration/2a8154df-fa4c-4290-a12f-2865988ab2e9/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE JOB COMPLETED NOTIFICATION REGISTRATION

Description

Delete a job completed notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job_completed_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Job Completed Notification Registrations](#) on page 942.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the job completed notification registration with the UUID e2ae9bc2-d70e-46d4-9af7-82d971827cb8.

```
DELETE http://blackpearl-hostname/_rest_/job_completed_notification_  
registration/e2ae9bc2-d70e-46d4-9af7-82d971827cb8/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE JOB CREATED NOTIFICATION REGISTRATION

Description

Delete a job created notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job_created_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Job Created Notification Registrations on page 948](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the job created notification registration with the UUID dfe027c8-e3ba-4e8a-a484-66d5577d5040.

```
DELETE http://blackpearl-hostname/_rest_/job_created_notification_  
registration/dfe027c8-e3ba-4e8a-a484-66d5577d5040/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```


DELETE JOB CREATION FAILED NOTIFICATION REGISTRATION

Description

Delete a job creation failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/job_creation_failed_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Job Creation Failed Notification Registrations on page 954](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the job creation failure notification registration with the UUID 76454453-4969-419d-99d3-96fa533760ad.

```
DELETE http://blackpearl-hostname/_rest_/job_creation_failed_notification_registration/76454453-4969-419d-99d3-96fa533760ad/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE OBJECT CACHED NOTIFICATION REGISTRATION

Description

Delete an object cached notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/object_cached_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Object Cached Notification Registrations on page 961](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the object cached notification registration with the UUID b7ed9175-aeb5-4cee-a696-0c858382453f.

```
DELETE http://blackpearl-hostname/_rest_/object_cached_notification_  
registration/b7ed9175-aeb5-4cee-a696-0c858382453f/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE OBJECT LOST NOTIFICATION REGISTRATION

Description

Delete an object lost notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/object_lost_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Object Lost Notification Registrations on page 968](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the object lost notification registration with the UUID aa663b70-878a-4d96-a1ee-6dd5a004e185.

```
DELETE http://blackpearl-hostname/_rest_/object_lost_notification_  
registration/aa663b70-878a-4d96-a1ee-6dd5a004e185/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE OBJECT PERSISTED NOTIFICATION REGISTRATION

Description

Delete an object persisted notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/object_persisted_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Object Persisted Notification Registrations on page 974](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the object persisted notification registration with the UUID 9c94de0f-a8c5-454f-abcb-f3ee47c9d8b1.

```
DELETE http://blackpearl-hostname/_rest_/object_persisted_notification_registration/9c94de0f-a8c5-454f-abcb-f3ee47c9d8b1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE POOL FAILURE NOTIFICATION REGISTRATION

Description

Delete a pool failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/pool_failure_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Pool Failure Notification Registrations on page 980](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the pool failure notification registration with the UUID 3a082f87-e720-4d60-839d-d45216647f00.

```
DELETE http://blackpearl-hostname/_rest_/pool_failure_notification_  
registration/3a082f87-e720-4d60-839d-d45216647f00/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE STORAGE DOMAIN FAILURE NOTIFICATION REGISTRATION

Description

Delete a storage domain failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/storage_domain_failure_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Storage Domain Failure Notification Registrations](#) on page 987.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the storage domain failure notification registration with the UUID ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6.

```
DELETE http://blackpearl-hostname/_rest_/storage_domain_failure_notification_registration/ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE SYSTEM FAILURE NOTIFICATION REGISTRATION

Description

Delete a system failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/system_failure_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get System Failure Notification Registrations](#) on page 993.

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the system failure notification registration with the UUID 50df41ca-bec6-412c-b770-18f944a3e06d.

```
DELETE http://blackpearl-hostname/_rest_/storage_domain_failure_notification_  
registration/50df41ca-bec6-412c-b770-18f944a3e06d/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

DELETE TAPE FAILURE NOTIFICATION REGISTRATION

Description

Delete a tape failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_failure_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Tape Failure Notification Registrations on page 999](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape failure notification registration with the UUID 086c89a6-2a57-44d0-9968-fbcab161dd85.

```
DELETE http://blackpearl-hostname/_rest_/tape_failure_notification_  
registration/086c89a6-2a57-44d0-9968-fbcab161dd85/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```


DELETE TAPE PARTITION FAILURE NOTIFICATION REGISTRATION

Description

Delete a tape partition failure notification registration.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/tape_partition_failure_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Tape Partition Failure Notification Registrations on page 1005](#).

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 404: Not Found

Example

Sample Request

This request deletes the tape partition failure notification registration with the UUID 085586b1-23e2-40bd-93e4-92b236af41e6.

```
DELETE http://blackpearl-hostname/_rest_/tape_partition_failure_notification_registration/085586b1-23e2-40bd-93e4-92b236af41e6/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET AMAZON S3 TARGET FAILURE NOTIFICATION REGISTRATION

Description

Get information about an Amazon S3 target failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target_failure_notification_registration/  
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Amazon S3 Target Failure Notification Registrations on page 912](#).

Responses

Response Elements

```
<Data>  
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>  
  <Format>DEFAULT | JSON | XML</Format>  
  <Id>{string}</Id>  
  <LastFailure>{string}</LastFailure>  
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>  
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>  
  <NamingConvention>  
    CONCAT_LOWERCASE | CONSTANT | UNDERSCORED |  
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE |  
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE  
  </NamingConvention>  
  <NotificationEndPoint>{string}</NotificationEndPoint>  
  <NotificationHttpMethod>POST | PUT</NotificationHttpMethod>  
  <NumberOfFailuresSinceLastSuccess>  
    {32-bit integer}  
  </NumberOfFailuresSinceLastSuccess>  
  <UserId>{string}</UserId>  
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the Amazon S3 target failure notification registration with the UUID 2a8154df-fa4c-4290-a12f-2865988ab2e9.

```
GET http://blackpearl-hostname/_rest_/s3_target_failure_notification_
registration/2a8154df-fa4c-4290-a12f-2865988ab2e9/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2017-01-09T01:14:51.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>2a8154df-fa4c-4290-a12f-2865988ab2e9</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>26d35f40-d899-441d-9506-937b7cdd67eb</UserId>
</Data>
```

GET AMAZON S3 TARGET FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all Amazon S3 target failure notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/s3_target_failure_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <S3TargetFailureNotificationRegistration>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
```

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

<LastHttpStatusCode>
  {32-bit integer}
</LastHttpStatusCode>
<LastNotification>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastNotification>
<NamingConvention>
  CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
  CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</S3TargetFailureNotificationRegistration>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3TargetFailure Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpStatusCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.

Parameter	Description
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all Amazon S3 target failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/s3_target_failure_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<S3TargetFailureNotificationRegistration>
  <CreationDate>2016-06-09T01:14:52.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>a662e451-9db7-4274-8c05-845d2a422988</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
```

```
<NotificationEndPoint>
  DS3-client-hostname
</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId>6698ab0d-2257-47ff-bec1-ec5d1f9f2e61</UserId>
</S3TargetFailureNotificationRegistration>
</Data>
```

GET AZURE TARGET FAILURE NOTIFICATION REGISTRATION

Description

Get information about an Azure target failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/azure_target_failure_notification_
registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Azure Target Failure Notification Registrations on page 919](#).

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWER_CASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWER_CASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the Azure target failure notification registration with the UUID 2a8154df-fa4c-4290-a12f-2865988ab2e9.

```
GET http://blackpearl-hostname/_rest_/azure_target_failure_notification_registration/2a8154df-fa4c-4290-a12f-2865988ab2e9/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2017-02-22T00:51:02.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>faa51a2f-ac5d-4349-be79-a036a6b029f3</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
```

```

<NotificationEndPoint>a</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId>d40362ad-dd4e-48fd-95d4-57603d1265a8</UserId>
</Data>

```

GET AZURE TARGET FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all Azure target failure notification registrations.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/azure_target_failure_notification_
registration/[?last_page][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&user_id={string}]

```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Parameter	Description	Required
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```

<Data>
  <AzureTargetFailureNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>
      {32-bit integer}
    </LastHttpStatusCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </AzureTargetFailureNotificationRegistration>
  ...
</Data>

```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AzureTargetFailure Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all Azure target failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/azure_target_failure_notification_registration/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AzureTargetFailureNotificationRegistration>
    <CreationDate>2017-02-22T00:50:59.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>4f1b3f59-b3e6-452f-8c52-207d380047cb</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>a</NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>5c9ec971-11af-48cf-a348-21e30bc5c22b</UserId>
  </AzureTargetFailureNotificationRegistration>
  <AzureTargetFailureNotificationRegistration>
    <CreationDate>2017-02-22T00:50:59.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>0759cc0d-92f0-45e0-bad9-f9b664495881</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>b</NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
```

```
<UserId>5c9ec971-11af-48cf-a348-21e30bc5c22b</UserId>
</AzureTargetFailureNotificationRegistration>
</Data>
```

GET BUCKET CHANGE NOTIFICATION REGISTRATION

Description

Get information about a bucket change notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket_change_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Bucket Changes Notification Registrations](#) on page 925.

Responses

Response Elements

```
<Data>
  <BucketID>{string}</BucketID>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
```

```

<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketID	The UUID for the bucket for which notifications are sent.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.

Parameter	Description
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the bucket change notification registration with the UUID 2a8154df-fa4c-4290-a12f-2865988ab2e9.

```
GET http://blackpearl-hostname/_rest_/bucket_change_notification_
registration/2a8154df-fa4c-4290-a12f-2865988ab2e9/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <BucketId>0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd</BucketId>
  <CreationDate>2017-02-22T00:51:02.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>faa51a2f-ac5d-4349-be79-a036a6b029f3</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>a</NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>d40362ad-dd4e-48fd-95d4-57603d1265a8</UserId>
</Data>
```

GET BUCKET CHANGES NOTIFICATION REGISTRATIONS

Description

Get a list of all bucket changes notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket_changes_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification registration.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <BucketChangesNotificationRegistration>
    <BucketID>{string}</BucketID>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpResponseCode>
      {32-bit integer}
    </LastHttpResponseCode>
    <LastNotification>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </BucketChangesNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
BucketChangesNotificationRegistration	The container for the information for a single notification registration.
BucketID	The UUID for the bucket for which notifications are sent.

Parameter	Description
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all bucket change notification registrations.

```
GET http://blackpearl-hostname/_rest_/bucket_change_notification_registration/
HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <BucketChangesNotificationRegistration>
    <CreationDate>2020-02-22T00:50:59.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>4f1b3f59-b3e6-452f-8c52-207d380047cb</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>a</NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>5c9ec971-11af-48cf-a348-21e30bc5c22b</UserId>
  </BucketChangesNotificationRegistration>
  <BucketChangesNotificationRegistration>
    <CreationDate>2020-02-22T00:50:59.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>0759cc0d-92f0-45e0-bad9-f9b664495881</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>b</NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>5c9ec971-11af-48cf-a348-21e30bc5c22b</UserId>
  </BucketChangesNotificationRegistration>
</Data>
```

GET BUCKET HISTORY

Description

Get the history of changes to a bucket.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/bucket_history/[?bucket_ID={string}][&last_page][&min_sequence_number={64-bit integer}][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
bucket_id	The UUID or other unique identifier for the bucket. If not included, changes for all buckets are returned.	no
last_page	If included, only the last page of results is returned.	no
min_sequence_number	The starting sequence number to list. The default is 1.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```

<BucketHistory>
  <Changes>
    <BucketID>{string}</BucketID>
    <ObjectCreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</ObjectCreationDate>
    <Id>{string}</Id>
    <ObjectName>{string}</ObjectName>
    <SequenceNumber>{32-bit integer}</SequenceNumber>
    <Type>CREATE|DELETE|MARK_LATEST|UNMARK_LATEST</Type>
    <VersionId>{string}</VersionId>
  </Changes>
  ...
</BucketHistory>

```

where the response elements are defined as follows:

Parameter	Description
BucketHistory	The container for the response.
Changes	The container for the information for a single change.
BucketID	The UUID for the bucket for which notifications are sent.
ID	The UUID for the change.
ObjectCreationDate	The date the object was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
ObjectName	The name for the object.
SequenceNumber	The number indicating the order in which the changes in the bucket occurred.
Type	The type of change. Values: Create , Delete , Mark_Latest , Unmark_Latest .
VersionID	The UUID of the version of the object.

Example

Sample Request

This request gets the bucket history for the bucket with the UUID 0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd.

```
GET http://blackpearl-hostname/_rest_/bucket_history/[?bucket_ID=0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<BucketHistoryEvent>
  <Changes>
    <BucketId>0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd</BucketId>
    <Id>8282153d-8c51-476f-9654-56c1f6ae0035</Id>
    <ObjectCreationDate>01</ObjectCreationDate>
    <ObjectName>o1</ObjectName>
    <SequenceNumber>1</SequenceNumber>
    <Type>CREATE</Type>
    <VersionId>567ce05b-bbd1-4afd-85f5-416d793027cb</VersionId>
  </Changes>
  <Changes>
    <BucketId>0e8e91ab-a622-4fe3-9e3c-7696d9fba7cd</BucketId>
    <Id>bd195b2d-0b6c-40cf-ac9a-c93b674a44e9</Id>
    <ObjectName>o1</ObjectName>
    <SequenceNumber>2</SequenceNumber>
    <Type>MARK_LATEST</Type>
    <VersionId>049dffae-30f9-41c8-be68-28c1e3688fe4</VersionId>
  </Changes>
</BucketHistoryEvent>
```

GET DS3 TARGET FAILURE NOTIFICATION REGISTRATION

Description

Get information about a DS3 target failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target_failure_notification_registration/
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get DS3 Target Failure Notification Registrations](#) on page 935.

Responses

Response Elements

```
<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the DS3 target failure notification registration with the UUID 2a8154df-fa4c-4290-a12f-2865988ab2e9.

```
GET http://blackpearl-hostname/_rest_/ds3_target_failure_notification_registration/2a8154df-fa4c-4290-a12f-2865988ab2e9/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <CreationDate>2016-06-09T01:14:51.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>2a8154df-fa4c-4290-a12f-2865988ab2e9</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>26d35f40-d899-441d-9506-937b7cdd67eb</UserId>
</Data>
```

GET DS3 TARGET FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all DS3 target failure notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/ds3_target_failure_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <Ds3TargetFailureNotificationRegistration>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>
      {32-bit integer}
    </LastHttpStatusCode>
    <LastNotification>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastNotification>
  </Ds3TargetFailureNotificationRegistration>
</Data>
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <NamingConvention>
      CONCAT_LOWERCASE | CONSTANT | UNDERSCORED |
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE |
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST | PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </Ds3TargetFailureNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Ds3TargetFailure Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE

Parameter	Description
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all DS3 target failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/ds3_target_failure_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Ds3TargetFailureNotificationRegistration>
    <CreationDate>2016-06-09T01:14:52.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>a662e451-9db7-4274-8c05-845d2a422988</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
```

```

    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>6698ab0d-2257-47ff-bec1-ec5d1f9f2e61</UserId>
  </Ds3TargetFailureNotificationRegistration>
</Data>

```

GET JOB COMPLETED NOTIFICATION REGISTRATION

Description

Get information about a job completed notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_completed_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Job Completed Notification Registrations](#) on page 942.

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <JobId>{string}</JobId>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>

```

```

<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that completed.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.

Parameter	Description
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the job completed notification registration with the UUID e2ae9bc2-d70e-46d4-9af7-82d971827cb8.

```
GET http://blackpearl-hostname/_rest_/job_completed_notification_
registration/e2ae9bc2-d70e-46d4-9af7-82d971827cb8/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2014-10-16T18:33:58.339Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>e2ae9bc2-d70e-46d4-9af7-82d971827cb8</Id>
  <JobId>14112486-8adc-4015-be56-2261c58f2dab</JobId>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>930460a4-0bfc-46ea-a03c-49da45944c50</UserId>
</Data>
```

GET JOB COMPLETED NOTIFICATION REGISTRATIONS

Description

Get a list of all job completed notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_completed_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification registration.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <JobCompletedNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <JobId>{string}</JobId>
    <LastFailure>{string}</LastFailure>
    <LastHttpResponseCode>
      {32-bit integer}
    </LastHttpResponseCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </JobCompletedNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
JobCompleted Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that completed.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all job completed notification registrations.

```
GET http://blackpearl-hostname/_rest_/job_completed_notification_registration/
HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <JobCompletedNotificationRegistration>
    <CreationDate>2014-10-16T18:33:53.31Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>14362d62-2d3c-490e-b369-34df3dcb474a</Id>
    <JobId>1999523d-df6f-4c22-b8b2-82becc55e0a2</JobId>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>2cc42ec3-fb32-4fcb-a421-437f5fb18531</UserId>
  </JobCompletedNotificationRegistration>
  ...
</Data>
```

GET JOB CREATED NOTIFICATION REGISTRATION

Description

Get information about a job created notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_created_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Job Created Notification Registrations on page 948](#).

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpStatusCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the job created notification registration with the UUID dfe027c8-e3ba-4e8a-a484-66d5577d5040.

```
GET http://blackpearl-hostname/_rest_/job_created_notification_
registration/dfe027c8-e3ba-4e8a-a484-66d5577d5040/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <CreationDate>2014-10-16T18:33:48.334Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>dfe027c8-e3ba-4e8a-a484-66d5577d5040</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>839bb9f6-c5b8-486f-9298-bb05e98f485b</UserId>
</Data>
```

GET JOB CREATED NOTIFICATION REGISTRATIONS

Description

Get a list of all job created notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_created_notification_registration/[?last_
page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_
marker={string}][&user_id={string}]
```


Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```

<Data>
  <JobCreatedNotificationRegistration>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>
      {32-bit integer}
    </LastHttpStatusCode>
    <LastNotification>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
  </JobCreatedNotificationRegistration>
</Data>

```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </JobCreatedNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
JobCreated Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT

Parameter	Description
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all job created notification registrations.

```
GET http://blackpearl-hostname/_rest_/job_created_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <JobCreatedNotificationRegistration>
    <CreationDate>2014-10-16 18:34:02.431</CreationDate>
    <Format>DEFAULT</Format>
    <Id>8ef0579c-7fd9-463b-acde-2c91024d9cbd</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>14d99f82-4bcb-4786-9a7e-eee14b35d665</UserId>
  </JobCreatedNotificationRegistration>
  ...
</Data>
```

GET JOB CREATION FAILED NOTIFICATION REGISTRATION

Description

Get information about a job creation failed notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_creation_failed_notification_registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Job Creation Failed Notification Registrations on page 954](#).

Responses

Response Elements

```
<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the job creation failed notification registration with the UUID d55d6358-8958-4bf8-b954-d1068c29b0e09.

```
GET http://blackpearl-hostname/_rest_/job_creation_failed_notification_
registration/d55d6358-8958-4bf8-b954-d1068c29b0e0/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2016-06-09T01:14:51.000Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>d55d6358-8958-4bf8-b954-d1068c29b0e0</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>2a75b7dc-f492-45f6-a9d8-1b6fcff1bc46</UserId>
</Data>
```

GET JOB CREATION FAILED NOTIFICATION REGISTRATIONS

Description

Get a list of all job creation failed notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/job_creation_failed_notification_registration/[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <JobCreationFailedNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>
      {32-bit integer}
    </LastHttpStatusCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </JobCreationFailedNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
JobCreationFailedNotification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all job creation failed notification registrations.

```
GET http://blackpearl-hostname/_rest_/job_creation_failed_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <JobCreationFailedNotificationRegistration>
    <CreationDate>2016-06-09T01:14:52.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>a662e451-9db7-4274-8c05-845d2a422988</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>6698ab0d-2257-47ff-bec1-ec5d1f9f2e61</UserId>
  </JobCreationFailedNotificationRegistration>
  ...
</Data>
```

GET OBJECT CACHED NOTIFICATION REGISTRATION

Description

Get an object cached notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object_cached_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Object Cached Notification Registrations on page 961](#).

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <JobId>{string}</JobId>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that cached the object.
LastFailure	The exception message for the last failure to send a notification to this notification registration.

Parameter	Description
LastHttpStatusCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the object cached notification registration with the UUID b7ed9175-aeb5-4cee-a696-0c858382453f.

```
GET http://blackpearl-hostname/_rest_/object_cached_notification_
registration/b7ed9175-aeb5-4cee-a696-0c858382453f/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <CreationDate>2014-10-16T18:33:46.093Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>b7ed9175-aeb5-4cee-a696-0c858382453f</Id>
  <JobId>9c053bdc-4a18-4c43-99db-ae61b3c9871a</JobId>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>fd7e3b64-f33a-4cc0-bbc2-87b2c6f3f8af</UserId>
</Data>
```

GET OBJECT CACHED NOTIFICATION REGISTRATIONS

Description

Get a list of all object cached notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object_cached_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification.	no

Responses

Response Elements

```
<Data>
  <S3ObjectCachedNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <JobId>{string}</JobId>
    <LastFailure>{string}</LastFailure>
    <LastHttpResponseCode>
      {32-bit integer}
    </LastHttpResponseCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
  </S3ObjectCachedNotificationRegistration>
</Data>
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <NamingConvention>
      CONCAT_LOWERCASE | CONSTANT | UNDERSCORED |
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE |
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST | PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </S3ObjectCachedNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3ObjectCached Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that cached the object.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.

Parameter	Description
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all object cached notification registrations.

