

# SPECTRA VAIL OPERATOR GUIDE



www.SpectraLogic.com

# TABLE OF CONTENTS

Table Of Contents	2
Document Information	
Copyright	5
Notices	5
Trademarks	
Contacting Spectra Logic	6
View Capacity Information	7
View Performance Metrics	10
View Vail Bucket Details	12
View Vail Bucket Contents	
View Object Details	
Create an Object Clone	21
Verify an Object Clone	
Delete an Object Clone	
Consolidate Storage	
View Lifecycle Details	
View Reports	
View Spectra Vail Application Messages	
Message Details	
Spectra Vail Application Logs	
Accessing the Technical Support Portal	
Create an Account	
Log Into the Portal	
Opening a Support Ticket	40
Using the Embedded BlackPearl Dashboard	44
View the Status of the BlackPearl System	45
View System Overview	45
View Notifications	
View Jobs	47
View Buckets	
View Pools	
View Volumes	

View Tape Partitions - Main View	51
View Tape Partitions - Tape State View	
View Tape Drives	
View Tape Management	
Dashboard Actions	55
Create a Volume Snapshot	
Export a Tape Cartridge	
Online a Tape Cartridge	56
Verify a Tape Cartridge	
Change Job Priority	

### **DOCUMENT INFORMATION**

Document part number:

• 90990177

Document revision:

• Revision B

Document revision history:

Revision	Date	Description
А	September 2024	Initial Release
В	December 2024	Updated for Vail 3.2.0.

# COPYRIGHT

Copyright © 2022-2024 Spectra Logic Corporation. All rights reserved. This item and the information contained herein are the property of Spectra Logic Corporation.

# NOTICES

Except as expressly stated herein, Spectra Logic Corporation makes its products and associated documentation on an "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, BOTH OF WHICH ARE EXPRESSLY DISCLAIMED. In no event shall Spectra Logic be liable for any loss of profits, loss of business, loss of use or data, interruption of business, or for indirect, special, incidental or consequential damages of any kind, even if Spectra Logic has been advised of the possibility of such damages arising from any defect or error.

Information furnished in this manual is believed to be accurate and reliable. However, no responsibility is assumed by Spectra Logic for its use. Due to continuing research and development, Spectra Logic may revise this publication from time to time without notice, and reserves the right to change any product specification at any time without notice.

### **T**RADEMARKS

ArcticBlue, BlackPearl, BlueScale, RioBroker, Spectra Cube, Spectra Logic, Spectra Vail, Spectra, SpectraGuard, StorCycle, TeraPack, TFinity, and TranScale are registered trademarks of Spectra Logic Corporation. All rights reserved worldwide. All other trademarks and registered trademarks are the property of their respective owners.

### **CONTACTING SPECTRA LOGIC**

To Obtain General Information - Spectra Logic Website: <u>www.spectralogic.com</u>			
United States Headquarters	European Office		
Spectra Logic Corporation 6285 Lookout Road Boulder, CO 80301 USA	Spectra Logic Europe Ltd. 329 Doncastle Road Bracknell Berks, RG12 8PE United Kingdom		
<b>Phone:</b> 1.800.833.1132 or 1.303.449.6400 <b>International:</b> 1.303.449.6400 <b>Fax:</b> 1.303.939.8844	<b>Phone:</b> 44 (0) 870.112.2150 <b>Fax:</b> 44 (0) 870.112.2175		
Spectra Logic Technical Support Technical Support Portal: <u>support.spectralogic.com</u>			
United States and Canada - Phone Toll free US and Canada: 1.800.227.4637 International: 1.303.449.0160	Europe, Middle East, Africa Phone: 44 (0) 870.112.2185 Deutsch Sprechende Kunden Phone: 49 (0) 6028.9796.507 Email: spectralogic@stortrec.de		
Mexico, Central and South America, Asia, Australia, and New Zealand <b>Phone:</b> 1.303.449.0160			
Spectra Logic Sales Website: <u>shop.spectralogic.com</u>			
United States and Canada <b>Phone:</b> 1.800.833.1132 or 1.303.449.6400 <b>Fax:</b> 1.303.939.8844 <b>Email:</b> sales@spectralogic.com	Europe Phone: 44 (0) 870.112.2150 Fax: 44 (0) 870.112.2175 Email: eurosales@spectralogic.com		
To Obtain Documents - Spectra Logic Website: <u>support.spectralogic.com/documentation</u>			

## **VIEW CAPACITY INFORMATION**

The Capacity page allows you to see data capacity information for the Spectra Vail<sup>®</sup> sphere endpoints, each configured location, and cloud storage.