```
GET http://blackpearl-hostname/_rest_/object_cached_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<S3ObjectCachedNotificationRegistration>
  <CreationDate>2014-10-16T18:33:58.753Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>fd5222a4-6eb3-486b-8c2d-64e2eb4fcb75</Id>
  <JobId>f0904baa-27e1-491c-8826-beddf613683f</JobId>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
```



```
<NotificationEndPoint>
  DS3-client-hostname
</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId>44e582df-8e62-4981-8514-7d19650ff0c3</UserId>
</S3ObjectCachedNotificationRegistration>
...
</Data>
```

GET OBJECT LOST NOTIFICATION REGISTRATION

Description

Get information about an object lost notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object_lost_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Object Lost Notification Registrations on page 968](#).

Responses

Response Elements

```
<Data>
  <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
```

```

<NamingConvention>
  CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
  CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT

Parameter	Description
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the object lost notification registration with the UUID aa663b70-878a-4d96-a1ee-6dd5a004e185.

```
GET http://blackpearl-hostname/_rest_/object_lost_notification_
registration/aa663b70-878a-4d96-a1ee-6dd5a004e185/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2014-10-16T18:33:53.945Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>aa663b70-878a-4d96-a1ee-6dd5a004e185</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>400a0552-1743-4dbc-809f-43b27dd2a5bb</UserId>
</Data>
```

GET OBJECT LOST NOTIFICATION REGISTRATIONS

Description

Get a list of all object lost notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object_lost_notification_registration/[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification registration.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <S3ObjectLostNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>
      {32-bit integer}
    </LastHttpStatusCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </S3ObjectLostNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3ObjectLost Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all object lost notification registrations.

```
GET http://blackpearl-hostname/_rest_/object_lost_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <S3ObjectLostNotificationRegistration>
    <CreationDate>2014-10-16T18:34:00.48Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>734afa9f-0af0-476a-80c5-e4cc50358ff5</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>059b0d3d-6ac6-47e9-ab47-bce1d68b5cb6</UserId>
  </S3ObjectLostNotificationRegistration>
  ...
</Data>
```

GET OBJECT PERSISTED NOTIFICATION REGISTRATION

Description

Get information about an object persisted notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/object_persisted_notification_registration/
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Object Persisted Notification Registrations](#) on page 974.

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <JobId>{string}</JobId>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that wrote the object.
LastFailure	The exception message for the last failure to send a notification to this notification registration.

Parameter	Description
LastHttpStatusCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the object persisted notification registration with the UUID 9c94de0f-a8c5-454f-abcb-f3ee47c9d8b1.

```
GET http://blackpearl-hostname/_rest_/object_persisted_notification_registration/9c94de0f-a8c5-454f-abcb-f3ee47c9d8b1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<CreationDate>2014-10-16T18:33:54.381Z</CreationDate>
```

```
<Format>DEFAULT</Format>
```

```
<Id>9c94de0f-a8c5-454f-abcb-f3ee47c9d8b1</Id>
```

```
<JobId>dac25d84-eab6-4595-95ff-6a42950c7e35</JobId>
```

```
<LastFailure/>
```

```
<LastHttpStatusCode/>
```

```
<LastNotification/>
```

```

<NamingConvention>
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
</NamingConvention>
<NotificationEndPoint>
  DS3-client-hostname
</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId>7fe04a75-0fdc-4d73-8f4c-f2a0e01fc859</UserId>
</Data>

```

GET OBJECT PERSISTED NOTIFICATION REGISTRATIONS

Description

Get a list of all object persisted notification registrations.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/object_persisted_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]

```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <S3ObjectPersistedNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <JobId>{string}</JobId>
    <LastFailure>{string}</LastFailure>
    <LastHttpResponseCode>
      {32-bit integer}
    </LastHttpResponseCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </S3ObjectPersistedNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3ObjectPersistedNotification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
JobId	The UUID for the job that wrote the object.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT

Parameter	Description
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all object persisted notification registrations.

```
GET http://blackpearl-hostname/_rest_/object_persisted_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <S3ObjectPersistedNotificationRegistration>
    <CreationDate>2014-10-16T18:33:56.026Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>c91cd5a7-3b5b-442d-a1df-6cd5b021ebac</Id>
    <JobId>49cda2c9-934a-461a-ab76-709bf6c35d44</JobId>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>cf2918f1-100d-4448-91fe-60dfbb1abe10</UserId>
  </S3ObjectPersistedNotificationRegistration>
  ...
</Data>
```

GET POOL FAILURE NOTIFICATION REGISTRATION

Description

Get information about a pool failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool_failure_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Pool Failure Notification Registrations on page 980](#).

Responses

Response Elements

```
<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the pool failure notification registration with the UUID ab151b77-c286-497e-b2e5-034a84a34eb1.

```
GET http://blackpearl-hostname/_rest_/pool_failure_notification_
registration/ab151b77-c286-497e-b2e5-034a84a34eb1/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2015-10-02T15:57:22.343Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>ab151b77-c286-497e-b2e5-034a84a34eb1</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>cef6f4d0-779a-4479-9469-a1373e567b0a</UserId>
</Data>
```

GET POOL FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all pool failure notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/pool_failure_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <PoolFailureNotificationRegistration>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
```

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

<LastNotification>
  { YYYY-MM-DDThh:mm:ss.xxxZ }
</LastNotification>
<NamingConvention>
  CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
  CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</PoolFailureNotificationRegistration>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
PoolFailure Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.

Parameter	Description
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all pool failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/pool_failure_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <PoolFailureNotificationRegistration>
    <CreationDate>2015-10-02T15:57:22.453Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>3a082f87-e720-4d60-839d-d45216647f00</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
```

```

    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>818fc597-a480-4827-99c0-472483abb94a</UserId>
  </PoolFailureNotificationRegistration>
  ...
</Data>

```

GET STORAGE DOMAIN FAILURE NOTIFICATION REGISTRATION

Description

Get information about a storage domain failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/storage_domain_failure_notification_
registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Storage Domain Failure Notification Registrations on page 987](#).

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT | JSON | XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>

```

```

<NamingConvention>
  CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
  CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT

Parameter	Description
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the storage domain failure notification registration with the UUID ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6.

```
GET http://blackpearl-hostname/_rest_/storage_domain_failure_notification_registration/ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2014-10-16T18:33:54.381Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>7fe04a75-0fdc-4d73-8f4c-f2a0e01fc859</UserId>
</Data>
```

GET STORAGE DOMAIN FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all storage domain failure notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/storage_domain_failure_notification_registration/[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <StorageDomainFailureNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpResponseCode>
      {32-bit integer}
    </LastHttpResponseCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </StorageDomainFailureNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
StorageDomain FailureNotification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.

Parameter	Description
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all storage domain failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/storage_domain_failure_notification_registration/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <StorageDomainFailureNotificationRegistration>
    <CreationDate>2014-10-16T18:33:56.026Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>ec3bfb0a-c788-4fbf-a6aa-12c1c70319d6</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>cf2918f1-100d-4448-91fe-60dfbb1abe10</UserId>
  </StorageDomainFailureNotificationRegistration>
  ...
</Data>
```

GET SYSTEM FAILURE NOTIFICATION REGISTRATION

Description

Get information about a system failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/system_failure_notification_registration/
{UUID for the notification}/
```

To determine the UUID for a notification, see [Get System Failure Notification Registrations on page 993](#).

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ }</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ }</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpStatusCode	The last response code returned by the notification end point.

Parameter	Description
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the system failure notification registration with the UUID 4cb5fc45-d2c0-4e8e-a177-bafcf50f7229.

```
GET http://blackpearl-hostname/_rest_/storage_domain_failure_notification_registration/4cb5fc45-d2c0-4e8e-a177-bafcf50f7229/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <CreationDate>2015-12-07T03:20:18.000Z</CreationDate>
```

```
  <Format>DEFAULT</Format>
```

```
  <Id>4cb5fc45-d2c0-4e8e-a177-bafcf50f7229</Id>
```

```
  <LastFailure/>
```

```
  <LastHttpResponseCode/>
```

```
  <LastNotification/>
```

```
  <NamingConvention>
```

```
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
```

```
</NamingConvention>
```

```

<NotificationEndPoint>
  DS3-client-hostname
</NotificationEndPoint>
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId>9ddbe37f-f697-4d7a-a014-8ea36f4dc7da</UserId>
</Data>

```

GET SYSTEM FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all system failure notification registrations.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/system_failure_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]

```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <SystemFailureNotificationRegistration>
    <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>
      {32-bit integer}
    </LastHttpStatusCode>
    <LastNotification>
      { YYYY-MM-DDThh:mm:ss.xxxZ }
    </LastNotification>
    <NamingConvention>
      CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
      CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
    </NamingConvention>
    <NotificationEndPoint>{string}</NotificationEndPoint>
    <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <NumberOfFailuresSinceLastSuccess>
      {32-bit integer}
    </NumberOfFailuresSinceLastSuccess>
    <UserId>{string}</UserId>
  </SystemFailureNotificationRegistration>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
SystemFailure Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.

Parameter	Description
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all system failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/system_failure_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <StorageDomainFailureNotificationRegistration>
    <CreationDate>2015-12-07T03:20:18.000Z</CreationDate>
    <Format>DEFAULT</Format>
    <Id>a046e103-9dbc-46e7-bff4-c070d01714eb</Id>
    <LastFailure/>
    <LastHttpResponseCode/>
    <LastNotification/>
    <NamingConvention>
      CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
    </NamingConvention>
    <NotificationEndPoint>
      DS3-client-hostname
    </NotificationEndPoint>
    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>07c9ae50-3d84-4782-8253-02316b83e89e</UserId>
  </StorageDomainFailureNotificationRegistration>
  ...
</Data>
```


GET TAPE FAILURE NOTIFICATION REGISTRATION

Description

Get information about a tape failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_failure_notification_registration/{UUID
for the notification}/
```

To determine the UUID for a notification, see [Get Tape Failure Notification Registrations on page 999](#).

Responses

Response Elements

```
<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpResponseCode>{32-bit integer}</LastHttpResponseCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>
  <NotificationEndPoint>{string}</NotificationEndPoint>
  <NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    {32-bit integer}
  </NumberOfFailuresSinceLastSuccess>
  <UserId>{string}</UserId>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERSCORED , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the tape failure notification registration with the UUID 70e191f7-9520-4901-89a0-c3808e04f9d5.

```
GET http://blackpearl-hostname/_rest_/tape_failure_notification_
registration/70e191f7-9520-4901-89a0-c3808e04f9d5/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2014-10-16T18:33:54.381Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>70e191f7-9520-4901-89a0-c3808e04f9d5</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>7fe04a75-0fdc-4d73-8f4c-f2a0e01fc859</UserId>
</Data>
```

GET TAPE FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all tape failure notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_failure_notification_registration/
[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <TapeFailureNotificationRegistration>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
```

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

<LastHttpStatusCode>
  {32-bit integer}
</LastHttpStatusCode>
<LastNotification>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastNotification>
<NamingConvention>
  CONCAT_LOWERCASE|CONSTANT|UNDERSCORED|
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
  CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</TapeFailureNotificationRegistration>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
TapeFailure Notification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpStatusCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.

Parameter	Description
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all tape failure notification registrations.

```
GET http://blackpearl-hostname/_rest_/tape_failure_notification_registration/
HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<TapeFailureNotificationRegistration>
  <CreationDate>2014-10-16T18:33:56.026Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>70e191f7-9520-4901-89a0-c3808e04f9d5</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
```

```

    <NotificationHttpMethod>POST</NotificationHttpMethod>
    <NumberOfFailuresSinceLastSuccess>
      0
    </NumberOfFailuresSinceLastSuccess>
    <UserId>cf2918f1-100d-4448-91fe-60dfbb1abe10</UserId>
  </TapeFailureNotificationRegistration>
  ...
</Data>

```

GET TAPE PARTITION FAILURE NOTIFICATION REGISTRATION

Description

Get information about a tape partition failure notification registration.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_partition_failure_notification_
registration/{UUID for the notification}/
```

To determine the UUID for a notification, see [Get Tape Partition Failure Notification Registrations on page 1005](#).

Responses

Response Elements

```

<Data>
  <CreationDate>{ YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
  <Format>DEFAULT|JSON|XML</Format>
  <Id>{string}</Id>
  <LastFailure>{string}</LastFailure>
  <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
  <LastNotification>{ YYYY-MM-DDThh:mm:ss.xxxZ}</LastNotification>
  <NamingConvention>
    CONCAT_LOWERCASE|CONSTANT|UNDERScoreD|
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE|
    CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
  </NamingConvention>

```

```

<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
CreationDate	The date the notification registration was created in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE , CONSTANT , UNDERScoreD , CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE , CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST , PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about the tape partition failure notification registration with the UUID 085586b1-23e2-40bd-93e4-92b236af41e6.

```
GET http://blackpearl-hostname/_rest_/tape_partition_failure_notification_registration/085586b1-23e2-40bd-93e4-92b236af41e6/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <CreationDate>2014-10-16T18:33:54.381Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>085586b1-23e2-40bd-93e4-92b236af41e6</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
  <NotificationHttpMethod>POST</NotificationHttpMethod>
  <NumberOfFailuresSinceLastSuccess>
    0
  </NumberOfFailuresSinceLastSuccess>
  <UserId>7fe04a75-0fdc-4d73-8f4c-f2a0e01fc859</UserId>
</Data>
```

GET TAPE PARTITION FAILURE NOTIFICATION REGISTRATIONS

Description

Get a list of all tape partition failure notification registrations.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/tape_partition_failure_notification_registration/[?last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of registrations to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first registration to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or other unique attribute for the user who created the notification registration.	no

Responses

Response Elements

```
<Data>
  <TapePartitionFailureNotificationRegistration>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <Format>DEFAULT|JSON|XML</Format>
    <Id>{string}</Id>
    <LastFailure>{string}</LastFailure>
    <LastHttpStatusCode>{32-bit integer}</LastHttpStatusCode>
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

<LastNotification>
  { YYYY-MM-DDThh:mm:ss.xxxZ }
</LastNotification>
<NamingConvention>
  CONCAT_LOWER_CASE | CONSTANT | UNDERSCORED |
  CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE |
  CAMEL_CASE_WITH_FIRST_LETTER_LOWER_CASE
</NamingConvention>
<NotificationEndPoint>{string}</NotificationEndPoint>
<NotificationHttpMethod>POST|PUT</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  {32-bit integer}
</NumberOfFailuresSinceLastSuccess>
<UserId>{string}</UserId>
</TapePartitionFailureNotificationRegistration>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
TapePartition FailureNotification Registration	The container for the information for a single notification registration.
CreationDate	The date the notification registration was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Format	The format of the notification. Values: DEFAULT (XML), JSON , XML
ID	The UUID for the notification.
LastFailure	The exception message for the last failure to send a notification to this notification registration.
LastHttpResponseCode	The last response code returned by the notification end point.
LastNotification	Date and time of the last notification attempt by the BlackPearl gateway.

Parameter	Description
NamingConvention	The scheme used for naming within the notification sent. Values: CONCAT_LOWERCASE, CONSTANT, UNDERSCORED, CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE, CAMEL_CASE_WITH_FIRST_LETTER_LOWERCASE
NotificationEnd Point	The HTTP or HTTPS URL of a web server capable of receiving notification messages from the BlackPearl gateway.
NotificationHttp Method	The HTTP request method type. Values: POST, PUT
NumberOfFailuresSinceLastSuccess	Number of failed notification attempts since last successful notification.
UserId	The UUID for the user who created the notification registration.

Example

Sample Request

This request gets information about all tape partition notification registrations.

```
GET http://blackpearl-hostname/_rest_/tape_partition_failure_notification_registration/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<TapeFailureNotificationRegistration>
  <CreationDate>2014-10-16T18:33:56.026Z</CreationDate>
  <Format>DEFAULT</Format>
  <Id>085586b1-23e2-40bd-93e4-92b236af41e6</Id>
  <LastFailure/>
  <LastHttpResponseCode/>
  <LastNotification/>
  <NamingConvention>
    CAMEL_CASE_WITH_FIRST_LETTER_UPPERCASE
  </NamingConvention>
  <NotificationEndPoint>
    DS3-client-hostname
  </NotificationEndPoint>
```

```
<NotificationHttpMethod>POST</NotificationHttpMethod>
<NumberOfFailuresSinceLastSuccess>
  0
</NumberOfFailuresSinceLastSuccess>
<UserId>cf2918f1-100d-4448-91fe-60dfbb1abe10</UserId>
</TapeFailureNotificationRegistration>
...
</Data>
```

VOLUME G - MISCELLANEOUS OPERATIONS

This section describes operations that are available to provide information and make rarely needed changes to the BlackPearl configuration.

- [Cache Operations on page 1011](#)
- [Capacity Operations on page 1027](#)
- [Data Planner Operations on page 1035](#)
- [Degradation Operations on page 1051](#)
- [System Operations on page 1120](#)

CHAPTER 18 - CACHE OPERATIONS

This chapter provides detailed information about operations you can perform on the BlackPearl cache. The cache is used to prepare objects for the most efficient transfer to deep storage and to retrieve objects from storage.

Force Full Cache Reclaim	1011
Get Cache Filesystem	1012
Get Cache Filesystems	1015
Get Cache State	1018
Modify Cache Filesystem	1023

FORCE FULL CACHE RECLAIM

Description

Forces a full reclaim of all caches, and waits until the reclaim completes. Cache contents that need to be retained because they are a part of an active job are retained. Any cache contents that can be reclaimed will be. This operation may take a very long time to complete, depending on how much of the cache can be reclaimed and how many blobs the cache is managing.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/cache_filesystem/?reclaim
```

Request Parameters

Parameter	Description	Required
reclaim	Indicates to perform a reclaim operation.	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)

Example

Sample Request

This request reclaims all cache on the BlackPearl gateway.

```
PUT http[s]://blackpearl-hostname/_rest_/cache_filesystem/?reclaim HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET CACHE FILESYSTEM

Description

Get information about the specified cache filesystem.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/cache_filesystem/{Cache filesystem UUID}/
```

To determine the UUID for a cache filesystem, see [Get Cache Filesystems on page 1015](#).

Responses

Response Elements

```

<Data>
  <AutoReclaimInitiateThreshold>
    { double }
  </AutoReclaimInitiateThreshold>
  <AutoReclaimTerminateThreshold>
    { double }
  </AutoReclaimTerminateThreshold>
  <BurstThreshold>{ double}</BurstThreshold>
  <CacheSafetyEnabled>TRUE|FALSE</CacheSafetyEnabled>
  <Id>{string}</Id>
  <MaxCapacityInBytes>{64-bit integer}</MaxCapacityInBytes>
  <MaxPercentUtilizationOfFilesystem>
    { double }
  </MaxPercentUtilizationOfFilesystem>
  <NodeId>{string}</NodeId>
  <Path>{string}</Path>
</Data>

```

Note: *double*=double-precision floating point number

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AutoReclaim InitiateThreshold	The percentage full at which cache reclamation begins, expressed as a double-precision floating point number.
AutoReclaim Terminate Threshold	The percentage full at which cache reclamation terminates, expressed as a double-precision floating point number.
BurstThreshold	The percent utilization the cache must exceed to disable bursting, which permits the allocation of all cache resources on one job regardless of the job's priority. Having a bust threshold below 1.0 ensures that one job does not prevent resources from being available for other jobs.
CacheSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the system cache before returning that the operation is complete.
Id	The UUID for the cache filesystem.

Parameter	Description
MaxCapacityIn Bytes	The maximum capacity that can be used by the cache. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
MaxPercent UtilizationOf Filesystem	The maximum capacity that can be used by the cache as a percentage of the total usable cache capacity. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
NodeId	The UUID for the for the node associated with the cache.
Path	The path to the cache filesystem on the BlackPearl gateway.

Example

Sample Request

This request gets information about the cache filesystem with UUID 8dfef781-a13c-4ea5-ac22-db4f7425a8c4.