**Note:** Capacity values for BlackPearl storage display zeros until data is written to the storage.

In the Vail management console taskbar, click **Capacity**.

The Capacity screen is separated into three sections:

• The **Sphere Endpoint Physical Capacity** pane displays the combined total of all configured BlackPearl, Vail VM node, and cloud storage endpoints.

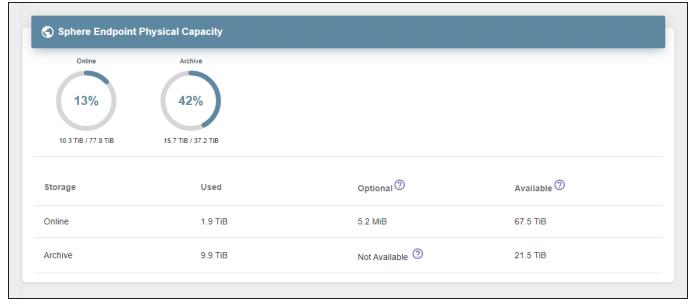


Figure 1 The Sphere Endpoint Physical Capacity pane.

Field	Description
Storage	The type of storage.
Used	The amount of space used for each storage type.
Optional	The amount of space used by the optional clones. There is a delay before this field is populated after creating storage.
Available	The available space used for each storage type. <b>Note:</b> Available capacity does not account for capacity used by file system overhead.

• The **Location Capacity** pane displays data capacity information for each configured location. Buttons in the top left of the pane allow you to view information for each location.

BOULDER	COLUMBUS	LONGMONT				
Online		Archive				
13%	) (	42%				
10.3 TiB / 77.2 Ti	D 453	7 TIB / 37.2 TIB				
10.5 115777.2 11		10707.2110				
Storage	Туре	Storage Class	Partitions	Used	Optional 🕐	Available 🕐
bacula	<b>Туре</b> Таре	Storage Class	Partitions T950-BPS2-S3-ISV2	Used 258.1 GiB	Optional ⑦	Available 🕐
-		-				
bacula	Таре	GLACIER	T950-BPS2-S3-ISV2	258.1 GiB		7.7 TiB
bacula catalogicdpx	Таре Таре	GLACIER	T950-BPS2-S3-ISV2 T950-BPS2-S3-ISV2	258.1 GiB 9.6 TiB		7.7 TIB 6.1 TIB

Figure 2	The Location	Capacity	pane.
----------	--------------	----------	-------

Field	Description
Storage	The name of the location.
Туре	The type of storage used for each location. <b>Tape</b> - Storage on tape media on a BlackPearl system. <b>Volume</b> - Storage on disk volume storage on a BlackPearl system.
Storage Class	The storage class used by the storage location.
Partitions	The BlackPearl data partition(s) that are used for storage.
Used	The amount of space used for each location.
Optional	The amount of space used for optional object clones.
Available	The available space used for each location. BlackPearl storage is over- provisioned, and may be used by multiple storage endpoints. <b>Note:</b> Available capacity does not account for capacity used by file system overhead.

• The **Cloud Capacity** pane displays aggregated data capacity information for each type of storage class used by cloud endpoints.

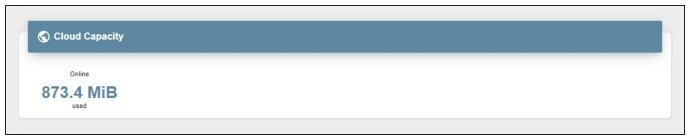


Figure 3 The Cloud Capacity pane.

## **VIEW PERFORMANCE METRICS**

The Performance page displays data transfer and operation performance for the Vail sphere and all configured endpoints. The performance graphs display information in five minute or one day intervals.

In the Vail management console taskbar, click **Performance**.