```
GET http://blackpearl-hostname/_rest_/cache_filesystem/8dfef781-a13c-4ea5-ac22-
db4f7425a8c4/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AutoReclaimInitiateThreshold>
    0.82
  </AutoReclaimInitiateThreshold>
  <AutoReclaimTerminateThreshold>
    0.72
  </AutoReclaimTerminateThreshold>
  <BurstThreshold>0.85</BurstThreshold>
  <CacheSafetyEnabled>FALSE</CacheSafetyEnabled>
  <Id>8dfef781-a13c-4ea5-ac22-db4f7425a8c4</Id>
  <MaxCapacityInBytes>524288000</MaxCapacityInBytes>
  <MaxPercentUtilizationOfFilesystem/>
  <NodeId>6f3baf6a-acdc-4626-b930-3062f5b70fb6</NodeId>
```

```

<Path>
  /usr/local/BlackPearl/frontend/cachedir/
</Path>
</Data>

```

GET CACHE FILESYSTEMS

Description

Gets information about all cache filesystems.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/cache_filesystem/[?last_page][&node_id=
{string}][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_
marker={string}]

```

Request Parameters

Parameter	Description	Required
last_page	If included, only the last page of results is returned.	no
node_id 1	The UUID, DNS name, or other unique attribute for the node associated with the cache.	no
page_length	The maximum number of cache filesystems to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first filesystem to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <CacheFilesystem>
    <AutoReclaimInitiateThreshold>
      { double }
    </AutoReclaimInitiateThreshold>
    <AutoReclaimTerminateThreshold>
      { double }
    </AutoReclaimTerminateThreshold>
    <BurstThreshold>{ double}</BurstThreshold>
    <CacheSafetyEnabled>TRUE | FALSE</CacheSafetyEnabled>
    <Id>{ string}</Id>
    <MaxCapacityInBytes>{ 64-bit integer}</MaxCapacityInBytes>
    <MaxPercentUtilizationOfFilesystem>
      { double }
    </MaxPercentUtilizationOfFilesystem>
    <NodeId>{ string}</NodeId>
    <Path>{ string}</Path>
  </CacheFilesystem>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
CacheFilesystem	A container for information about the cache filesystem.
AutoReclaim InitiateThreshold	The percentage full at which cache reclamation begins, expressed as a double-precision floating point number.
AutoReclaim Terminate Threshold	The percentage full at which cache reclamation terminates, expressed as a double-precision floating point number.
BurstThreshold	The percent utilization the cache must exceed to disable bursting, which permits the allocation of all cache resources on one job regardless of the job's priority. Having a bust threshold below 1.0 ensures that one job does not prevent resources from being available for other jobs.

Parameter	Description
CacheSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the system cache before returning that the operation is complete.
Id	The UUID for the cache filesystem.
MaxCapacityIn Bytes	The maximum capacity that can be used by the cache. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
MaxPercent UtilizationOf Filesystem	The maximum capacity that can be used by the cache as a percentage of the total usable cache capacity. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
NodeId	The UUID for the for the node associated with the cache.
Path	The path to the cache filesystem on the BlackPearl gateway.

Example

Sample Request

This request lists all cache filesystems.

```
GET http://blackpearl-hostname/_rest_/cache_filesystem/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <CacheFilesystem>
    <AutoReclaimInitiateThreshold>
      0.82
    </AutoReclaimInitiateThreshold>
    <AutoReclaimTerminateThreshold>
      0.72
    </AutoReclaimTerminateThreshold>
    <BurstThreshold>0.85</BurstThreshold>
    <CacheSafetyEnabled>TRUE|FALSE</CacheSafetyEnabled>
    <Id>93c28334-e6b5-450e-ad7d-0380b706c5f4</Id>
    <MaxCapacityInBytes>524288000</MaxCapacityInBytes>
    <MaxPercentUtilizationOfFilesystem/>
    <NodeId>d1c919d5-70b5-4062-96b6-1000b2b56ee2</NodeId>
    <Path>
      /usr/local/BlackPearl/frontend/cachedir/
    </Path>
  </CacheFilesystem>
  ...
</Data>
```

GET CACHE STATE

Description

Gets the utilization information for all cache filesystems on the BlackPearl gateway.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/cache_state/
```

Responses

Response Elements

```

<Data>
  <Filesystems>
    <AvailableCapacityInBytes>
      {64-bit integer}
    </AvailableCapacityInBytes>
  <CacheFilesystem>
    <AutoReclaimInitiateThreshold>
      {double}
    </AutoReclaimInitiateThreshold>
    <AutoReclaimTerminateThreshold>
      {double}
    </AutoReclaimTerminateThreshold>
    <BurstThreshold>{double}</BurstThreshold>
    <CacheSafetyEnabled>TRUE|FALSE</CacheSafetyEnabled>
    <Id>{string}</Id>
    <MaxCapacityInBytes>{64-bit integer}</MaxCapacityInBytes>
    <MaxPercentUtilizationOfFilesystem>
      {double}
    </MaxPercentUtilizationOfFilesystem>
    <NodeId>{string}</NodeId>
    <Path>{string}</Path>
  </CacheFilesystem>
  <Entries>
    <Blob>
      <ByteOffset>32-bit integer</ByteOffset>
      <Checksum>{string}</Checksum>
      <ChecksumType>CRC|CRC_32C|MD5|SHA_256|SHA_512</ChecksumType>
      <Id>{string}</Id>
      <Length>32-bit integer</Length>
      <ObjectId>{string}</ObjectId>
    </Blob>
    <State>IN_CACHE</State>
  </Entries>

```

```

    <JobLockedCacheInBytes>
      {64-bit integer}
    </JobLockedCacheInBytes>
    <Summary>{string}</Summary>
    <TotalCapacityInBytes>
      {64-bit integer}
    </TotalCapacityInBytes>
    <UnavailableCapacityInBytes>
      {64-bit integer}
    </UnavailableCapacityInBytes>
    <UsedCapacityInBytes>{64-bit integer}</UsedCapacityInBytes>
  </Filesystems>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
FileSystem	A container for information about filesystems.
AvailableCapacityInBytes	The capacity available for cache filesystems.
CacheFilesystem	A container for information about the cache filesystem.
AutoReclaimInitiateThreshold	The percentage full at which cache reclamation begins, expressed as a double-precision floating point number.
AutoReclaimTerminateThreshold	The percentage full at which cache reclamation terminates, expressed as a double-precision floating point number.
BurstThreshold	The percent utilization the cache must exceed to disable bursting, which permits the allocation of all cache resources on one job regardless of the job's priority. Having a burst threshold below 1.0 ensures that one job does not prevent resources from being available for other jobs.
CacheSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the system cache before returning that the operation is complete.
Id	The UUID for the cache filesystem.
MaxCapacityIn Bytes	The maximum capacity that can be used by the cache. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.

Parameter	Description
MaxPercentUtilizationOfFilesystem	The maximum capacity that can be used by the cache as a percentage of the total usable cache capacity. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
NodeId	The UUID for the for the node associated with the cache.
Path	The path to the cache filesystem on the BlackPearl gateway.
Entries	A container for information about blobs currently in cache.
Blob	A container for information about one blob.
ByteOffset	The offset in bytes where this blob starts compared to the start of the object.
Checksum	The checksum value for the blob.
ChecksumType	The type of checksum calculated. Values: <code>CRC CRC_32C MD5 SHA_256 SHA_512</code>
Id	The UUID for the blob.
Length	The length in bytes of the object.
ObjectId	The UUID for the object associated with the blob.
State	The state of the object with respect to the cache.
JobLockedCacheInBytes	The amount of cache currently being used by jobs.
Summary	A textual summary intended for human and not programmatic use.
TotalCapacityIn Bytes	The total capacity across all cache filesystems.
UnavailableCapacityInBytes	Capacity that has been released from the cache but is not yet deleted and made available on the underlying physical filesystem.
UsedCapacityIn Bytes	The total capacity used across all cache filesystems.

Example

Sample Request

This request gets the state information for all cache filesystems.

```
GET http[s]://blackpearl-hostname/_rest_/cache_state/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <Filesystems>
```

```
    <AvailableCapacityInBytes>54321</AvailableCapacityInBytes>
```

```
      <CacheFilesystem>
```

```
        <AutoReclaimInitiateThreshold>
```

```
          0.82
```

```
        </AutoReclaimInitiateThreshold>
```

```
        <AutoReclaimTerminateThreshold>
```

```
          0.72
```

```
        </AutoReclaimTerminateThreshold>
```

```
        <BurstThreshold>0.85</BurstThreshold>
```

```
        <CacheSafetyEnabled>FALSE</CacheSafetyEnabled>
```

```
        <Id>4322504e-556b-11e4-b466-080027200702</Id>
```

```
        <MaxCapacityInBytes>12345</MaxCapacityInBytes>
```

```
        <MaxPercentUtilizationOfFilesystem>
```

```
          0.8
```

```
        </MaxPercentUtilizationOfFilesystem>
```

```
        <NodeId>b9fd225a-ead8-41c7-b65b-71802c10d05a</NodeId>
```

```
        <Path>
```

```
          /usr/local/BlackPearl/frontend/cachedir/
```

```
        </Path>
```

```
      </CacheFilesystem>
```

```

<Entries>
  <Blob>
    <ByteOffset>10</ByteOffset>
    <Checksum>
      a8a2f6ebe286697c527eb35a58b5539532e9b3ae3b64d4eb0a46fb657b41562c
    </Checksum>
    <ChecksumType>SHA_256</ChecksumType>
    <Id>438fc336-556b-11e4-8dc0-080027200702</Id>
    <Length>123</Length>
    <ObjectId>440622ba-556b-11e4-896c-080027200702</ObjectId>
  </Blob>
  <State>IN_CACHE</State>
</Entries>
<JobLockedCacheInBytes>1234</JobLockedCacheInBytes>
<Summary>summary message</Summary>
<TotalCapacityInBytes>6789</TotalCapacityInBytes>
<UnavailableCapacityInBytes>
  4321
</UnavailableCapacityInBytes>
<UsedCapacityInBytes>3456</UsedCapacityInBytes>
</Filesystems>
</Data>

```

MODIFY CACHE FILESYSTEM

Description

Modify the auto reclaim initiate threshold, auto reclaim terminate threshold, burst threshold, or maximum capacity for the specified cache filesystem.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```

PUT http[s]://{datapathDNSname}/_rest_/cache_filesystem/{cache_filesystem UUID}/
[?auto_reclaim_initiate_threshold={double}][&auto_reclaim_terminate_threshold=
{double}][&burst_threshold={double}][&cachesafetynabled=TRUE|FALSE][&max_capacity_
in_bytes={64-bit integer}]

```

To determine the UUID for a cache filesystem, see [Get Cache Filesystems on page 1015](#).

Request Parameters

Parameter	Description	Required
AutoReclaimInitiateThreshold	The percentage full at which cache reclamation begins, expressed as a double-precision floating point number. Note: <code>AutoReclaimInitiateThreshold</code> must be equal or larger than <code>AutoReclaimTerminateThreshold</code> .	no
AutoReclaimTerminateThreshold	The percentage full at which cache reclamation terminates, expressed as a double-precision floating point number. Note: <code>AutoReclaimInitiateThreshold</code> must be equal or larger than <code>AutoReclaimTerminateThreshold</code> .	no
BurstThreshold	The percent utilization the cache must exceed to disable bursting, which permits the allocation of all cache resources on one job regardless of the job's priority. Having a bust threshold below 1.0 ensures that one job does not prevent resources from being available for other jobs.	no
CacheSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the system cache before returning that the operation is complete. Values: TRUE , FALSE (default)	no
MaxCapacityIn Bytes	The maximum capacity that can be used by the cache.	no

Responses

Response Elements

```

<Data>
  <AutoReclaimInitiateThreshold>
    { double }
  </AutoReclaimInitiateThreshold>
  <AutoReclaimTerminateThreshold>
    { double }
  </AutoReclaimTerminateThreshold>
  <BurstThreshold>{ double}</BurstThreshold>
  <CacheSafetyEnabled>TRUE | FALSE</CacheSafetyEnabled>
  <Id>{ string}</Id>
  <MaxCapacityInBytes>{ 64-bit integer}</MaxCapacityInBytes>

```

```

<MaxPercentUtilizationOfFilesystem>
  {double}
</MaxPercentUtilizationOfFilesystem>
<NodeId>{string}</NodeId>
<Path>{string}</Path>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
AutoReclaim InitiateThreshold	The percentage full at which cache reclamation begins, expressed as a double-precision floating point number.
AutoReclaim Terminate Threshold	The percentage full at which cache reclamation terminates, expressed as a double-precision floating point number.
BurstThreshold	The percent utilization the cache must exceed to disable bursting, which permits the allocation of all cache resources on one job regardless of the job's priority. Having a bust threshold below 1.0 ensures that one job does not prevent resources from being available for other jobs.
CacheSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the system cache before returning that the operation is complete.
Id	The UUID for the cache filesystem.
MaxCapacityIn Bytes	The maximum capacity that can be used by the cache. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
MaxPercent UtilizationOf Filesystem	The maximum capacity that can be used by the cache as a percentage of the total usable cache capacity. Note: If both <code>MaxCapacityInBytes</code> and <code>MaxPercentUtilizationOfFilesystem</code> are specified, the lesser of the two is used for the maximum cache capacity.
NodeId	The UUID for the for the node associated with the cache.
Path	The path to the cache filesystem on the BlackPearl gateway.

Example

Sample Request

This request changes the auto reclaim initiate threshold for the cache filesystem with UUID f2e97b09-75c0-47f6-8118-e96677f30869 to .90.

```
PUT http[s]://blackpearl-hostname/_rest_/cache_filesystem/f2e97b09-75c0-47f6-8118-e96677f30869/?auto_reclaim_initiate_threshold=.90 HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <AutoReclaimInitiateThreshold>
```

```
    0.90
```

```
  </AutoReclaimInitiateThreshold>
```

```
  <AutoReclaimTerminateThreshold>
```

```
    0.72
```

```
  </AutoReclaimTerminateThreshold>
```

```
  <BurstThreshold>1.01</BurstThreshold>
```

```
  <CacheSafetyEnabled>{TRUE|FALSE}</CacheSafetyEnabled>
```

```
  <Id>f2e97b09-75c0-47f6-8118-e96677f30869</Id>
```

```
  <MaxCapacityInBytes/>
```

```
  <MaxPercentUtilizationOfFilesystem/>
```

```
  <NodeId>9a50d885-00d0-468c-a7a6-bdc54060923a</NodeId>
```

```
  <Path>
```

```
    /usr/local/BlackPearl/frontend/cachedir/
```

```
  </Path>
```

```
</Data>
```

CHAPTER 19 - CAPACITY OPERATIONS

This chapter provides detailed descriptions for capacity information operations.

Get Bucket Capacity Summary	1027
Get Storage Domain Capacity Summary	1029
Get System Capacity Summary	1032

GET BUCKET CAPACITY SUMMARY

Description

Get the capacity summary for the specified bucket on the specified storage domain. Use parameters as selection criteria to return capacity information for a portion of the bucket.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/capacity_summary/?bucket_id={string}&storage_
domain_id={string} [&pool_health=OK|DEGRADED] [&pool_
state=BLANK|NORMAL|LOST|FOREIGN|IMPORT_PENDING|IMPORT_IN_PROGRESS] [&pool_
type=NEARLINE|ONLINE] [&tape_state=NORMAL|BAD|BAR_CODE_MISSING|DATA_CHECKPOINT_
MISSING|EJECT_FROM_EE_PENDING|EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_
PROGRESS|FORMAT_PENDING|IMPORT_IN_PROGRESS|INCOMPATIBLE|PENDING_
INSPECTION|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|ONLINE_IN_PROGRESS|ONLINE_
PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN] [&tape_
type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|TS_JE|TS_JK|TS_
JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN]
```

Request Parameters

Parameter	Description	Required
bucket_id	The UUID, name, or other unique identifier for the bucket.	yes
storage_ domain_id	The UUID for the storage domain assigned to the bucket.	yes

Parameter	Description	Required
pool_health	The current health of the pool. Values: OK , DEGRADED .	no
pool_type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	no
pool_state	The status of the pool. See State on page 600 .	no
tape_state	The status of the tape partition. See State on page 664 .	no
tape_type	The tape format and generation of the tape cartridge. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , LTO_CLEANING_TAPE , TS_JC , TS_JD , TS_JE , TS_JK , TS_JL , TS_JM , TS_JV , TS_JY , TS_JZ , TS_CLEANING_TAPE , UNKNOWN , FORBIDDEN	no

Responses

Response Elements

```
<Data>
  <Pool>
    <PhysicalAllocated>{64-bit integer}</PhysicalAllocated>
    <PhysicalFree>{64-bit integer}</PhysicalFree>
    <PhysicalUsed>{64-bit integer}</PhysicalUsed>
  </Pool>
  <Tape>
    <PhysicalAllocated>{64-bit integer}</PhysicalAllocated>
    <PhysicalFree>{64-bit integer}</PhysicalFree>
    <PhysicalUsed>{64-bit integer}</PhysicalUsed>
  </Tape>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Pool	The container for capacity information for a pool in the storage domain.
PhysicalAllocated	The physical capacity currently allocated, in bytes.
PhysicalFree	The physical capacity currently allocated, AND free (not used).

Parameter	Description
PhysicalUsed	The physical capacity currently used, in bytes. Note: The physical used + physical free = physical allocated.
Tape	The container for capacity information for tape partitions in the storage domain.

Example

Sample Request

This request gets the capacity summary for the bucket named “bucket1” on the storage domain named “LTO-5Tape”.

```
GET http://blackpearl-hostname/_rest_/capacity_summary/?bucket_id=bucket1&storage_domain_id=LTO-5Tape HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Pool>
    <PhysicalAllocated>0</PhysicalAllocated>
    <PhysicalFree>0</PhysicalFree>
    <PhysicalUsed>0</PhysicalUsed>
  </Pool>
  <Tape>
    <PhysicalAllocated>800</PhysicalAllocated>
    <PhysicalFree>200</PhysicalFree>
    <PhysicalUsed>600</PhysicalUsed>
  </Tape>
</Data>
```

GET STORAGE DOMAIN CAPACITY SUMMARY

Description

Get the capacity summary for the specified storage domain. Use parameters as selection criteria to return capacity information for a portion of the storage domain.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/capacity_summary/?storage_domain_id={string}
[&pool_health=OK|DEGRADED] [&pool_state=BLANK|NORMAL|LOST|FOREIGN|IMPORT_
PENDING|IMPORT_IN_PROGRESS] [&pool_type=NEARLINE|ONLINE] [&tape_state=NORMAL|BAD|BAR_
CODE_MISSING|DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|EJECT_TO_EE_IN_
PROGRESS|EJECTED|FOREIGN|FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
PROGRESS|INCOMPATIBLE|PENDING_INSPECTION|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|ONLINE_
IN_PROGRESS|ONLINE_PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN] [&tape_
type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|TS_JE|TS_JK|TS_
JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN]
```

Request Parameters

Parameter	Description	Required
storage_domain_id	The UUID for the storage domain assigned to the bucket.	yes
pool_health	The current health of the pool. Values: OK , DEGRADED .	no
pool_type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	no
pool_state	The status of the pool. See State on page 600 .	no
tape_state	The status of the tape partition. See State on page 664 .	no
tape_type	The tape format and generation of the tape cartridge. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , LTO_CLEANING_TAPE , TS_JC , TS_JD , TS_JE , TS_JK , TS_JL , TS_JM , TS_JV , TS_JY , TS_JZ , TS_CLEANING_TAPE , UNKNOWN , FORBIDDEN	no

Responses

Response Elements

```

<Data>
  <Pool>
    <PhysicalAllocated>{64-bit integer}</PhysicalAllocated>
    <PhysicalFree>{64-bit integer}</PhysicalFree>
    <PhysicalUsed>{64-bit integer}</PhysicalUsed>
  </Pool>
  <Tape>
    <PhysicalAllocated>{64-bit integer}</PhysicalAllocated>
    <PhysicalFree>{64-bit integer}</PhysicalFree>
    <PhysicalUsed>{64-bit integer}</PhysicalUsed>
  </Tape>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Pool	The container for capacity information for all pools in the storage domain.
PhysicalAllocated	The physical capacity currently allocated, in bytes.
PhysicalFree	The physical capacity currently free (not used or allocated), in bytes.
PhysicalUsed	The physical capacity currently used, in bytes.
Tape	The container for capacity information for all tape partitions in the storage domain.

Example

Sample Request

This request gets the capacity summary for the storage domain named “accounting”.

```

GET http://blackpearl-hostname/_rest_/capacity_summary/?storage_domain_id=accounting
HTTP/1.1

```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <Pool>
    <PhysicalAllocated>1500</PhysicalAllocated>
    <PhysicalFree>1000</PhysicalFree>
    <PhysicalUsed>500</PhysicalUsed>
  </Pool>
  <Tape>
    <PhysicalAllocated>1501</PhysicalAllocated>
    <PhysicalFree>1000</PhysicalFree>
    <PhysicalUsed>501</PhysicalUsed>
  </Tape>
</Data>
```

GET SYSTEM CAPACITY SUMMARY

Description

Get the Spectra BlackPearl Nearline Gateway system-wide capacity summary. Use parameters as selection criteria to return capacity information for a portion of the system.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/capacity_summary/[?pool_health=OK|DEGRADED]
[&pool_state=BLANK|NORMAL|LOST|FOREIGN|IMPORT_PENDING|IMPORT_IN_PROGRESS][&pool_
type=NEARLINE|ONLINE][&tape_state=NORMAL|BAD|BAR_CODE_MISSING|DATA_CHECKPOINT_
MISSING|EJECT_FROM_EE_PENDING|EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|FORMAT_IN_
PROGRESS|FORMAT_PENDING|IMPORT_IN_PROGRESS|INCOMPATIBLE|PENDING_
INSPECTION|LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|ONLINE_IN_PROGRESS|ONLINE_
PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN][&tape_
type=LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|TS_JC|TS_JD|TS_JE|TS_JK|TS_
JL|TS_JM|TS_JV|TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN]
```

Request Parameters

Parameter	Description	Required
pool_health	The current health of the pool. Values: OK , DEGRADED .	no
pool_type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)	no
pool_state	The status of the pool. See State on page 600 .	no
tape_state	The status of the tape partition. See State on page 664 .	no
tape_type	The tape format and generation of the tape cartridge. Values: LTO5 , LTO6 , LTO7 , LTO8 , LTOM8 , LTO9 , LTO_CLEANING_TAPE , TS_JC , TS_JD , TS_JE , TS_JK , TS_JL , TS_JM , TS_JV , TS_JY , TS_JZ , TS_CLEANING_TAPE , UNKNOWN , FORBIDDEN	no

Responses

Response Elements

```

<Data>
  <Pool>
    <PhysicalAllocated>{64-bit integer}</PhysicalAllocated>
    <PhysicalAvailable>{64-bit integer}</PhysicalAvailable>
    <PhysicalFree>{64-bit integer}</PhysicalFree>
    <PhysicalUsed>{64-bit integer}</PhysicalUsed>
  </Pool>
  <Tape>
    <PhysicalAllocated>{64-bit integer}</PhysicalAllocated>
    <PhysicalAvailable>{64-bit integer}</PhysicalAvailable>
    <PhysicalFree>{64-bit integer}</PhysicalFree>
    <PhysicalUsed>{64-bit integer}</PhysicalUsed>
  </Tape>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Pool	The container for capacity information across all pools.

Parameter	Description
PhysicalAllocated	The physical capacity currently allocated, in bytes.
PhysicalAvailable	The physical capacity not allocated, in bytes. (physical allocated + physical available = total physical capacity)
PhysicalFree	The physical capacity currently free (not used or allocated), in bytes.
PhysicalUsed	The physical capacity currently used, in bytes.
Tape	The container for capacity information for all tape partitions.

Example

Sample Request

This request gets the capacity summary for the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/capacity_summary/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Pool>
    <PhysicalAllocated>0</PhysicalAllocated>
    <PhysicalAvailable>0</PhysicalAvailable>
    <PhysicalFree>0</PhysicalFree>
    <PhysicalUsed>0</PhysicalUsed>
  </Pool>
  <Tape>
    <PhysicalAllocated>3000</PhysicalAllocated>
    <PhysicalAvailable>15000</PhysicalAvailable>
    <PhysicalFree>2000</PhysicalFree>
    <PhysicalUsed>1000</PhysicalUsed>
  </Tape>
</Data>
```

CHAPTER 20 - DATA PLANNER OPERATIONS

This chapter provides detailed descriptions for operation to get the status of and modify the performance of the data planner.

Get Data Path Backend	1035
Get Data Planner Blob Store Tasks	1040
Modify Data Path Backend	1043

GET DATA PATH BACKEND

Description

Get information about the data path backend.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/data_path_backend/
```

Responses

Response Elements

```
<Data>  
  <Activated>TRUE|FALSE</Activated>  
  <AllowNewJobRequests>TRUE|FALSE</AllowNewJobRequests>  
  <AutoActivateTimeoutInMins>  
    {32-bit integer}  
  </AutoActivateTimeoutInMins>  
  <AutoInspect>DEFAULT|MINIMAL|NEVER</AutoInspect>  
  <CacheAvailableRetryAfterInSeconds>  
    {32-bit integer}  
  </CacheAvailableRetryAfterInSeconds>  
  <DefaultVerifyDataAfterImport>  
    URGENT|HIGH|NORMAL|LOW  
  </DefaultVerifyDataAfterImport>
```

```

<DefaultVerifyDataPriorToImport>
  TRUE | FALSE
</DefaultVerifyDataPriorToImport>
<Id>{string}</Id>
<InstanceId>{string}</InstanceId>
<IomCacheLimitationPercent>{double}</IomCacheLimitationPercent>
<IomEnabled>TRUE | FALSE</IomEnabled>
<LastHeartbeat>YYYY-MM-DDThh:mm:ss.xxxZ</LastHeartbeat>
<MaxAggregatedBlobsPerChunk>
  {32-bit integer}
</MaxAggregatedBlobsPerChunk>
<LastHeartbeat>YYYY-MM-DDThh:mm:ss.xxxZ</LastHeartbeat>
<PartiallyVerifyLastPercentOfTape>
  {32-bit integer}
</PartiallyVerifyLastPercentOfTape>
<PoolSafetyEnabled>TRUE | FALSE</PoolSafetyEnabled>
<UnavailableMediaPolicy>
  ALLOW | DISCOURAGED | DISALLOW
</UnavailableMediaPolicy>
<UnavailablePoolMaxJobRetryInMins>
  {32-bit integer}
</UnavailablePoolMaxJobRetryInMins>
<UnavailableTapePartitionMaxJobRetryInMins>
  {32-bit integer}
</UnavailableTapePartitionMaxJobRetryInMins>
<VerifyCheckpointBeforeRead>TRUE | FALSE</VerifyCheckpointBeforeRead>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Activated	Whether the BlackPearl gateway is allowed to send to the data path backend (pool or tape partitions). Values: TRUE , FALSE
AllowNewJob Requests	Whether the BlackPearl gateway allows new jobs to be initiated. Values: TRUE , FALSE

Parameter	Description
AutoActivate TimeoutInMins	The number of minutes allowed for the data planner to take between when it is shut down and when it comes back up, and have the data path back end automatically activate. If the data planner remains shutdown for longer than this number of minutes, the data path backend will not automatically activate. If this parameter is null, the data path backend will never automatically activate.
AutoInspect	Whether tape inspections are automatically scheduled whenever the data planner starts. Values: DEFAULT, MINIMAL, NEVER See auto_inspect on page 1044.
CacheAvailable RetryAfterIn Seconds	The recommended number of seconds for clients to wait between sending Get Job Chunks Ready for Processing (see page 222) requests.
DefaultVerifyDataAfterImport	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW
DefaultVerifyData PriorToImport	Whether the data must be verified before the tape is imported. Values: TRUE, FALSE Note: It is recommended to verify data prior to import whenever it is possible that the tapes being imported contain objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.
Id	The UUID for the record. This is only useful to the BlackPearl gateway.
InstanceID	The UUID for the BlackPearl gateway session.
IomCacheLimitationPercent	The percentage of the cache, represented as a decimal, that can be used for IOM tasks.
IomEnabled	Whether Intelligent Object Management (IOM) is enabled.
LastHeartbeat	The date and time that the gateway last sent a heartbeat in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
MaxAggregatedBlobsPerChunk	The maximum number of blobs that can be aggregated into a single tape task.
PartiallyVerifyLastPercentOfTapes	The percentage of the overall tape capacity before the EOD marker that the BlackPearl gateway verifies during data integrity verification. Verifying a percentage of the tape, rather than the entire tape is useful when you only want to verify the most recent data written to the tape. Values: 1-99 Note: To verify the entire tape, see Verify Tape on page 831 .
PoolSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the storage pool before returning that the operation is complete. Values: TRUE (default), FALSE
UnavailableMedia Policy	Whether new job requests are allowed to use partitions that are currently unavailable. Values: ALLOW , DISCOURAGE , DISALLOW See unavailable_media_policy on page 1045 .
UnavailablePool MaxJobRetryIn Mins	How long job requests using unavailable pools will retry before being re-chunked or failing if re-chunking cannot solve the problem.
UnavailableTape PartitionMaxJob RetryInMins	How long job requests using unavailable tape partitions will retry before being re-chunked or failing if re-chunking cannot solve the problem.
VerifyCheckpointBeforeRead	When a tape cartridge is loaded into a drive, this parameter controls whether the BlackPearl system verifies the starting checkpoint of the tape before reading data. Values: TRUE (default), FALSE

Example

Sample Request

This request gets information about the data path backend.

```
GET http://blackpearl-hostname/_rest_/data_path_backend/ HTTP/1.1
```

Sample Response

HTTP/1.1 200 OK

```
<Data>
  <Activated>TRUE</Activated>
  <AllowNewJobRequests>TRUE</AllowNewJobRequests>
  <AutoActivateTimeoutInMins>30</AutoActivateTimeoutInMins>
  <AutoInspect>DEFAULT</AutoInspect>
  <CacheAvailableRetryAfterInSeconds>
    300
  </CacheAvailableRetryAfterInSeconds>
  <DefaultVerifyDataAfterImport/>
  <DefaultVerifyDataPriorToImport>
    TRUE
  </DefaultVerifyDataPriorToImport>
  <Id>7d7601d0-4dba-47a4-8235-8a1ceefe91fa</Id>
  <InstanceId>51db3e63-f63a-4503-8d48-6b8b52d6eb98</InstanceId>
  <IomCacheLimitationPercent>.5</IomCacheLimitationPercent>
  <IomEnabled>TRUE</IomEnabled>
  <LastHeartbeat>2016-01-21T18:53:55.000Z</LastHeartbeat>
  <MaxAggregatedBlobsPerChunk>
    20000
  </MaxAggregatedBlobsPerChunk>
  <PartiallyVerifyLastPercentOfTape>
    15
  </PartiallyVerifyLastPercentOfTape>
  <PoolSafetyEnabled>TRUE</PoolSafetyEnabled>
  <UnavailableMediaPolicy>DISCOURAGED</UnavailableMediaPolicy>
  <UnavailablePoolMaxJobRetryInMins>
    20
  </UnavailablePoolMaxJobRetryInMins>
  <UnavailableTapePartitionMaxJobRetryInMins>
    20
  </UnavailableTapePartitionMaxJobRetryInMins>
  <VerifyCheckpointBeforeRead>FALSE</VerifyCheckpointBeforeRead>
</Data>
```

GET DATA PLANNER BLOB STORE TASKS

Description

Get the actively in progress tasks the BlackPearl gateway is processing in the backend. If the full details flag is specified, this also includes all queued work in the backend.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/blob_store_task/[?full_details]
```

Request Parameters

Parameter	Description	Required
full_details	If included, all tasks are reported, without it, only tasks that are pending execution or are currently executing are reported.	no

Responses

Response Elements

```
<Data>
  <Tasks>
    <DateScheduled>{YYYY-MM-DDThh:mm:ss.xxxZ}</DateScheduled>
    <DateStarted>{YYYY-MM-DDThh:mm:ss.xxxZ}</DateStarted>
    <Description>{string}</Description>
    <Id>{64-bit integer}</Id>
    <Name>{string}</Name>
    <Priority>
      CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
    </Priority>
```

```

    <State>
      COMPLETED|IN_PROGRESS|NOT_READY|PENDING_EXECUTION|READY
    </State>
    <PoolId>{string}</PoolId>
    <TapeId>{string}</TapeId>
  </Tasks>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Tasks	The container for information about one task.
DateScheduled	The date and time the task was scheduled by the data planner in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DateStarted	The date and time the task execution started in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Description	A description of the task.
Id	The ID for the task. This is only useful to the BlackPearl gateway.
Name	The name of the task.
Priority	The task priority. This determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
State	The state of the task. Values: <ul style="list-style-type: none"> • COMPLETED — The task is complete and its resources may be released and re-used for another task. • IN_PROGRESS — The task is being executed. • NOT_READY — The task is temporarily suspended (likely due to too many failures in a row) or otherwise not ready and cannot be executed at this time. • PENDING_EXECUTION — The task is scheduled for immediate execution, with all required resources locked and provisioned, so that execution may begin imminently. • READY — The task is ready for execution once all required resources are available.

Parameter	Description
PoolId	The UUID for the pool acted on by the task, if applicable.
TapeId	The UUID for the tape acted on by the task, if applicable.

Example

Sample Request

This request gets information about all data planner blob store tasks.

```
GET http://blackpearl-hostname/_rest_/blob_store_task/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Tasks>
    <DateScheduled>2015-11-23T16:29:51.000Z</DateScheduled>
    <DateStarted>2015-11-23T17:12:15.000Z</DateStarted>
    <Description>
      Inspect Tape 3b682d17-3f7b-4f69-9f13-7dd2b7577c7c
    </Description>
    <DriveId>31269ab2-2bca-45c3-b9dd-e13b55cfae86</DriveId>
    <Id>41</Id>
    <Name>InspectTapeTask</Name>
    <Priority>LOW</Priority>
    <State>IN_PROGRESS</State>
    <TapeId>3b682d17-3f7b-4f69-9f13-7dd2b7577c7c</TapeId>
  </Tasks>
</Data>
```

MODIFY DATA PATH BACKEND

Description

Activate the data path or configure automatic data path activation. Setting the auto activation timeout to null disables auto activation. If a tape partition is connected to more than one BlackPearl gateway, for example, for failover purposes, it is critical that at most one gateway attached to the same tape partition, is active at a time. Otherwise, multiple BlackPearl gateways may issue conflicting requests to robots and tape drives. This can cause data corruption or data loss. If your configuration has only one BlackPearl gateway, it is safe to increase the auto activate timeout. If your configuration has multiple BlackPearl gateways attached to the same tape partition, consider modifying the auto activate timeout to null in order to guarantee that both gateways cannot be auto-activated at the same time.



CAUTION

Having two BlackPearl gateways connected to the same tape partition, active at the same time can cause database corruption or data loss.

Note: If an optional request parameter is not included, the previous setting is retained.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/data_path_backend/[?activated=TRUE|FALSE]
[&allow_new_job_requests=TRUE|FALSE][&auto_activate_timeout_in_mins=
{32-bit integer}][&auto_inspect=NEVER|MINIMAL|DEFAULT][&cache_available_retry_after_
in_seconds={32-bit integer}][&default_verify_data_after_
import=CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND][&default_verify_data_prior_to_
import=TRUE|FALSE][&iom_cache_limitation_percent={double}][&iom_enabled][&max_
aggregated_blobs_per_chunk={32-bit integer}][&partially_verify_last_percent_of_
tapes={32-bit integer}][&pool_safety_enabled=TRUE|FALSE][&unavailable_media_
policy=ALLOW|DISCOURAGED|DISALLOW][&unavailable_pool_max_job_retry_in_mins=
{32-bit integer}][&unavailable_tape_partition_max_job_retry_in_mins=
{32-bit integer}][&verify_checkpoint_before_read=TRUE|FALSE]
```

Request Parameters

Parameter	Description	Required
activated	Whether the BlackPearl gateway is allowed to send data to the data path backend (pool or tape partitions). Values: TRUE, FALSE	no
allow_new_job_requests	Whether the BlackPearl gateway allows new jobs to be initiated. Values: TRUE, FALSE	no
auto_activate_timeout_in_mins	The number of minutes allowed for the data planner to take between when it is shut down and when it comes back up, and have the data path back end automatically activate. If the data planner remains shutdown for longer than this number of minutes, the data path backend will not automatically activate. If this parameter is null, the data path backend will never automatically activate. Default: 30 minutes	no
auto_inspect	Whether tape inspections are automatically scheduled whenever the data planner starts. Values: <ul style="list-style-type: none"> • DEFAULT – Tapes have inspections scheduled for them if an inspection is necessary given the tape's current state, as well as every time the data path starts up. • MINIMAL – Tapes have inspections scheduled for them if an inspection is necessary given the tape's current state. • NEVER – Tapes are not automatically scheduled for inspection. 	no
cache_available_retry_after_in_seconds	Set the recommended number of seconds for clients to wait between sending Get Job Chunks Ready for Processing (see page 222) requests. The default is 300.	no
default_verify_data_after_import	The priority for verifying the data after import. This determines the resources assigned and the processing order. Tasks with priority URGENT can use up all of the resources and prevent other jobs from making progress. Use this priority sparingly. Values: URGENT, HIGH, NORMAL, LOW	no

Parameter	Description	Required
default_verify_data_prior_to_import	Whether the data must be verified before the media is imported. Values: TRUE , FALSE Note: It is recommended to verify data prior to import whenever it is possible that the media being imported contain objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.	no
iom_cache_limitation_percent	The percentage of the cache, represented as a decimal, that can be used for IOM tasks. The default is 0.5 (50%).	no
iom_enabled	When included, Intelligent Object Management (IOM) is enabled. When enabled, the gateway attempts to repair any objects or tapes that are faulty if other copies of the objects exist.	no
max_aggregated_blobs_per_chunk	The maximum number of blobs that can be aggregated into a single tape task. The default is 20000.	no
partially_verify_last_percent_of_tapes	The percentage of the overall tape capacity before the EOD marker that the BlackPearl gateway verifies during data integrity verification. Verifying a percentage of the tape, rather than the entire tape is useful when you only want to verify the most recent data written to the tape. Values: 1-99 Note: To verify the entire tape, see Verify Tape on page 831 .	no
pool_safety_enabled	Whether the BlackPearl system waits for all data to be transferred the storage pool before returning that the operation is complete. Values: TRUE (default), FALSE	no
unavailable_media_policy	Whether new job requests are allowed to use media that are currently unavailable. Values: <ul style="list-style-type: none"> • ALLOW — New job requests for unavailable media are allowed and will retry for the duration of the unavailable_pool_max_job_retry_in_mins or unavailable_tape_partition_max_job_retry_in_mins. • DISCOURAGE (default) — Unavailable partitions can be used, but only if no other media is available. • DISALLOW — New job requests for unavailable media will fail. 	no

Parameter	Description	Required
unavailable_pool_max_job_retry_in_mins	How long job requests using unavailable pools will retry before being re-chunked or failing if re-chunking cannot solve the problem. Default: 20 minutes	no
unavailable_tape_partition_max_job_retry_in_mins	How long job requests using unavailable tape partitions will retry before being re-chunked or failing if re-chunking cannot solve the problem. Default: 20 minutes	no
verify_checkpoint_before_read	When a tape cartridge is loaded into a drive, this parameter controls whether the BlackPearl system verifies the starting checkpoint of the tape before reading data. Values: TRUE (default), FALSE	no

Responses

Response Elements

```

<Data>
  <Activated>TRUE | FALSE</Activated>
  <AllowNewJobRequests>TRUE | FALSE</AllowNewJobRequests>
  <AutoActivateTimeoutInMins>
    {32-bit integer}
  </AutoActivateTimeoutInMins>
  <AutoInspect>DEFAULT | MINIMAL | NEVER</AutoInspect>
  <CacheAvailableRetryAfterInSeconds>
    {32-bit integer}
  </CacheAvailableRetryAfterInSeconds>
  <DefaultVerifyDataAfterImport>
    URGENT | HIGH | NORMAL | LOW
  </DefaultVerifyDataAfterImport>
  <DefaultVerifyDataPriorToImport>
    TRUE | FALSE
  </DefaultVerifyDataPriorToImport>
  <Id>{string}</Id>
  <InstanceId>{string}</InstanceId>
  <IomCacheLimitationPercent>{double}</IomCacheLimitationPercent>
  <IomEnabled>TRUE | FALSE</IomEnabled>
  <LastHeartbeat>YYYY-MM-DDThh:mm:ss.xxxZ</LastHeartbeat>
  <MaxAggregatedBlobsPerChunk>
    {32-bit integer}
  </MaxAggregatedBlobsPerChunk>

```

```

<PartiallyVerifyLastPercentOfTape>
  {32-bit integer}
</PartiallyVerifyLastPercentOfTape>
<PoolSafetyEnabled>TRUE|FALSE</PoolSafetyEnabled>
<UnavailableMediaPolicy>
  ALLOW|DISCOURAGED|DISALLOW
</UnavailableMediaPolicy>
<UnavailablePoolMaxJobRetryInMins>
  {32-bit integer}
</UnavailablePoolMaxJobRetryInMins>
<UnavailableTapePartitionMaxJobRetryInMins>
  {32-bit integer}
</UnavailableTapePartitionMaxJobRetryInMins>
<VerifyCheckpointBeforeRead>TRUE|FALSE</VerifyCheckpointBeforeRead>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Activated	Whether the BlackPearl gateway is allowed to send to the data path backend (pool or tape partitions). Values: TRUE, FALSE
AllowNewJob Requests	Whether the BlackPearl gateway allows new jobs to be initiated. Values: TRUE, FALSE
AutoActivate TimeoutInMins	The number of minutes allowed for the data planner to take between when it is shut down and when it comes back up, and have the data path back end automatically activate. If the data planner remains shutdown for longer than this number of minutes, the data path backend will not automatically activate. If this parameter is null, the data path backend will never automatically activate.
AutoInspect	Whether tape inspections are automatically scheduled whenever the data planner starts. Values: DEFAULT, MINIMAL, NEVER See auto_inspect on page 1044.
CacheAvailable RetryAfterIn Seconds	The recommended number of seconds for clients to wait between sending Get Job Chunks Ready for Processing (see page 222) requests.