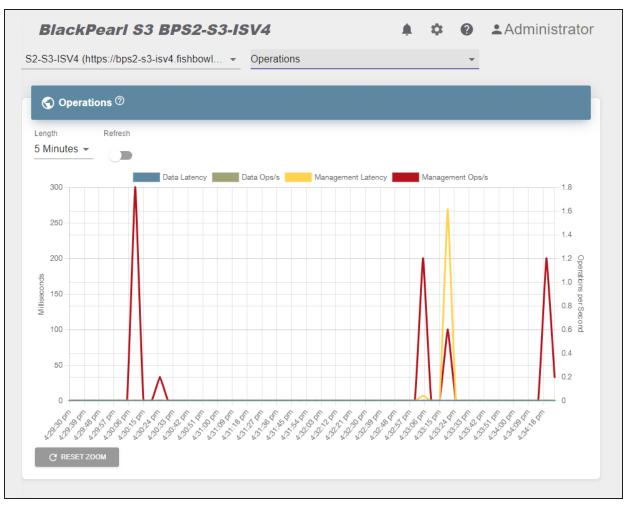


Figure 4 The Performance screen.

- Use the **Endpoint** drop-down menu to select an endpoint for any graph on the Performance screen.
- Use the **Graph Type** drop-down menu to select which graph to display.
- Use the **Length** drop-down menu to select between intervals of five minutes or one day.
- Toggle the **Refresh** slider to refresh the display.

• To display the exact time and performance information, **mouseover** any point on a graph.

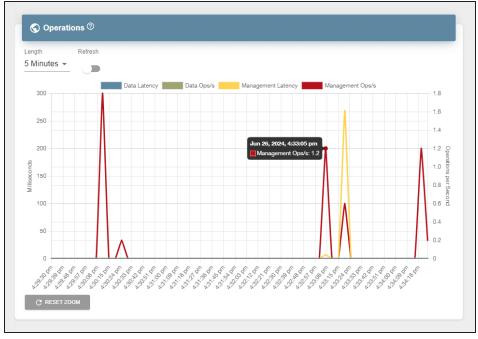


Figure 5 The Operations graph - mouseover.

## VIEW VAIL BUCKET DETAILS

The buckets detail screen displays information about the selected Vail bucket, including bucket properties, ACLs, and policy.

Here is how to view the details of a Vail bucket:

- 1. In the Vail management console taskbar, click **Buckets**.
- **2.** Under the **Buckets** banner, select a bucket row, then click the **View Details** icon on the right side of the pane.
- **Note:** If you click the bucket name instead of the bucket row, the Bucket Contents pane displays. See View Vail Bucket Contents on page 16.

Buckets					
+ CREATE	🖍 edit 🧻 dei	ETE SCAN			
Name	Owner	Linked Storage	Date Created	Lifecycle	
cohesity-no-lc	spectra		Jun 27, 2024 8:21:56 AM		(

Figure 6 The Buckets pane.

**3.** Click **Properties**, **Usage**, **ACLs**, or **Policy** to view the current Vail bucket settings.

cohesity-no-lc		×
PROPERTIES USAGE	ACLS	POLICY
Owner		spectra
Linked Storage		
Versioning		Disabled
Object Locking		Disabled
Encryption		Disabled
Compression		Enabled
Hide Glacier Operations		Disabled
Object Ownership		ACLs Disabled
Lifecycle		
Creation date		Jun 27, 2024 8:21:56 AM
Default Retention Mode		
Default Retention Period		

Figure 7 The Bucket Details - Properties screen.

### • If you click **Properties**...

Field	Description
Owner	The AWS Canonical ID of the Vail bucket owner. By default the Vail sphere administrator is the bucket owner.
Linked Storage	The name of the bucket on the BlackPearl system or AWS cloud storage location to which the Vail bucket is linked, if applicable.
Versioning	Indicates if versioning is enabled or disabled for the Vail bucket.
Object Locking	Indicates if object locking is enabled or disabled for the Vail bucket.
Encryption	Indicates if encryption is enabled or disabled for the Vail bucket
Compression	Indicates if compression is enabled or disabled for the Vail bucket.
Hide Glacier Operations	Indicates if hiding glacier operations is enabled or disabled for the Vail bucket.
Object Ownership	Indicates the type of object ownership configured for the bucket
Lifecycle	The lifecycle associated with the Vail bucket.
Creation date	The date the Vail bucket was created.
Default Retention Mode	Indicates if default retention mode is enabled or disabled for the Vail bucket
Default Retention Period	The retention time period configured for the bucket.

### • If you click **Usage**...

Field	Description
Number of Objects	The number of objects currently in the bucket.
Total Size of Objects	The current size of all objects in the bucket, in GiB.
Average Object Size	The current average size of the objects in the bucket, in GiB.

• If you click **ACLS**....

Field	Description
<b>Block Public ACLs</b> Indicates if the Vail bucket blocks public ACLs.	
<b>Ignore Public ACLs</b> Indicates if the Vail bucket allows public ACLs.	
<b>AWS Canonical ID</b> The ID of a users configured with ACL permissions for the Vail bucke	
Permissions	The ACL permission level for the user.