Parameter	Description
DefaultVerifyDataAfterImport	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW
DefaultVerifyData PriorToImport	Whether the data must be verified before the tape is imported. Values: TRUE, FALSE Note: It is recommended to verify data prior to import whenever it is possible that the tapes being imported contain objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.
Id	The UUID for the record. This is only useful to the BlackPearl gateway.
InstanceID	The UUID for the BlackPearl gateway session.
IomCacheLimitationPercent	The percentage of the cache, represented as a decimal, that can be used for IOM tasks.
IomEnabled	Whether Intelligent Object Management (IOM) is enabled.
LastHeartbeat	The date and time that the gateway last sent a heartbeat in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
MaxAggregatedBlobsPerChunk	The maximum number of blobs that can be aggregated into a single tape task.
PartiallyVerifyLastPercentOfTapes	The percentage of the overall tape capacity before the EOD marker that the BlackPearl gateway verifies during data integrity verification. Verifying a percentage of the tape, rather than the entire tape is useful when you only want to verify the most recent data written to the tape. Values: 1-99 Note: To verify the entire tape, see Verify Tape on page 831 .
PoolSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the storage pool before returning that the operation is complete. Values: TRUE (default), FALSE

Parameter	Description
UnavailableMedia Policy	Whether new job requests are allowed to use partitions that are currently unavailable. Values: ALLOW , DISCOURAGE , DISALLOW See <code>unavailable_media_policy</code> on page 1045.
UnavailablePool MaxJobRetryIn Mins	How long job requests using unavailable pools will retry before being re-chunked or failing if re-chunking cannot solve the problem.
UnavailableTape PartitionMaxJob RetryInMins	How long job requests using unavailable tape partitions will retry before being re-chunked or failing if re-chunking cannot solve the problem.
VerifyCheckpointBeforeRead	When a tape cartridge is loaded into a drive, this parameter controls whether the BlackPearl system verifies the starting checkpoint of the tape before reading data. Values: TRUE (default), FALSE

Example

Sample Request

This request activates the data path backend.

```
PUT http://blackpearl-hostname/_rest_/data_path_backend/?activated=TRUE HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Activated>TRUE</Activated>
  <AllowNewJobRequests>TRUE</AllowNewJobRequests>
  <AutoActivateTimeoutInMins>44</AutoActivateTimeoutInMins>
  <AutoInspect>DEFAULT</AutoInspect>
  <CacheAvailableRetryAfterInSeconds>
    300
  </CacheAvailableRetryAfterInSeconds>
  <DefaultVerifyDataAfterImport/>
  <DefaultVerifyDataPriorToImport>
    TRUE
  </DefaultVerifyDataPriorToImport>
```

```
<Id>c9cebae2-a312-489e-b92c-84030957983a</Id>
<InstanceId>2d6b0169-ce66-472a-9c61-c9dcd0b650b8</InstanceId>
<IomCacheLimitationPercent>.5</IomCacheLimitationPercent>
<IomEnabled>TRUE</IomEnabled>
<LastHeartbeat>2016-01-21T18:53:55.000Z</LastHeartbeat>
<MaxAggregatedBlobsPerChunk>
  20000
</MaxAggregatedBlobsPerChunk>
<PartiallyVerifyLastPercentOfTape>
  15
</PartiallyVerifyLastPercentOfTape>
<PoolSafetyEnabled>TRUE</PoolSafetyEnabled>
<UnavailableMediaPolicy>DISCOURAGED</UnavailableMediaPolicy>
<UnavailablePoolMaxJobRetryInMins>
  20
</UnavailablePoolMaxJobRetryInMins>
<UnavailableTapePartitionMaxJobRetryInMins>
  20
</UnavailableTapePartitionMaxJobRetryInMins>
<VerifyCheckpointBeforeRead>FALSE</VerifyCheckpointBeforeRead>
</Data>
```

CHAPTER 21 - DEGRADATION OPERATIONS

This chapter provides detailed information about suspect and degraded data. Data is considered suspect if one or more copies of the data is corrupt (if the checksum read does not match the expected value). Data is considered degraded if it is manually marked as lost (for example, if an ejected tape that contains a copy is marked as permanently lost) or if suspect data is manually marked as degraded. Degraded data can still be read provided that at least one copy of the data is good. If every copy of copy of the data is marked as degraded, this eliminates your ability to GET or VERIFY the object.

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CLEAR SUSPECT OBJECT PART IN STORAGE POOL

Description

Clear the specified suspect blob (object part) degradation record for suspect object parts in a storage pool, permitting the BlackPearl gateway to use the storage pool again to GET or VERIFY those object parts.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/suspect_blob_pool/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway clears the suspect blob degradation records for all storage pools.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect blob degradation records to clear.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
ids	The container for all suspect records to clear.	yes
id	The UUID or other unique attribute for the suspect record to clear. See Get Suspect Object Parts in Storage Pools on page 1078 .	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request clears the suspect blob degradation record for suspect object parts in all storage pools.

```
DELETE http://blackpearl-hostname/_rest_/suspect_blob_pool/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAR SUSPECT OBJECT PART ON TAPE

Description

Clear the specified suspect blob (object part) degradation record for suspect object parts on a tape, permitting the BlackPearl gateway to use the tape again to GET or VERIFY those object parts.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/suspect_blob_tape/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway clears the suspect blob degradation records for all tape media.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect blob degradation records to clear.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
Ids	The container for all suspect records to clear.	yes
Id	The UUID or other unique attribute for the suspect record to clear. See Get Suspect Object Parts on Tape Media on page 1080 .	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request clears the suspect blob degradation record for the suspect object parts on all tape media.

```
DELETE http://blackpearl-hostname/_rest_/suspect_blob_tape/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAR SUSPECT OBJECT PART ON AN AMAZON S3 TARGET

Description

Clear the specified suspect blob (object part) degradation record for suspect object parts on an Amazon S3 target, permitting the BlackPearl gateway to use the target again to GET or VERIFY those object parts.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/suspect_blob_s3_target/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway clears the suspect blob degradation records for all BlackPearl targets.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect Amazon S3 blob degradation records to clear.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
ids	The container for all suspect records to clear.	yes
id	The UUID or other unique attribute for the suspect record to clear. See Get Suspect Object Parts on Amazon S3 Targets on page 1082.	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request clears the suspect blob degradation record for suspect object parts on all Amazon S3 targets.

```
DELETE http://blackpearl-hostname/_rest_/suspect_blob_s3_target/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAR SUSPECT OBJECT PART ON AN AZURE TARGET

Description

Clear the specified suspect blob (object part) degradation record for suspect object parts on an Azure target, permitting the BlackPearl gateway to use the target again to GET or VERIFY those object parts.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/suspect_blob_azure_target/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway clears the suspect blob degradation records for all Azure targets.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect Azure blob degradation records to clear.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
ids	The container for all suspect records to clear.	yes
id	The UUID or other unique attribute for the suspect record to clear. See Get Suspect Object Parts on Azure Targets on page 1084 .	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request clears the suspect blob degradation record for suspect object parts on all Azure targets.

```
DELETE http://blackpearl-hostname/_rest_/suspect_blob_azure_target/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CLEAR SUSPECT OBJECT PART ON A DS3 TARGET

Description

Clear the specified suspect blob (object part) degradation record for suspect object parts on a BlackPearl target, permitting the BlackPearl gateway to use the target again to GET or VERIFY those object parts.

Requests

Syntax

```
DELETE http[s]://{datapathDNSname}/_rest_/suspect_blob_ds3_target/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway clears the suspect blob degradation records for all BlackPearl targets.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect DS3 blob degradation records to clear.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
ids	The container for all suspect records to clear.	yes
id	The UUID or other unique attribute for the suspect record to clear. See Get Suspect Object Parts on DS3 Targets on page 1086 .	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request clears the suspect blob degradation record for suspect object parts on all BlackPearl targets.

```
DELETE http://blackpearl-hostname/_rest_/suspect_blob_ds3_target/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET DEGRADED OBJECT PARTS

Description

Get all degraded object part records. Use parameters as selection criteria to return information for a subset of all degraded object parts.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/degraded_blob/[?blob_id={string}][&bucket_id={string}][&Ds3ReplicationRuleId={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&persistence_rule_id={string}][&replication_rule_id={string}]
```

Request Parameters

Parameter	Description	Required
blob_id	The UUID or other unique attribute for the blob.	no
bucket_id ¹	The name, UUID, or other unique attribute for the bucket.	no

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Parameter	Description	Required
ds3_replication_rule_id ¹	The name, UUID, or other unique attribute for the DS3 replication rule.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
persistence_rule_id ¹	The UUID or other unique attribute for the persistence rule.	no

Responses

Response Elements

```

<Data>
  <DegradedBlob>
    <AzureReplicationRuleId>{string}</AzureReplicationRuleId>
    <BlobId>{string}</BlobId>
    <BucketId>{string}</BucketId>
    <DS3ReplicationRuleId>{string}</DS3ReplicationRuleId>
    <Id>{string}</Id>
    <PersistenceRuleId>{string}</PersistenceRuleId>
    <S3ReplicationRuleId>{string}</S3ReplicationRuleId>
  </DegradedBlob>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DegradedBlob	The container for information about a single blob.
AzureReplicationRuleId	The UUID for the Azure replication rule.
BlobId	The UUID for the blob.
BucketId	The UUID for the bucket.
Ds3ReplicationRuleId	The UUID for the DS3 replication rule.
PersistenceRuleId	The UUID for the persistence rule.
S3ReplicationRuleId	The UUID for the Amazon S3 replication rule.

Example

Sample Request

This request gets information about all degraded object parts.

```
GET http[s]://blackpearl-hostname/_rest_/degraded_blob/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DegradedBlob>
    <AzureReplicationRuleId/>
    <BlobId>dcbe024c-999d-4f79-ae9d-079a09b3a2f5</BlobId>
    <BucketId>059e4b7d-bed3-441a-93d4-463bc5d8a8d3</BucketId>
    <Ds3ReplicationRuleId/>
    <Id>6989f3a9-b247-4cc3-a007-3c2b914772b8</Id>
    <PersistenceRuleId>
      6840231b-1546-4560-a90b-76a6c86b3d1f
    </PersistenceRuleId>
    <S3ReplicationRuleId/>
  </DegradedBlob>
  ...
</Data>
```

GET DEGRADED BUCKETS

Description

Get information about buckets containing degraded data. Use parameters as selection criteria to return information for a subset of all buckets with degraded data.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/degraded_bucket/[?data_policy_id={string}]
[&last_page][&name={string}][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&user_id={string}]
```

Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	no
last_page	If included, only the last page of results is returned.	no
name ¹	The name of the bucket.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id ¹	The UUID, username, or a unique attribute for the bucket owner.	no

¹) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <Bucket>
    <CreationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</CreationDate>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <LastPreferredChunkSizeInBytes>
      {64-bit integer}
    </LastPreferredChunkSizeInBytes>
    <Name>{string}</Name>
    <Protected>TRUE|FALSE</Protected>
    <UserId>{string}</UserId>
  </Bucket>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Bucket	The container for information about a single bucket.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DataPolicyId	The UUID for the assigned data policy.
Id	The UUID for the bucket.
LastPreferredChunkSizeInBytes	The last preferred chunk size computed for a PUT job for this bucket.
Name	The name of the bucket.
Protected	The protection status of the bucket.
UserId	The UUID for the bucket owner.

Example

Sample Request

This request gets information about all degraded buckets.

```
GET http[s]://blackpearl-hostname/_rest_/degraded_bucket/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Bucket>
    <CreationDate>2015-11-18T10:56:11.847Z</CreationDate>
    <DataPolicyId>
      798ef69d-2a40-4c3e-a4c2-b3c1ff12d511
    </DataPolicyId>
    <Id>c0ac51be-e505-4cd5-b82a-6c8cc8daaf72</Id>
    <LastPreferredChunkSizeInBytes/>
    <Name>bucketName</Name>
    <Protected>FALSE</Protected>
    <UserId>c6f8cf8eb-0ddf-42db-b999-767a4fb5bb44</UserId>
  </Bucket>
</Data>
```

GET DEGRADED DATA PERSISTENCE RULES

Description

Get information about data persistence rules containing degradation. Use parameters as selection criteria to return information for a subset of all data persistence rules with degraded data.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/degraded_data_persistence_rule/[?data_policy_id={string}][&isolation_level=STANDARD|BUCKET_ISOLATED][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&state=NORMAL|INCLUSION_IN_PROGRESS][&storage_domain_id={string}][&type=PERMANENT|TEMPORARY|RETIRED]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
isolation_level	The level of physical isolation required for the data retention. Values: STANDARD , BUCKET_ISOLATED . See isolation_level on page 324 for descriptions.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of data persistence rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first data persistence rule to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
state	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.	no
storage_domain_id	Storage domain UUID or other unique attribute.	no
type	The type of persistence rule. Values: PERMANENT , RETIRED , TEMPORARY . See Type on page 349 for descriptions.	no

Responses

Response Elements

```
<Data>
  <DataPersistenceRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <IsolationLevel>STANDARD|BUCKET_ISOLATED</IsolationLevel>
    <MinimumDaysToRetain>{32-bit integer}</MinimumDaysToRetain>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <StorageDomainId>{string}</StorageDomainId>
    <Type>PERMANENT|TEMPORARY|RETIRED</Type>
  </DataPersistenceRule>
  ...
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DataPersistence Rule	The container for information about one data persistence rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the persistence rule.
IsolationLevel	The level of physical isolation required for data retention. Values: STANDARD , BUCKET_ISOLATED . See isolation_level on page 324 for descriptions.
MinimumDaysTo Retain	The minimum number of days the data should be retained based on a TEMPORARY persistence rule.
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
StorageDomainId	The UUID for the storage domain.

Parameter	Description
Type	The type of persistence rule. Values: PERMANENT , TEMPORARY , RETIRED . See Type on page 349 for descriptions.

Example

Sample Request

This request gets information about all data persistence rules with degradation.

```
GET http://blackpearl-hostname/_rest_/degraded_data_persistence_rule/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <DataPersistenceRule>
    <DataPolicyId>
      c71a3a94-517b-47ff-be02-4f190c74d3c6
    </DataPolicyId>
    <Id>00776a08-6ac2-4522-b2c9-c2e50102cadb</Id>
    <IsolationLevel>STANDARD</IsolationLevel>
    <MinimumDaysToRetain/>
    <State>NORMAL</State>
    <StorageDomainId>
      e3d3fb89-fdc2-440e-9607-2a32d5ca1133
    </StorageDomainId>
    <Type>PERMANENT</Type>
  </DataPersistenceRule>
  ...
</Data>
```

GET DEGRADED AMAZON S3 REPLICATION RULES

Description

Get information about Amazon S3 replication rules containing degradation. Use parameters as selection criteria to return information for a subset of all Amazon S3 data replication rules with degraded data.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/degraded_s3_data_replication_rule/[?data_policy_id={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&state=NORMAL|INCLUSION_IN_PROGRESS][&target_id={string}][&type=PERMANENT|RETIRED]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of data replication rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first data replication rule to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
state	The state of the replication rule. Values: <ul style="list-style-type: none"> NORMAL — The replication rule is in a normal, included state. INCLUSION_IN_PROGRESS — The replication rule is being applied and data replication is required before the replication rule is in a normal, fully included state. 	no
target_id	The Amazon S3 target name, UUID, or other unique attribute.	no
type	The type of replication rule. Values: <ul style="list-style-type: none"> PERMANENT — A copy of the data is maintained on the target. RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data. 	no

Responses

Response Elements

```
<Data>
  <S3DataReplicationRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <InitialDataPlacement>
      STANDARD|REDUCED_REDUNDANCY|STANDARD_IA|GLACIER|DEEP_ARCHIVE
    </InitialDataPlacement>
    <MaxBlobPartSizeInBytes>
      {64-bit integer}
    </MaxBlobPartSizeInBytes>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <TargetId>{string}</TargetId>
    <Type>PERMANENT|RETIRED</Type>
  </S3DataReplicationRule>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
S3Data ReplicationRule	The container for information about one Amazon S3 data replication rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the data replication rule.
InitialPlacement	The storage class for any blobs transferred to the Amazon S3 instance. Values: Standard , Reduced Redundancy , Standard IA , Glacier , Deep Archive . See initial_data_placement on page 334 for definitions.
MaxBlobSizeIn Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB

Parameter	Description
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Amazon S3 target.
Type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data.

Example

Sample Request

This request gets information about all Amazon S3 data replication rules with degradation.

```
GET http://blackpearl-hostname/_rest_/degraded_s3_data_replication_rule/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <S3DataReplicationRule>
    <DataPolicyId>
      3f934efd-ecc3-43ff-b802-0c21e19e28ec
    </DataPolicyId>
    <Id>4f4a1d7b-6325-4a0b-aeb7-868500ec81c0</Id>
    <InitialDataPlacement>STANDARD_IA</InitialDataPlacement>
    <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
    <State>NORMAL</State>
    <TargetId>
      b82d4784-509f-46e8-bdb0-e7e4a716bc75
    </TargetId>
    <Type>PERMANENT</Type>
  </S3DataReplicationRule>
</Data>
```

GET DEGRADED AZURE REPLICATION RULES

Description

Get information about Azure replication rules containing degradation. Use parameters as selection criteria to return information for a subset of all Azure data replication rules with degraded data.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/degraded_azure_data_replication_rule/[?data_policy_id={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&state=NORMAL|INCLUSION_IN_PROGRESS][&target_id={string}][&type=PERMANENT|RETIRED]
```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of data replication rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first data replication rule to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Parameter	Description	Required
state	The state of the replication rule. Values: <ul style="list-style-type: none"> • NORMAL — The replication rule is in a normal, included state. • INCLUSION_IN_PROGRESS — The replication rule is being applied and data replication is required before the replication rule is in a normal, fully included state. 	no
target_id	The Azure target name, UUID, or other unique attribute.	no
type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is maintained on the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data. 	no

Responses

Response Elements

```

<Data>
  <AzureDataReplicationRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <MaxBlobPartSizeInBytes>
      {64-bit integer}
    </MaxBlobPartSizeInBytes>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <TargetId>{string}</TargetId>
    <Type>PERMANENT|RETIRED</Type>
  </AzureDataReplicationRule>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
AzureDataReplicationRule	The container for information about one Azure data replication rule.
DataPolicyId	The UUID for the data policy.

Parameter	Description
Id	The UUID for the data replication rule.
MaxBlobSizeIn Bytes	The maximum blob size used when creating bulk PUT jobs. Default: 100 GB
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetId	The UUID for the Azure target.
Type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data.

Example

Sample Request

This request gets information about all Azure data replication rules with degradation.

```
GET http://blackpearl-hostname/_rest_/degraded_azure_data_replication_rule/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <AzureDataReplicationRule>
    <DataPolicyId>
      3f934efd-ecc3-43ff-b802-0c21e19e28ec
    </DataPolicyId>
    <Id>4f4a1d7b-6325-4a0b-aeb7-868500ec81c0</Id>
    <MaxBlobPartSizeInBytes>1073741824</MaxBlobPartSizeInBytes>
    <State>NORMAL</State>
```

```

    <TargetDataPolicy/>
    <TargetId>
      b82d4784-509f-46e8-bdb0-e7e4a716bc75
    </TargetId>
    <Type>PERMANENT</Type>
  </AzureDataReplicationRule>
</Data>

```

GET DEGRADED DS3 REPLICATION RULES

Description

Get information about DS3 replication rules containing degradation. Use parameters as selection criteria to return information for a subset of all Ds3data replication rules with degraded data.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/degraded_ds3_data_replication_rule/[?data_
policy_id={string}][&last_page][&page_length={32-bit integer}][&page_offset=
{32-bit integer}][&page_start_marker={string}][&state=NORMAL|INCLUSION_IN_PROGRESS]
[&target_id={string}][&type=PERMANENT|RETIRED]

```

Request Parameters

Parameter	Description	Required
data_policy_id	Data policy UUID or other unique attribute.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of data replication rules to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first data replication rule to list. Default: 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
state	The state of the replication rule. Values: <ul style="list-style-type: none"> • NORMAL — The replication rule is in a normal, included state. • INCLUSION_IN_PROGRESS — The replication rule is being applied and data replication is required before the replication rule is in a normal, fully included state. 	no
target_id	The BlackPearl target name, UUID, or other unique attribute.	no
type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is maintained on the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data. 	no

Responses

Response Elements

```

<Data>
  <Ds3DataReplicationRule>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <State>NORMAL|INCLUSION_IN_PROGRESS</State>
    <TargetDataPolicy>{string}</TargetDataPolicy>
    <TargetId>{string}</TargetId>
    <Type>PERMANENT|RETIRED</Type>
  </Ds3DataReplicationRule>
</Data>

```


where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Ds3Data ReplicationRule	The container for information about one DS3 data replication rule.
DataPolicyId	The UUID for the data policy.
Id	The UUID for the data replication rule.
State	The state of the persistence rule. Values: NORMAL — The persistence rule is in a normal, included state. INCLUSION_IN_PROGRESS — The persistence rule is being applied and data copying is required before the persistence rule is in a normal, fully included state.
TargetDataPolicy	The UUID for the data policy on the BlackPearl target.
TargetId	The UUID for the BlackPearl target.
Type	The type of replication rule. Values: <ul style="list-style-type: none"> • PERMANENT — A copy of the data is replicated to the target. • RETIRED — A copy of already replicated data is maintained, but the rule is not applied to new data.

Example

Sample Request

This request gets information about all DS3 data replication rules with degradation.

```
GET http://blackpearl-hostname/_rest_/degraded_ds3_data_replication_rule/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Ds3DataReplicationRule>
    <DataPolicyId>
      3f934efd-ecc3-43ff-b802-0c21e19e28ec
    </DataPolicyId>
    <Id>4f4a1d7b-6325-4a0b-aeb7-868500ec81c0</Id>
```

```

<State>NORMAL</State>
<TargetDataPolicy/>
<TargetId>
  b82d4784-509f-46e8-bdb0-e7e4a716bc75
</TargetId>
<Type>PERMANENT</Type>
</Ds3DataReplicationRule>
</Data>

```

GET SUSPECT OBJECT PARTS IN STORAGE POOLS

Description

Get information about all object parts persisted to storage pools that the BlackPearl gateway suspects are degraded.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_blob_pool/[?blob_id={string}][&last_page]
[&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&pool_id={string}]
```

Request Parameters

Parameter	Description	Required
blob_id	The UUID or other unique attribute for the object part.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no

Parameter	Description	Required
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
pool_id	The UUID or other unique attribute for the storage pool.	no

Responses

Response Elements

```
<Data>
  <SuspectBlobPool>
    <BlobId>{string}</BlobId>
    <BucketId>{string}</BucketId>
    <DateWritten>{YYYY-MM-DDThh:mm:ss.xxxZ}</DateWritten>
    <Id>{string}</Id>
    <LastAccessed>{YYYY-MM-DDThh:mm:ss.xxxZ}</LastAccessed>
    <PoolId>{string}</PoolId>
  </SuspectBlobPool>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
SuspectBlobPool	The container for information about a single suspect object part in a storage pool.
BlobId	The UUID for the blob.
BucketId	The UUID for the bucket.
DateWritten	The date and time the object part was written in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Id	The UUID for the suspect blob degradation record.

Parameter	Description
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
PoolId	The UUID for the pool.

Example

Sample Request

This request gets information about all suspect object parts on storage pools.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_blob_pool/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <SuspectBlobPool>
```

```
    <BlobId>d991047d-e884-4e55-98ee-fdd3888bad2f</BlobId>
```

```
    <BucketId>fc4de051-392a-442f-8c72-c3237308f1d2</BucketId>
```

```
    <DateWritten>2016-05-19T00:47:48.000Z</DateWritten>
```

```
    <Id>c8ec1c60-80da-4d77-a1f9-6a5725e8728a</Id>
```

```
    <LastAccessed>2016-05-19T00:47:48.000Z</LastAccessed>
```

```
    <PoolId>c65797ba-d3ad-4ac3-aae8-defb0ee36614</PoolId>
```

```
  </SuspectBlobPool>
```

```
</Data>
```

GET SUSPECT OBJECT PARTS ON TAPE MEDIA

Description

Get information about all object parts persisted to tape that the BlackPearl gateway suspects are degraded.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_blob_tape/[?blob_id={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}][&tape_id={string}]
```

Request Parameters

Parameter	Description	Required
blob_id	The UUID or other unique attribute for the object part.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
tape_id	The UUID or other unique attribute for the tape.	no

Responses

Response Elements

```
<Data>
  <SuspectBlobTape>
    <BlobId>{string}</BlobId>
    <Id>{string}</Id>
    <OrderIndex>{32-bit integer}</OrderIndex>
    <TapeId>{string}</TapeId>
  </SuspectBlobTape>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
SuspectBlobTape	The container for information about a single suspect object part on tape.
BlobId	The UUID for the blob.
Id	The UUID for the suspect blob degradation record.
OrderIndex	The position of the blob in the LTFS index.
TapeId	The UUID for the tape.

Example

Sample Request

This request gets information about all suspect object parts on tape media.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_blob_tape/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<SuspectBlobTape>
```

```
<BlobId>549b3056-ccff-4aff-acff-db46502d5706</BlobId>
```

```
<Id>c0dbb9e8-ed3f-4666-8f41-476e34b9c947</Id>
```

```
<OrderIndex>1</OrderIndex>
```

```
<TapeId>d797ac01-e6b4-4966-b3dc-5027b154fbaa</TapeId>
```

```
</SuspectBlobTape>
```

```
</Data>
```

GET SUSPECT OBJECT PARTS ON AMAZON S3 TARGETS

Description

Get information about all replicated object parts on Amazon S3 targets that the BlackPearl gateway suspects are degraded.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_blob_s3_target/[?blob_id={string}]
[&last_page] [&page_length={32-bit integer}] [&page_offset={32-bit integer}] [&page_
start_marker={string}] [&target_id={string}]
```

Request Parameters

Parameter	Description	Required
blob_id	The UUID or other unique attribute for the object part.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	The UUID, name, or other unique attribute for the Amazon S3 target.	no

Responses

Response Elements

```
<Data>
  <SuspectBlobS3Target>
    <BlobId>{string}</BlobId>
    <Id>{string}</Id>
    <TargetId>{string}</TargetId>
  </SuspectBlobS3Target>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
SuspectBlobAzureTarget	The container for information about a single suspect object part on an Amazon S3 target.
BlobId	The UUID for the blob.
TargetId	The UUID for the Amazon S3 target.
Id	The UUID for the suspect blob degradation record.

Example

Sample Request

This request gets information about all suspect object parts on Amazon S3 targets.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_blob_s3_target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <SuspectBlobS3Target>
```

```
    <BlobId>549b3056-ccff-4aff-acff-db46502d5706</BlobId>
```

```
    <Id>c0dbb9e8-ed3f-4666-8f41-476e34b9c947</Id>
```

```
    <TargeId>d797ac01-e6b4-4966-b3dc-5027b154fbaa</TargeId>
```

```
  </SuspectBlobS3Target>
```

```
</Data>
```

GET SUSPECT OBJECT PARTS ON AZURE TARGETS

Description

Get information about all replicated object parts on Azure targets that the BlackPearl gateway suspects are degraded.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_blob_azure_target/[?blob_id={string}]
[&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&target_id={string}]
```

Request Parameters

Parameter	Description	Required
blob_id	The UUID or other unique attribute for the object part.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	The UUID, name, or other unique attribute for the Azure target.	no

Responses

Response Elements

```
<Data>
  <SuspectBlobAzureTarget>
    <BlobId>{string}</BlobId>
    <Id>{string}</Id>
    <TargetId>{string}</TargetId>
  </SuspectBlobAzureTarget>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
SuspectBlobAzureTarget	The container for information about a single suspect object part on an Azure target.
BlobId	The UUID for the blob.
TargetId	The UUID for the Azure target.
Id	The UUID for the suspect blob degradation record.

Example

Sample Request

This request gets information about all suspect object parts on Azure targets.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_blob_azure_target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <SuspectBlobAzureTarget>
```

```
    <BlobId>549b3056-ccff-4aff-acff-db46502d5706</BlobId>
```

```
    <Id>c0dbb9e8-ed3f-4666-8f41-476e34b9c947</Id>
```

```
    <TargeId>d797ac01-e6b4-4966-b3dc-5027b154fbaa</TargeId>
```

```
  </SuspectBlobAzureTarget>
```

```
</Data>
```

GET SUSPECT OBJECT PARTS ON DS3 TARGETS

Description

Get information about all replicated object parts on BlackPearl targets that the BlackPearl gateway suspects are degraded.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_blob_ds3_target/[?blob_id={string}]
[&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&target_id={string}]
```

Request Parameters

Parameter	Description	Required
blob_id	The UUID or other unique attribute for the object part.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
target_id	The UUID, name, or other unique attribute for the BlackPearl target.	no

Responses

Response Elements

```
<Data>
  <SuspectBlobDs3Target>
    <BlobId>{string}</BlobId>
    <Id>{string}</Id>
    <TargetId>{string}</TargetId>
  </SuspectBlobDs3Target>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
SuspectBlobDs3Target	The container for information about a single suspect object part on a BlackPearl target.
BlobId	The UUID for the blob.
TargetId	The UUID for the BlackPearl target.
Id	The UUID for the suspect blob degradation record.

Example

Sample Request

This request gets information about all suspect object parts on BlackPearl targets.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_blob_ds3_target/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <SuspectBlobDs3Target>
```

```
    <BlobId>549b3056-ccff-4aff-acff-db46502d5706</BlobId>
```

```
    <Id>c0dbb9e8-ed3f-4666-8f41-476e34b9c947</Id>
```

```
    <TargeId>d797ac01-e6b4-4966-b3dc-5027b154fbaa</TargeId>
```

```
  </SuspectBlobDs3Target>
```

```
</Data>
```

GET SUSPECT BUCKETS

Description

Get information about all buckets that the BlackPearl gateway suspects are degraded.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_bucket/[?data_policy_id={string}]
[&last_page] [&name={string}] [&page_length={32-bit integer}] [&page_offset=
{32-bit integer}] [&page_start_marker={string}] [&user_id={string}]
```

Request Parameters

Parameter	Description	Required
data_policy_id	The UUID, name, or other unique attribute for the data policy.	no
last_page	If included, only the last page of results is returned.	no
name 1	The name of the bucket.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
user_id 1	The UUID, username, or a unique attribute for the bucket owner.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <Bucket>
    <CreationDate>{string}</CreationDate>
    <DataPolicyId>{string}</DataPolicyId>
    <Id>{string}</Id>
    <LastPreferredChunkSizeInBytes>
      {64-bit integer}
    </LastPreferredChunkSizeInBytes>
    <Name>{string}</Name>
    <Protected>TRUE | FALSE</Protected>
    <UserId>{string}</UserId>
  </Bucket>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Bucket	The container for information about a single bucket.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ.
DataPolicyId	The UUID for the assigned data policy.
Id	The UUID for the bucket.
LastPreferredChunkSizeInBytes	The last preferred chunk size computed for a PUT job for this bucket.
Name	The name of the bucket.
Protected	The protection status of the bucket.
UserId	The UUID for the bucket owner.

Example

Sample Request

This request gets information about all buckets that the BlackPearl gateway suspects are degraded.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_bucket/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<Bucket>
```

```
<CreationDate>2016-05-19T00:47:49.000Z</CreationDate>
```

```
<DataPolicyId>
```

```
    c9d9c184-a748-4ae0-a8bc-551813bbd256
```

```
</DataPolicyId>
```

```
<Id>14058691-a3de-4fd3-9d3d-8401f10e0c59</Id>
```

```
<LastPreferredChunkSizeInBytes/>
```

```
<Name>bucket</Name>
```

```
<Protected>FALSE</Protected>
```

```
<UserId>8f63bd3f-d9a3-4899-8638-7817754e2e93</UserId>
```

```
</Bucket>
```

```
</Data>
```

GET SUSPECT OBJECTS

Get a list of all objects that the BlackPearl gateway suspects are degraded. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_object/[?bucket_id={string}][&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of buckets to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first bucket to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```
<Data>
  <S3Object>
    <BucketId>{string}</BucketId>
    <CreationDate/>
    <Id>{string}</Id>
    <Latest>TRUE | FALSE</Latest>
    <Name>{string}</Name>
    <Type>DATA | FOLDER</Type>
  </S3Object>
</Data>
```

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Data	A container for the response.
S3Object	The container for information about one object.
BucketId	The UUID for the bucket to which the object is assigned.
CreationDate	The date and time the bucket was created in the format YYYY-MM-DDThh:mm:ss.xxxZ .
Id	The UUID for the Object
Latest	Whether this version of the object is the latest. Values: TRUE, FALSE
Name	The name of the object.
Type	The type of object. Values: DATA, FOLDER

Example

Sample Request

This request gets information about all objects that the BlackPearl gateway suspects are degraded.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_object/ HTTP/1.1
```

Sample Response

```
<Data>
  <S3Object>
    <BucketId>d8299ae8-1be9-4a80-94a3-918a7846457b</BucketId>
    <CreationDate/>
    <Id>7a84ae35-d0e8-4d6d-baa6-f773065986f6</Id>
    <Latest>>true</Latest>
    <Name>object1</Name>
    <Type>DATA</Type>
  </S3Object>
</Data>
```

GET SUSPECT OBJECTS WITH FULL DETAILS

Description

Get detailed information about all objects that the BlackPearl gateway suspects are degraded. Use parameters to get suspect object in one storage domain or one bucket.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/suspect_object/?full_details [&bucket_id={string}][&storage_domain={string}]
```

Request Parameters

Parameter	Description	Required
full_details	Included to get a response that includes physical placement information.	yes
bucket_id ¹	The UUID, name, or other unique identifier for the bucket on which the job is operating.	no
storage_domain ¹	The UUID, name, or other unique attribute for the storage domain.	no

Responses

Response Elements

```
<Data>
  <Object Id="{string}" InCache="TRUE|FALSE" Latest="TRUE|FALSE"
    Length="{64-bit integer}" Name="{string}"
    "Offset="{64-bit integer}" VersionId="{string}">
    <PhysicalPlacement>
      <AzureTargets>
        <AzureTarget>
          <AccountKey>{string}</AccountKey>
```

¹ Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

```

    <AccountName>{string}</AccountName>
    <AutoVerifyFrequencyInDays>
      {integer}
    </AutoVerifyFrequencyInDays>
    <CloudBucketPrefix>{string}</CloudBucketPrefix>
    <CloudBucketSuffix>{string}</CloudBucketSuffix>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|
      AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
      LAST_RESORT|NEVER
    </DefaultReadPreference>
    <Https>TRUE|FALSE</Https>
    <Id>{string}</Id>
    <LastFullyVerified/>
    <Name>{string}</Name>
    <PermitGoingOutOfSync>
      TRUE|FALSE
    </PermitGoingOutOfSync>
    <Quiesced>NO|PENDING|YES</Quiesced>
    <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
  </AzureTarget>
  ...
</AzureTargets>
<Ds3Targets>
  <Ds3Target>
    <AccessControlReplication>
      NONE|USERS
    </AccessControlReplication>
    <AdminAuthId>{string}</AdminAuthId>
    <AdminSecretKey>{string}</AdminSecretKey>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DataPathHttps>TRUE|FALSE</DataPathHttps>
    <DataPathPort>{16-bit integer}</DataPathPort>
    <DataPathProxy>{string}</DataPathProxy>
    <DataPathVerifyCertificate>
      TRUE|FALSE
    </DataPathVerifyCertificate>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|
      AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
      LAST_RESORT|NEVER
    </DefaultReadPreference>
    <Id>{string}</Id>
    <Name>{string}</Name>
  </Ds3Target>
</Ds3Targets>

```

```

    <PermitGoingOutOfSync>
      TRUE | FALSE
    </PermitGoingOutOfSync>
    <Quiesced>NO | PENDING | YES</Quiesced>
    <ReplicatedUserDefaultDataPolicy>
      {string}
    </ReplicatedUserDefaultDataPolicy>
    <State>ONLINE | OFFLINE</State>
  </Ds3Target>
  ...
</Ds3Targets>
<Pools>
  <Pool>
    <AssignedToStorageDomain>
      TRUE | FALSE
    </AssignedToStorageDomain>
    <AvailableCapacity>
      {64-bit integer}
    </AvailableCapacity>
    <BucketId>{string}</BucketId>
    <Guid>{string}</Guid>
    <Health>OK | DEGRADED</Health>
    <Id>{string}</Id>
    <LastAccessed>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastAccessed>
    <LastModified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastModified>
    <LastVerified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastVerified>
    <Mountpoint>/{string}</Mountpoint>
    <Name>{string}</Name>
    <PartitionId>{string}</PartitionId>
    <PoweredOn>TRUE | FALSE</PoweredOn>
    <Quiesced>NO | PENDING | YES</Quiesced>
    <ReservedCapacity>
      {64-bit integer}
    </ReservedCapacity>
    <State>
      NORMAL | FOREIGN | IMPORT_IN_PROGRESS |
      IMPORT_PENDING | LOST
    </State>
  </Pool>
</Pools>

```

```

    <StorageDomainMemberId>
      {string}
    </StorageDomainMemberId>
    <TotalCapacity>{64-bit integer}</TotalCapacity>
    <Type>NEARLINE|ONLINE</Type>
    <UsedCapacity>{64-bit integer}</UsedCapacity>
  </Pool>
  ...
</Pools>
<S3Targets>
  <S3Target>
    <AccessKey>{string}</AccessKey>
    <AutoVerifyFrequencyInDays>
      {integer}
    </AutoVerifyFrequencyInDays>
    <CloudBucketPrefix>{string}</CloudBucketPrefix>
    <CloudBucketSuffix>{string}</CloudBucketSuffix>
    <DataPathEndPoint>{string}</DataPathEndPoint>
    <DefaultReadPreference>
      MINIMUM_LATENCY|AFTER_ONLINE_POOL|
      AFTER_NEARLINE_POOL|AFTER_NON_EJECTABLE_TAPE|
      LAST_RESORT|NEVER
    </DefaultReadPreference>
    <Https>TRUE|FALSE</Https>
    <Id>{string}</Id>
    <LastFullyVerified>{string}</LastFullyVerified>
    <Name>{string}</Name>
    <NamingMode>BLACK_PEARL|AWS_S3</NamingMode>
    <OfflineDataStagingWindowInTh>
      {64-bit integer}
    </OfflineDataStagingWindowInTh>
    <PermitGoingOutOfSync>
      TRUE|FALSE
    </PermitGoingOutOfSync>
    <ProxyDomain>{string}</ProxyDomain>
    <ProxyHost>{string}</ProxyHost>
    <ProxyPassword>{string}</ProxyPassword>
    <ProxyPort>{64-bit integer}</ProxyPort>
    <ProxyUsername>{string}</ProxyUsername>
    <Quiesced>NO|PENDING|YES</Quiesced>
  </S3Target>
</S3Targets>

```

```

    <Region>
      US_EAST_1|US_EAST_2|US_WEST_1|US_WEST_2|
      EU_WEST_1|EU_WEST_2|EU_CENTRAL_1|AP_SOUTH_1|
      AP_SOUTHEAST_1|AP_SOUTHEAST_2|AP_NORTHEAST_1|
      AP_NORTHEAST_2|SA_EAST_1|CN_NORTH_1|GOV_CLOUD|
      CA_CENTRAL_1
    </Region>
    <SecretKey>{string}</SecretKey>
    <StagedDataExpirationInDays>
      {64-bit integer}
    </StagedDataExpirationInDays>
    <State>ONLINE|OFFLINE|LIMITED_ACCESS</State>
  </S3Target>
  ...
</S3Targets>
<Tapes>
  <Tape>
    <AssignedToStorageDomain>
      TRUE|FALSE
    </AssignedToStorageDomain>
    <AvailableRawCapacity>
      {64-bit integer}
    </AvailableRawCapacity>
    <BarCode>{string}</BarCode>
    <BucketId>{string}</BucketId>
    <DescriptionForIdentification>
      {string}
    </DescriptionForIdentification>
    <EjectDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</EjectDate>
    <EjectLabel>{string}</EjectLabel>
    <EjectLocation>{string}</EjectLocation>
    <EjectPending>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </EjectPending>
    <FullOfData>TRUE|FALSE</FullOfData>
    <Id>{string}</Id>
    <LastAccessed>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastAccessed>
    <LastCheckpoint>{string}</LastCheckpoint>
    <LastModified>
      {YYYY-MM-DDThh:mm:ss.xxxZ}
    </LastModified>
  </Tape>
</Tapes>

```

```

<LastVerified>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</LastVerified>
<PartiallyVerifiedEndOfTape>
  {YYYY-MM-DDThh:mm:ss.xxxZ}
</PartiallyVerifiedEndOfTape>
<PartitionId>{string}</PartitionId>
<PreviousState>
  NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|
  BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_
  PROTECTION|DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
  FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
  PROGRESS|IMPORT_PENDING|INCOMPATIBLE|
  LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_
  INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
  PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</PreviousState>
<Role>NORMAL|TEST</Role>
<SerialNumber>{string}</SerialNumber>
<State>
  NORMAL|AUTO_COMPACTION_IN_PROGRESS|BAD|
  BAR_CODE_MISSING|CANNOT_FORMAT_DUE_TO_WRITE_
  PROTECTION|DATA_CHECKPOINT_FAILURE|
  DATA_CHECKPOINT_FAILURE_DUE_TO_READ_ONLY|
  DATA_CHECKPOINT_MISSING|EJECT_FROM_EE_PENDING|
  EJECT_TO_EE_IN_PROGRESS|EJECTED|FOREIGN|
  FORMAT_IN_PROGRESS|FORMAT_PENDING|IMPORT_IN_
  PROGRESS|IMPORT_PENDING|INCOMPATIBLE|
  LOST|LTFS_WITH_FOREIGN_DATA|OFFLINE|
  ONLINE_IN_PROGRESS|ONLINE_PENDING|PENDING_
  INSPECTION|RAW_IMPORT_IN_PROGRESS|RAW_IMPORT_
  PENDING|SERIAL_NUMBER_MISMATCH|UNKNOWN
</State>
<StorageDomainMemberId>
  {string}
</StorageDomainMemberId>
<TakeOwnershipPending>
  TRUE|FALSE
</TakeOwnershipPending>

```

```

    <TotalRawCapacity>
      {64-bit integer}
    </TotalRawCapacity>
    <Type>
      LTO5|LTO6|LTO7|LTO8|LTOM8|LTO9|LTO_CLEANING_TAPE|
      TS_JC|TS_JD|TS_JE|TS_JK|TS_JL|TS_JM|TS_JV|
      TS_JY|TS_JZ|TS_CLEANING_TAPE|UNKNOWN|FORBIDDEN
    </Type>
    <VerifyPending>
      CRITICAL|URGENT|HIGH|NORMAL|LOW|BACKGROUND
    </VerifyPending>
    <WriteProtected>TRUE|FALSE</WriteProtected>
  </Tape>
  ...
</Tapes>
</PhysicalPlacement>
</Object>
...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
Object	The container for information about one object.
Id	The UUID for the Object
InCache	Whether the object is currently in cache. Values: TRUE , FALSE
Latest	Whether this version of the object is the latest. Values: TRUE , FALSE
Length	The length in bytes of the object.
Name	The name of the object.
Offset	The offset in bytes from the start of the object.
VersionId	The UUID of the version of the object.
PhysicalPlacement	The container for the list of storage types containing the object.

Parameter	Description
AzureTargets	The container for information about all Azure targets with degraded objects.
AzureTarget	The container for information about one Azure target with a degraded object.
AccountName	The account name for the Microsoft Azure account. Note: You can not use the same Account Name for multiple Microsoft Azure targets.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.
CloudBucketPrefix	The Azure target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Azure target.
CloudBucketSuffix	The Azure target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Azure target.
DefaultRead Preference	When it is preferable to read from the Azure target rather than the replication source. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE, FALSE .
Id	The UUID for the Azure target instance.
LastFullyVerified	The date and time the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Name	The name for the Azure target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for Azure targets.
Quiesced	Whether the Azure target is in a temporarily inactive state. Values: NO, PENDING, YES

Parameter	Description
State	The state of the Azure target. Values: ONLINE , OFFLINE , LIMITED_ACCESS
Ds3Targets	The container for information about all BlackPearl targets with degraded objects.
Ds3Target	The container for information about one BlackPearl target with a degraded object.
AccessControl Replication	The access control that is replicated to the BlackPearl target. Values: <ul style="list-style-type: none"> • NONE – No access control is replicated. • USERS – The source BlackPearl gateway replicates its users and passwords to the target gateway.
AdminAuthId	The S3 access ID assigned to an Administrator.
AdminSecretKey	The S3 secret key for the account matching the given AdminAuthId .
DataPathEndPoint	The IPv4 address or DNS name for the data path of the BlackPearl target.
DataPathHttps	Whether the source BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target gateway. Values: TRUE , FALSE
DataPathPort	The value of the port on which the target BlackPearl gateway's S3 server is running. If null, the parameter defaults to port 80 for HTTP connections and port 443 for HTTPS connections.
DataPathProxy	The proxy server for the source BlackPearl gateway to use to connect to the target gateway.
DataPathVerify Certificate	Whether the data path certificate is verified. When DataPathVerifyCertificate and DataPathHttps are both TRUE , the source BlackPearl gateway fully validates the target gateway's certificate. If the certificate is not trusted or problematic in anyway, it is not honored. Values: TRUE , FALSE

Parameter	Description
DefaultRead Preference	When it is preferable to read from the BlackPearl target rather than the replication source. Only use the MINIMUM_LATENCY read preference when the network between the source and target is very inexpensive. In this mode, the source BlackPearl gateway dynamically determines the read preference based on whether the requested data resides in a pool or on tape. For example, if the replication source has the data in a pool, the gateway reads the data from the local pool. If however, the replication source only has the data on tape and the BlackPearl target has the data in a pool, the data is read from the target pool. Values: MINIMUM_LATENCY, AFTER_ONLINE_POOL, AFTER_NEARLINE_POOL, AFTER_NON_EJECTABLE_TAPE, LAST_RESORT, NEVER
Id	The UUID for the BlackPearl target instance. Note: If a BlackPearl target has its instance identifier reset after it is registered on other BlackPearl gateways, the replication link is forever invalid and must be deleted and re-created.
Name	The name for the BlackPearl target.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. By default, if the data policy specifies that the BlackPearl gateway must replicate local actions, actions that the gateway cannot replicate fail. You can temporarily set this parameter to TRUE in order to operate in full capacity locally while one or more targets is down for a prolonged period of time.
Quiesced	Whether the BlackPearl target is in a temporarily inactive state. Values: NO, PENDING, YES
ReplicatedUser DefaultDataPolicy	The data policy the target applies as the default data policy for any users replicated to the target.
State	The state of the BlackPearl target. Values: ONLINE, OFFLINE, LIMITED_ACCESS
Pools	The container for information about all storage pools with degraded objects.
Pool	The container for information about one storage pool with a degraded object.

Parameter	Description
AssignedToStorageDomain	Whether the pool is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableCapacity	The amount of unused capacity on the pool in bytes.
BucketId	The UUID for the bucket to which the pool is assigned.
Guid	The ZFS identifier for the pool.
Health	Whether the pool is in good health or degraded. Values: OK, DEGRADED
Id	The UUID for the pool.
LastAccessed	The last date and time the pool was accessed in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastModified	The last date and time the object was modified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
LastVerified	The last date and time the checksum of the data was verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
MountPoint	The logical directory used by the BlackPearl gateway to access the pool.
Name	The name for the pool.
PartitionId	The UUID of the pool partition.
PoweredOn	Whether the pool is powered on. Values: TRUE, FALSE
Quiesced	Whether the pool is in a temporarily inactive state. Values: NO, PENDING, YES
ReservedCapacity	The capacity reserved to ensure pool performance.
State	The status of the pool. See State on page 600.
StorageDomain MemberId	The UUID for the storage domain member.
TotalCapacity	The total capacity of the pool including used, reserved and available capacity.

Parameter	Description
Type	The type of pool. Values: NEARLINE (Deep Storage), ONLINE (High Performance)
UsedCapacity	The amount of used capacity on the pool in bytes.
S3Targets	The container for information about all Amazon S3 targets with degraded objects.
S3Target	The container for information about one Amazon S3 target with a degraded object.
AccessKey	The S3 Access Key of the user for the Amazon S3 account.
AutoVerify FrequencyInDays	The frequency at which a full verify of the data on the target is scheduled. If null, no full verify is scheduled.
CloudBucketPrefix	The Amazon S3 target bucket prefix. The gateway adds the prefix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.
CloudBucketSuffix	The Amazon S3 target bucket suffix. The gateway adds the suffix to the BlackPearl bucket name when it replicates the bucket to the Amazon S3 target.
DataPathEndpoint	The IPv4 address or DNS name for the data path of the AWS cloud service.
DefaultRead Preference	When it is preferable to read from the Amazon S3 target rather than the replication source. Values: MINIMUM_LATENCY , AFTER_ONLINE_POOL , AFTER_NEARLINE_POOL , AFTER_NON_EJECTABLE_TAPE , LAST_RESORT , NEVER . See read_preference on page 455.
Https	Whether the BlackPearl gateway uses the HTTPS protocol to setup and replicate data to the target. Values: TRUE , FALSE .
Id	The UUID for the Amazon S3 target instance.
LastFullyVerified	The date and time data on the target was last fully verified in the format YYYY-MM-DDThh:mm:ss.xxxZ.
Name	The name for the Amazon S3 target.

Parameter	Description
NamingMode	Whether files written to the target use BlackPearl (file UUIDs) or Amazon S3 (file names) naming conventions. Values: BLACK_PEARL , AWS_S3
OfflineDataStagingWindowInTb	The maximum size, in TB, of the window available for staging data that is offline (in Glacier) so that it can be read.
PermitGoingOutOfSync	Whether a target is allowed to be out of sync with the source. See permit_going_out_of_sync on page 474. Note: This parameter is deprecated for S3 targets.
ProxyDomain	The domain name for the proxy server.
ProxyHost	The host name or IP address for the proxy server to which the BlackPearl gateway connects.
ProxyPassword	The password used when connecting through the proxy server.
ProxyPort	The proxy server port through which the BlackPearl gateway connects.
ProxyUsername	The username used when connecting through the proxy server.
Quiesced	Whether the Amazon S3 target is in a temporarily inactive state. Values: NO , PENDING , YES
Region	The world region where the Amazon S3 target is physically located. Values: US_EAST_1 , US_WEST_1 , US_WEST_2 , EU_WEST_1 , EU_CENTRAL_1 , AP_SOUTH_1 , AP_SOUTHEAST_1 , AP_SOUTHEAST_2 , AP_NORTHEAST_1 , AP_NORTHEAST_2 , SA_EAST_1 , CN_NORTH_1 , GOV_CLOUD
SecretKey	The secret key associated with the AccessKey.
StagedData ExpirationInDays	The number of days before the pre-staged copy of data can expire.
State	The state of the Amazon S3 target. Values: ONLINE , OFFLINE , LIMITED_ACCESS
Tapes	The container for information about all tapes with degraded objects.

Parameter	Description
Tape	The container for information about the tape containing the degraded object.
AssignedToStorageDomain	Whether the tape is currently assigned to a storage domain. Values: TRUE, FALSE
AvailableRaw Capacity	The amount of unused raw capacity on the tape in bytes.
BarCode	The barcode on the label of the tape cartridge.
BucketId	The UUID for the bucket to which the tape is assigned.
DescriptionFor Identification	The LTFS Volume ID and name, if applicable. This is only provided if the BlackPearl gateway cannot identify the tape.
EjectDate	The date and time that the BlackPearl gateway discovered that the tape was ejected, in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been ejected.
EjectLabel	The user-entered information to assist in the handling of the tape.
EjectLocation	The user-entered information to describe where the ejected tape can be located.
EjectPending	The date and time that the tape was put in the queue to be ejected in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> . If the parameter is empty, the tape has not been queued to be ejected or the eject has started and is no longer cancelable.
FullOfData	Whether the tape is completely full of data. Values: TRUE, FALSE
Id	The UUID for the tape.
LastAccessed	The last date and time the tape was loaded into a tape drive in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
LastCheckpoint	An identifier, internal to the BlackPearl gateway, for verifying the application integrity of the tape.
LastModified	The last date and time the object was modified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .

Parameter	Description
LastVerified	The last date and time the checksum of the data was verified in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartiallyVerified EndOfTape	The last date and time the BlackPearl gateway verified the data on a specified percentage of the tape capacity before the EOD marker in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
PartitionId	The UUID for the partition to which the tape belongs.
PreviousState	The previous status of the tape. See State on page 664.
Role	The role assigned to the tape. Values: Normal, Test
SerialNumber	The manufacturer-assigned serial number for the tape.
State	The status of the tape. See State on page 664.
StorageDomain MemberId	The UUID for the storage domain member.
TakeOwnership Pending	Whether a tape from another BlackPearl gateway is waiting for the current gateway to complete taking ownership. Values: <ul style="list-style-type: none"> • TRUE — The foreign tape was imported when <code>WriteProtected</code> was TRUE, preventing the tape from being claimed by the current gateway. • FALSE — The tape was imported successfully.
TotalRawCapacity	The total raw capacity of the tape in bytes.
Type	The tape format and generation of the tape cartridge. Values: LTO5, LTO6, LTO7, LTO8, LTOM8, LTO9, LTO_CLEANING_TAPE, TS_JC, TS_JD, TS_JE, TS_JK, TS_JL, TS_JM, TS_JV, TS_JY, TS_JZ, TS_CLEANING_TAPE, UNKNOWN, FORBIDDEN
VerifyPending	The priority for the verify requested, or null if a verify has not been requested. The priority determines the resources assigned and the processing order. Values: CRITICAL, URGENT, HIGH, NORMAL, LOW, BACKGROUND
WriteProtected	Whether the tape is write protected. Values: TRUE, FALSE

Example

Sample Request

This request gets information about all suspect objects.

```
GET http[s]://blackpearl-hostname/_rest_/suspect_object/?full_details HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <Object Bucket="bucket2"
```

```
    Id="def4e5f7-f0f7-44b7-9a48-0e0710935071" InCache="false"
```

```
    Latest="true" Length="10" Name="object2" Offset="0"
```

```
    VersionId="7ee8bd7a-b883-4100-ad2b-13440a44f200">
```

```
  <PhysicalPlacement>
```

```
    <AzureTargets/>
```

```
    <Ds3Targets/>
```

```
    <Pools/>
```

```
    <S3Targets/>
```

```
    <Tapes>
```

```
      <Tape>
```

```
        <AssignedToStorageDomain>
```

```
          false
```

```
        </AssignedToStorageDomain>
```

```
        <AvailableRawCapacity>10000</AvailableRawCapacity>
```

```
        <BarCode>
```

```
          d5a78a1f-4ffc-43d1-b302-a565d266d8a3
```

```
        </BarCode>
```

```
        <BucketId/>
```

```
        <DescriptionForIdentification/>
```

```
        <EjectDate/>
```

```
        <EjectLabel/>
```

```
        <EjectLocation/>
```

```
        <EjectPending/>
```

```
        <FullOfData>>false</FullOfData>
```

```
        <Id>c50e8f13-21fe-48e5-b922-3ce4aca94017</Id>
```

```
        <LastAccessed/>
```

```
        <LastCheckpoint/>
```

```
        <LastModified/>
```

```
        <LastVerified/>
```

```

    <PartiallyVerifiedEndOfTape/>
    <PartitionId>
        4a72d5ad-a5b3-431d-8cdf-282c77620f53
    </PartitionId>
    <PreviousState/>
    <Role>NORMAL</Role>
    <SerialNumber/>
    <State>PENDING_INSPECTION</STATE>
    <StorageDomainMemberId>
        78620692-8a4c-4c80-bfb6-02c47eced40d
    </StorageDomainMemberId>
    <TakeOwnershipPending>>false</TakeOwnershipPending>
    <TotalRawCapacity>20000</TotalRawCapacity>
    <Type>LT05</Type>
    <VerifyPending/>
    <WriteProtected>>false</WriteProtected>
  </Tape>
</Tapes>
</PhysicalPlacement>
</Object>
</Data>
<Data>

```

MARK SUSPECT OBJECT PART IN A STORAGE POOL AS DEGRADED

Description

Mark the suspect object part in a storage pool, associated with the specified suspect blob degradation record, as degraded.



CAUTION

If you mark the last copy of a blob as degraded, you are not able to GET or VERIFY that blob.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/suspect_blob_pool/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway marks as degraded all suspect blobs in storage pools.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to specify the suspect blob degradation record to update from suspect to degraded.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
ids	The container for all suspect blob degradation records for which to mark object parts as degraded.	yes
id	The UUID or other unique attribute for the suspect blob degradation record for which to mark object parts as degraded. See Get Suspect Object Parts in Storage Pools on page 1078	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request marks suspect object parts in all storage pools as degraded.

```
PUT http://blackpearl-hostname/_rest_/suspect_blob_pool/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MARK SUSPECT OBJECT PART ON TAPE AS DEGRADED

Description

Mark the suspect object part on tape, associated with the specified suspect blob degradation record, as degraded.



CAUTION

If you mark the last copy of a blob as degraded, you are not able to GET or VERIFY that blob.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/suspect_blob_tape/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway marks as degraded all suspect object parts on tape media.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect blob degradation record to update from suspect to degraded.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
Ids	The container for all suspect blob degradation records for which to mark object parts as degraded.	yes
Id	The UUID or other unique attribute for the suspect blob degradation record for which to mark object parts as degraded. See Get Suspect Object Parts in Storage Pools on page 1078	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request marks suspect object parts on all tape as degraded.

```
PUT http://blackpearl-hostname/_rest_/suspect_blob_tape/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MARK SUSPECT OBJECT PART ON AN AMAZON S3 TARGET AS DEGRADED

Description

Mark the suspect object part on an Amazon S3 target, associated with the specified suspect blob degradation record, as degraded.



CAUTION

If you mark the last copy of a blob as degraded, you are not able to GET or VERIFY that blob.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/suspect_blob_s3_target/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway marks as degraded all suspect object parts on Amazon S3 targets.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect blob degradation record to update from suspect to degraded.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
Ids	The container for all suspect blob degradation records for which to mark object parts as degraded.	yes
Id	The UUID or other unique attribute for the suspect blob degradation record for which to mark object parts as degraded. See Get Suspect Object Parts in Storage Pools on page 1078	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request marks suspect object parts on all Amazon S3 targets as degraded.

```
PUT http://blackpearl-hostname/_rest_/suspect_blob_s3_target/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MARK SUSPECT OBJECT PART ON AN AZURE TARGET AS DEGRADED

Description

Mark the suspect object part on an Azure target, associated with the specified suspect blob degradation record, as degraded.



CAUTION

If you mark the last copy of a blob as degraded, you are not able to GET or VERIFY that blob.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/suspect_blob_azure_target/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway marks as degraded all suspect object parts on Azure targets.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect blob degradation record to update from suspect to degraded.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```


where the parameters are defined as follows:

Parameter	Description	Required
Ids	The container for all suspect blob degradation records for which to mark object parts as degraded.	yes
Id	The UUID or other unique attribute for the suspect blob degradation record for which to mark object parts as degraded. See Get Suspect Object Parts in Storage Pools on page 1078	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request marks suspect object parts on all Azure targets as degraded.

```
PUT http://blackpearl-hostname/_rest_/suspect_blob_azure_target/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

MARK SUSPECT OBJECT PART ON A DS3 TARGET AS DEGRADED

Description

Mark the suspect object part on a BlackPearl target, associated with the specified suspect blob degradation record, as degraded.



CAUTION

If you mark the last copy of a blob as degraded, you are not able to GET or VERIFY that blob.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/suspect_blob_ds3_target/[?force]
```

Request Parameters

Parameter	Description	Required
force	If included, the BlackPearl gateway marks as degraded all suspect object parts on BlackPearl targets.	no

Request Elements

Unless you use the force parameter, an XML payload, formatted as follows, must be sent to describe the suspect blob degradation record to update from suspect to degraded.

```
<ids>
  <id>{string}</id>
  <id>{string}</id>
  <id>{string}</id>
</ids>
```

where the parameters are defined as follows:

Parameter	Description	Required
Ids	The container for all suspect blob degradation records for which to mark object parts as degraded.	yes
Id	The UUID or other unique attribute for the suspect blob degradation record for which to mark object parts as degraded. See Get Suspect Object Parts in Storage Pools on page 1078	yes

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 400: Bad Request (force flag required)

Example

Sample Request

This request marks suspect object parts on all BlackPearl targets as degraded.

```
PUT http://blackpearl-hostname/_rest_/suspect_blob_ds3_target/?force HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

CHAPTER 22 - SYSTEM OPERATIONS

This chapter provides detailed descriptions for system level operations.

Force Feature Key Validation	1120
Get Feature Keys	1121
Get Formal API Contract	1124
Get General System Information	1125
Get Request Handlers	1128
Get System Failures	1130
Reset Instance Identifier	1133
Verify System Health	1138

FORCE FEATURE KEY VALIDATION

Description

Forces a synchronous feature key validation.

Note: Feature keys are validated automatically on a regular basis. Only use this command under the direction of Spectra Logic Technical Support.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/feature_key/
```

Responses

Response Elements

The operation returns status only.

Notable status codes:

- 204: No Content (success)
- 500: Internal Error

Example

Sample Request

This request validates the feature keys on the target BlackPearl gateway.

```
PUT http[s]://blackpearl-hostname/_rest_/feature_key/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 204 No Content
```

GET FEATURE KEYS

Description

Returns a list of all feature keys installed on the BlackPearl gateway.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/feature_key/[?error_message={string}]
[&expiration_date={string}][&key={string}][&last_page][&page_length=
{32-bit integer}][&page_offset={32-bit integer}][&page_start_marker={string}]
```

Request Parameters

Parameter	Description	Required
error_message	The text of the error message.	no
expiration_date	The expiration date of the feature key.	no
key	The option of which the key enables. Values: AWS_S3_CLOUD_OUT, MICROSOFT_AZURE_CLOUD_OUT	no
last_page	If included, only the last page of results is returned.	no

Parameter	Description	Required
page_length	The maximum number of feature keys to list. Default: all items after <code>page_offset</code> .	no
page_offset	The starting point for the first feature key to list. Default: 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> • Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. • If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no

Responses

Response Elements

```

<Data>
  <FeatureKey>
    <CurrentValue>{64-bit integer}</CurrentValue>
    <ErrorMessage>{string}</ErrorMessage>
    <ExpirationDate>{YYYY-MM-DDThh:mm:ss.xxxZ}</ExpirationDate>
    <Id>{string}</Id>
    <Key>AWS_S3_CLOUD_OUT|MICROSOFT_AZURE_CLOUD_OUT</Key>
    <LimitValue>{64-bit integer}</LimitValue>
  </FeatureKey>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
FeatureKey	The container for information about one feature key.

Parameter	Description
CurrentValue	The amount of data replicated by the BlackPearl gateway to the Azure or Amazon S3 target. Note: If you delete data directly from the target, the CurrentValue is not updated until a full Verify Target (see Verify Amazon S3 Target on page 447 , or Verify Azure Target on page 491) completes.
ErrorMessage	A description of the error.
ExpirationDate	The date and time the feature key expires in the form <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
Id	The ID of the feature key.
Key	The type of feature key. Values: AWS_S3_CLOUD_OUT , MICROSOFT_AZURE_CLOUD_OUT
Limit Value	The maximum logical cloud replication capacity licensed in bytes.

Example

Sample Request

This request gets information about all feature keys installed on the BlackPearl gateway.

```
GET http[s]://datapathdnsnameofappliance/_rest_/feature_key/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
<Data>
  <FeatureKey>
    <CurrentValue/>
    <ErrorMessage/>
    <ExpirationDate/>
    <Id>0f6fac07-624d-4ef6-a9e0-cc802ef8a952</Id>
    <Key>AWS_S3_CLOUD_OUT</Key>
    <LimitValue>1099511627776</LimitValue>
  </FeatureKey>
</Data>
```

GET FORMAL API CONTRACT

Description

Provides documentation for each API request in an easy-to-parse format.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/request_handler_contract/
```

Responses

Response Elements

This operation lists all request handlers supported by the DS3 API. The following information is given for each request handler:

Request

- Name of call
- Request classification: amazons3, spectrads3, or internal
- Path including path parameters and their types
- Query parameters specifying if the parameter is required or optional, and types (string, integer, etc.)
- HTTP verb (PUT, GET, etc.)
- List of optional request headers, for example, range or metadata
- Description of the payload if there is one

Response

- Expected status codes
 - Note:** The expected status are NOT exhaustive, nor are the response payload types.
 - What the payload is for a specific status code
 - What query parameters modify the payload
- Description of payload if there is one
- Request handler version

Example

Sample Request

This request gets easily parsed documentation for each DS3 API request.

```
GET http://blackpearl-hostname/_rest_/request_handler_contract/ HTTP/1.1
```

Sample Response

```
<Data>
  <Contract>
    <RequestHandlers>
      <RequestHandler Classification="amazons3"
        Name="com.spectrallogic.s3.server.handler.reqhandler.
amazons3.AbortMultiPartUploadRequestHandler">
        <Request BucketRequirement="REQUIRED"
          HttpVerb="DELETE" ObjectRequirement="REQUIRED">
          <OptionalQueryParams/>
          <RequiredQueryParams>
            <Param Name="UploadId" Type="java.util.UUID"/>
          </RequiredQueryParams>
        </Request>
      <ResponseCodes>
        <ResponseCode>
          <Code>204</Code>
          <ResponseTypes>
            <ResponseType Type="null"/>
          </ResponseTypes>
        </ResponseCode>
      </ResponseCodes>
    </RequestHandler>
    ...
  </RequestHandlers>
</Contract>
</Data>
```

GET GENERAL SYSTEM INFORMATION

Description

Get basic system information, including software version and build information, and the system serial number.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/system_information/
```

Responses

Response Elements

```
<Data>
  <ApiVersion>{string}</ApiVersion>
  <BackendActivated>TRUE|FALSE</BackendActivated>
  <BuildInformation>
    <Branch>{string}</Branch>
    <Revision>{string}</Revision>
    <Version>{string}</Version>
  </BuildInformation>
  <InstanceId>{string}</InstanceId>
  <Now>{64-bit integer}</Now>
  <SerialNumber>{string}</SerialNumber>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
ApiVersion	The version of the DS3 API. The version is in the form X.Y, where X is the MD5 checksum across all request handler major revisions and Y is the MD5 checksum across all request handler full versions (including the minor revision).
BackendActivated	Whether the BlackPearl gateway is allowed to send data to the data path backend (pool or tape partitions). Values: TRUE, FALSE
BuildInformation	A container for the information about the build.
Branch	The branch used to build the API.
Revision	The revision of the software build.

Parameter	Description
Version	The version of the software build.
InstanceID	The UUID for the BlackPearl gateway session.
Now	The number of seconds that have elapsed since January 1, 1970 at 00:00:00 GM (UNIX time).
SerialNumber	The serial number of the BlackPearl gateway.

Example

Sample Request

This request gets general system information.

```
GET http://blackpearl-hostname/_rest_/system_information/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
<ApiVersion>
```

```
5107E9A4021B822F2533C3B619AB1C4C.  
4C2BB2339FC04CDAFB523E1B86F5F2D5
```

```
</ApiVersion>
```

```
<BuildInformation>
```

```
<Branch>//BlueStorm/mainline</Branch>  
<Revision>1099282</Revision>  
<Version>1.0.0</Version>
```

```
</BuildInformation>
```

```
<InstanceId>3c498151-8e6f-4101-acca-7dd9279f0548</InstanceId>
```

```
<Now>1465434924352</Now>
```

```
<SerialNumber>50030480003e6abf</SerialNumber>
```

```
</Data>
```

GET REQUEST HANDLERS

Description

Get information (and self-documentation) for all the request handlers supported by the BlackPearl gateway as well as example usage.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/request_handler/[?full_details]
```

Request Parameters

Parameter	Description	Required
full_details	If included, the response will give additional details, such as sample responses.	no

Responses

Response Elements

This operation lists all request handlers supported by the DS3 API. Request handlers beginning with 'amazons3' are based on the Amazon S3 API. Request handlers beginning with 'spectrads3' are specific to the Spectra BlackPearl Nearline Gateway. The following information is given for each request handler:

- A description of the operation
- Whether the operation is RESTful using the DS3 `_rest_` prefix, or it is an Amazon Web Services operation
- The operation action
- The operation domain
- Required and optional query parameters
- Required component specifiers
- Sample responses

Example

Sample Request

This request gets the list and all self documentation for all request handlers.

```
GET http://blackpearl-hostname/_rest_/request_handler/?full_details HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
```

```
  <RequestHandler
```

```
Name="com.spectrallogic.s3.server.handler.reqhandler.amazons3
  .AbortMultiPartUploadRequestHandler">
```

```
  <Documentation>
```

```
    Abort / cancel a multi-part upload that has been
    initiated, but has not yet been completed or aborted. This
    is an AWS request (see http://docs.aws.amazon.com/
    AmazonS3/latest/API/mpUploadAbort.html for AWS
    documentation).
```

```
  </Documentation>
```

```
  <RequestRequirements>
```

```
    Must be HTTP request type DELETE
```

```
  </RequestRequirements>
```

```
  <RequestRequirements>
```

```
    Must be an AWS-style request
```

```
  </RequestRequirements>
```

```
  <RequestRequirements>
```

```
    Must include an S3 bucket specification
```

```
  </RequestRequirements>
```

```
  <RequestRequirements>
```

```
    Must include an S3 object specification
```

```
  </RequestRequirements>
```

```
  <RequestRequirements>
```

```
    Query Parameters Required: [upload_id], Optional: []
```

```
  </RequestRequirements>
```

```
  <SampleResponses>
```

```
    <HttpRequest>
```

```
      DELETE 'bucket/object' with query parameters
      {UPLOAD_ID=4d59acf1-e630-4dd9-a3a1-643889e3e267} and
      headers {Internal-Request=1}.
```

```
    </HttpRequest>
```

```
  <HttpResponse>
```

```

        with headers {x-amz-request-id=42, RequestHandler-
        Version=1.9D854BF00D3B516D4045D9DBEB4B174A}.
    </HttpResponse>
    <HttpResponseCode>204</HttpResponseCode>
    <HttpResponseType>null</HttpResponseType>
    <Test>
        com.spectrallogic.s3.server.handler.reqhandler.amazons3.
        AbortMultiPartUploadRequestHandler_Test.
        testAbortMultiPartUploadDelegatesRequestToDataPlanner
    </Test>
</SampleResponses>
<SampleUrl>
    http[s]://datapathdnsnameofappliance/{bucket}/
    {object}?upload_id={unique identifier or attribute}
</SampleUrl>
<Version>1.4C9CF642EA41630162015E7F21918975</Version>
</RequestHandler>
...
</Data>

```

GET SYSTEM FAILURES

Description

Get a list of all system failures. Use parameters as selection criteria to return a subset of the list.

Requests

Syntax

```

GET http[s]://{datapathDNSname}/_rest_/system_failure/[?error_message={string}]
[&last_page][&page_length={32-bit integer}][&page_offset={32-bit integer}][&page_
start_marker={string}][&type=RECONCILE_TAPE_ENVIRONMENT_FAILED|RECONCILE_POOL_
ENVIRONMENT_FAILED|SUSPECTED_DATA_LOSS_REQUIRES_USER_CONFIRMATION]

```

Request Parameters

Parameter	Description	Required
error_message 1	The description of an error.	no
last_page	If included, only the last page of results is returned.	no
page_length	The maximum number of failures to list. The default is all items after <code>page_offset</code> .	no
page_offset	The starting point for the first failure to list. The default is 0.	no
page_start_marker	The UUID or other unique attribute for the item just before the first item to list. Notes: <ul style="list-style-type: none"> Specifying both <code>page_offset</code> and <code>page_start_marker</code> causes an error. If neither <code>page_offset</code>, nor <code>page_start_marker</code> are specified, the <code>page_offset</code> default is used. 	no
type	The type of system error message. Values: RECONCILE_TAPE_ENVIRONMENT_FAILED, RECONCILE_POOL_ENVIRONMENT_FAILED, SUSPECTED_DATA_LOSS_REQUIRES_USER_CONFIRMATION Note: See Degradation Operations on page 1051 for more information about handling suspect objects.	no

1) Parameter values can use wild cards (see [Wild Card Syntax on page 30](#)).

Responses

Response Elements

```

<Data>
  <SystemFailure>
    <Date>{YYYY-MM-DDThh:mm:ss.xxxZ}</Date>
    <ErrorMessage>{string}</ErrorMessage>
    <Id>{string}</Id>
    <Type>
      RECONCILE_TAPE_ENVIRONMENT_FAILED|
      RECONCILE_POOL_ENVIRONMENT_FAILED|
      SUSPECTED_DATA_LOSS_REQUIRES_USER_CONFIRMATION
    </Type>
  </SystemFailure>
  ...
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	A container for the response.
SystemFailure	A container for information about a single system failure.
Date	The date and time the error occurred in the format YYYY-MM-DDThh:mm:ss.xxxZ.
ErrorMessage	A description of the error.
Id	The UUID for the error.
Type	The type of tape error message. Values: RECONCILE_TAPE_ENVIRONMENT_FAILED, RECONCILE_POOL_ENVIRONMENT_FAILED, SUSPECTED_DATA_LOSS_REQUIRES_USER_CONFIRMATION

Example

Sample Request

This request retrieves a list of all system failures.

```
GET http://blackpearl-hostname/_rest_/system_failure/ HTTP/1.1
```


Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <SystemFailure>
    <Date>2015-12-07T03:20:39.000Z</Date>
    <ErrorMessage>{Error Message}</ErrorMessage>
    <Id>da981d00-d090-41d8-8921-3f14224dac16</Id>
    <Type>RECONCILE_POOL_ENVIRONMENT_FAILED</Type>
  </SystemFailure>
  ...
</Data>
```

RESET INSTANCE IDENTIFIER

Description

Reset and regenerate the BlackPearl gateway instance identifier. Resetting the instance identifier is only necessary in rare circumstances where there are two branches of an instance running at the same time. One of the two branches must have its instance identifier reset if the two instances are to replicate between each other. The most common occurrence of this is when one instance is initially configured with dual copy where one copy goes on one library and the other copy goes on the other, then a new BlackPearl gateway is added and one library and the new gateway moved to another physical location. In this case, both gateways would start with the same database and each would have the persistence rule and storage domain for the remote library converted to a replication rule. This requires that one or both sites have their instance identifier reset first.

Requests

Syntax

```
PUT http[s]://{datapathDNSname}/_rest_/instance_identifier/
```

Responses

Response Elements

```

<Data>
  <Activated>TRUE | FALSE</Activated>
  <AllowNewJobRequests>TRUE | FALSE</AllowNewJobRequests>
  <AutoActivateTimeoutInMins>
    {32-bit integer}
  </AutoActivateTimeoutInMins>
  <AutoInspect>DEFAULT | MINIMAL | NEVER</AutoInspect>
  <CacheAvailableRetryAfterInSeconds>
    {32-bit integer}
  </CacheAvailableRetryAfterInSeconds>
  <DefaultVerifyDataAfterImport>
    URGENT | HIGH | NORMAL | LOW
  </DefaultVerifyDataAfterImport>
  <DefaultVerifyDataPriorToImport>
    TRUE | FALSE
  </DefaultVerifyDataPriorToImport>
  <Id>{string}</Id>
  <InstanceId>{string}</InstanceId>
  <IomCacheLimitationPercent>{double}</IomCacheLimitationPercent>
  <IomEnabled>TRUE | FALSE</IomEnabled>
  <LastHeartbeat>YYYY-MM-DDThh:mm:ss.xxxZ</LastHeartbeat>
  <MaxAggregatedBlobsPerChunk>
    {32-bit integer}
  </MaxAggregatedBlobsPerChunk>
  <PartiallyVerifyLastPercentOfTape>
    {32-bit integer}
  </PartiallyVerifyLastPercentOfTape>
  <PoolSafetyEnabled>TRUE | FALSE</PoolSafetyEnabled>
  <UnavailableMediaPolicy>
    ALLOW | DISCOURAGED | DISALLOW
  </UnavailableMediaPolicy>
  <UnavailablePoolMaxJobRetryInMins>
    {32-bit integer}
  </UnavailablePoolMaxJobRetryInMins>
  <UnavailableTapePartitionMaxJobRetryInMins>
    {32-bit integer}
  </UnavailableTapePartitionMaxJobRetryInMins>
  <VerifyCheckpointBeforeRead>TRUE | FALSE</VerifyCheckpointBeforeRead>
</Data>

```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
Activated	Whether the BlackPearl gateway is allowed to send to the data path backend (pool or tape partitions). Values: TRUE, FALSE
AllowNewJob Requests	Whether the BlackPearl gateway allows new jobs to be initiated. Values: TRUE, FALSE
AutoActivate TimeoutInMins	The number of minutes allowed for the data planner to take between when it is shut down and when it comes back up, and have the data path back end automatically activate. If the data planner remains shutdown for longer than this number of minutes, the data path backend will not automatically activate. If this parameter is null, the data path backend will never automatically activate.
AutoInspect	Whether tape inspections are automatically scheduled whenever the data planner starts. Values: DEFAULT, MINIMAL, NEVER See auto_inspect on page 1044.
CacheAvailable RetryAfterIn Seconds	The recommended number of seconds for clients to wait between sending Get Job Chunks Ready for Processing (see page 222) requests.
DefaultVerifyDataAfterImport	The priority for verifying the data after import. This determines the resources assigned and the processing order. Values: URGENT, HIGH, NORMAL, LOW
DefaultVerifyData PriorToImport	Whether the data must be verified before the tape is imported. Values: TRUE, FALSE Note: It is recommended to verify data prior to import whenever it is possible that the tapes being imported contain objects with the same name as objects already in the bucket. Without verifying data prior to import, it is possible for the existing object to be replaced with the one being imported, even if the one being imported is partially corrupt and cannot be read.
Id	The UUID for the record. This is only useful to the BlackPearl gateway.

Parameter	Description
InstanceID	The UUID for the BlackPearl gateway session.
IomCacheLimitationPercent	The percentage of the cache, represented as a decimal, that can be used for IOM tasks.
IomEnabled	Whether Intelligent Object Management (IOM) is enabled.
LastHeartbeat	The date and time that the gateway last sent a heartbeat in the format <code>YYYY-MM-DDThh:mm:ss.xxxZ</code> .
MaxAggregatedBlobsPerChunk	The maximum number of blobs that can be aggregated into a single tape task.
PartiallyVerifyLastPercentOfTapes	The percentage of the overall tape capacity before the EOD marker that the BlackPearl gateway verifies during data integrity verification. Verifying a percentage of the tape, rather than the entire tape is useful when you only want to verify the most recent data written to the tape. Values: 1-99 Note: To verify the entire tape, see Verify Tape on page 831 .
PoolSafetyEnabled	Whether the BlackPearl system waits for all data to be transferred the storage pool before returning that the operation is complete. Values: TRUE (default), FALSE
UnavailableMedia Policy	Whether new job requests are allowed to use partitions that are currently unavailable. Values: ALLOW , DISCOURAGE , DISALLOW See unavailable_media_policy on page 1045 .
UnavailablePool MaxJobRetryIn Mins	How long job requests using unavailable pools will retry before being re-chunked or failing if re-chunking cannot solve the problem.
UnavailableTape PartitionMaxJob RetryInMins	How long job requests using unavailable tape partitions will retry before being re-chunked or failing if re-chunking cannot solve the problem.
VerifyCheckpointBeforeRead	When a tape cartridge is loaded into a drive, this parameter controls whether the BlackPearl system verifies the starting checkpoint of the tape before reading data. Values: TRUE (default), FALSE

Example

Sample Request

This request gets information about the data path backend.

```
PUT http://blackpearl-hostname/_rest_/instance_identifier/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>
  <Activated>TRUE</Activated>
  <AllowNewJobRequests>TRUE</AllowNewJobRequests>
  <AutoActivateTimeoutInMins>30</AutoActivateTimeoutInMins>
  <AutoInspect>DEFAULT</AutoInspect>
  <CacheAvailableRetryAfterInSeconds>
    300
  </CacheAvailableRetryAfterInSeconds>
  <DefaultVerifyDataAfterImport/>
  <DefaultVerifyDataPriorToImport>
    TRUE
  </DefaultVerifyDataPriorToImport>
  <Id>7d7601d0-4dba-47a4-8235-8a1ceefe91fa</Id>
  <InstanceId>11c2fc62-075c-4dd6-82b6-9b951638a95d</InstanceId>
  <IomCacheLimitationPercent>.5</IomCacheLimitationPercent>
  <IomEnabled>TRUE</IomEnabled>
  <LastHeartbeat>2016-01-21T18:53:55.000Z</LastHeartbeat>
  <MaxAggregatedBlobsPerChunk>
    20000
  </MaxAggregatedBlobsPerChunk>
  <PartiallyVerifyLastPercentOfTape>
    {15}
  </PartiallyVerifyLastPercentOfTape>
  <PoolSafetyEnabled>TRUE</PoolSafetyEnabled>
  <UnavailableMediaPolicy>DISCOURAGED</UnavailableMediaPolicy>
  <UnavailablePoolMaxJobRetryInMins>
    20
  </UnavailablePoolMaxJobRetryInMins>
  <UnavailableTapePartitionMaxJobRetryInMins>
    20
  </UnavailableTapePartitionMaxJobRetryInMins>
  <VerifyCheckpointBeforeRead>FALSE</VerifyCheckpointBeforeRead>
</Data>
```

VERIFY SYSTEM HEALTH

Description

Verifies that the system appears to be online and functioning normally and that there is adequate free space for the database file system.

Requests

Syntax

```
GET http[s]://{datapathDNSname}/_rest_/system_health/
```

Responses

Response Elements

```
<Data>
  <DatabaseFilesystemFreeSpace>
    NORMAL|NEAR_LOW|LOW|CRITICAL
  </DatabaseFilesystemFreeSpace>
  <MsRequiredToVerifyDataPlannerHealth>
    {32-bit integer}
  </MsRequiredToVerifyDataPlannerHealth>
</Data>
```

where the response elements are defined as follows:

Parameter	Description
Data	The container for the response.
DatabaseFilesystemFreeSpace	<p>The status of the file system free space. Values:</p> <ul style="list-style-type: none"> • NORMAL — The BlackPearl gateway has enough free space for the file system to operate. • NEAR_LOW — Between 10% and 20% of the database file system is free. Purchase additional SSDs or delete objects to increase free space. • LOW — Between 5% and 10% of the database file system is free. Some operations are unavailable until additional SSDs are added. • CRITICAL — Less than 5% of the database file system is free. No operations are available until additional SSDs are added. <p>Note: If you cannot add additional SSDs, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 7)</p>

Parameter	Description
MsRequiredToVerifyDataPlannerHealth	The amount of time, in milliseconds, that it took the BlackPearl gateway to respond. If critical components in the data path between the client and the BlackPearl gateway are unresponsive, an error is generated.

Example

Sample Request

This request checks the system health of the BlackPearl gateway.

```
GET http://blackpearl-hostname/_rest_/system_health/ HTTP/1.1
```

Sample Response

```
HTTP/1.1 200 OK
```

```
<Data>  
  <DatabaseFilesystemFreeSpace>  
    NORMAL  
  </DatabaseFilesystemFreeSpace>  
  <MsRequiredToVerifyDataPlannerHealth>  
    0  
  </MsRequiredToVerifyDataPlannerHealth>  
</Data>
```