• If you click **Policy**...

Field	Description
Block Public Policy	Indicates if the Vail bucket blocks or allows public policies.
Restrict Public Buckets	Indicates if the Vail bucket blocks or allows public buckets.
Policy	The AWS policy information entered when the bucket was created displays.

**4.** Click the **X** in the upper-right corner to close the window.

### VIEW VAIL BUCKET CONTENTS

The buckets contents screen displays all objects in a Vail bucket. If versioning is enabled for the bucket, other versions of the current object can also be viewed.

Here is how to view the contents of a Vail bucket:

1. In the Vail management console taskbar, click **Buckets**.

SP	ECTRA.	Spectra Vail <sup>®</sup>	blackpearl-NY	C	\$	🤉 🕶 🌲 🔺 Admir	nistrator
A	Dashboard	Buckets					
	Storage	+ CREATE	🖍 EDIT 📋 DELETE				
Φ	Lifecycles	Name	Owner	Linked Storage	Date Created	Lifecycle	
	Buckets	🗑 kc-versioning	vail.development	vail-linked	Aug 15, 2022 3:03:03 PM	DeleteAfter7Days	ß
¢	Capacity	F kcbucket1	vail.development		Aug 11, 2022 2:50:21 PM	MovetoBP-0Days	ß
ılı	Statistics						

Figure 8 The Buckets screen.

2. Under the **Buckets** banner, click a **bucket name**.

**Note:** You must click the name directly. Clicking the row of the bucket does not display the bucket contents screen.

Find objects	by prefix	Show all versions	
Name	Last Modified	Size	Storage Class
🗐 bar	Feb 05, 2024 1:16:08 PM	10 MiB	GLACIER
🗉 bar2	Feb 05, 2024 1:29:55 PM	10 MiB	GLACIER

Figure 9 The Bucket Contents screen.

• Use the **Find objects by prefix** entry field to filter objects.

• Click **Show All Versions** to display every object version in the Vail bucket. The Last Modified field displays the day and time the object was uploaded.

**Note:** This option only displays if the bucket is configured for versioning.

SP	ECTRA	Vail Sphere			🗢 💶 🌲 🚨 Administrato	r
A	Dashboard	Buckets > movetodisk	bucket1			
I	Storage	Show all versions	;			
¢	Lifecycles	Name	Last Modified	Size	Storage Class	
	Buckets	file1.test	Jan 26, 2021 1:38:26 PM	100 MB	STANDARD	
¢	Capacity	ile1.test	Jan 26, 2021 1:38:01 PM	100 MB	STANDARD	
di.	Statistics	ile1.test	Jan 26, 2021 1:37:13 PM	100 MB	STANDARD	
~	Performance	iii file2.test	Jan 26, 2021 1:38:30 PM	100 MB	STANDARD	
Ê	Reports	iii file2.test	Jan 26, 2021 1:38:05 PM	100 MB	STANDARD	
		iii file2.test	Jan 26, 2021 1:37:16 PM	100 MB	STANDARD	
		ile3.test	Jan 26, 2021 1:38:08 PM	100 MB	STANDARD	
		file3.test	Jan 26, 2021 1:37:20 PM	100 MB	STANDARD	
		file4.test	Jan 26, 2021 1:37:23 PM	100 MB	STANDARD	
		ile5.test	Jan 26, 2021 1:37:26 PM	100 MB	STANDARD	

Figure 10 The Bucket Contents - Show All Versions screen.

**3.** Click **Buckets** in the upper-left corner of the pane to return to the Buckets screen.

### **View Object Details**

On the Bucket Details screen, **click the row** of an object to view its details. By default, the **Properties** pane displays.

10testfiletape		×
PROPERTIES	STORAGE	
Version		7YFM058G2164T3GCSM6GWP8B9G
Size		5.1 KiB
Owner		vail.test
Storage class		STANDARD
Last modified		Sep 02, 2022 1:27:02 PM
Restored until		
Legal hold		
Retention mode		
Retain until		

Figure 11 The Object Details - Properties screen.

Field	Description
Version	The UUID for the current version of the object.
<b>Size</b> The object size on the storage target.	
<b>Owner</b> The AWS account name of the owner of the object.	
Storage Class	The current storage class for the object.
Last Modified	The last modified date of the object.

Field	Description
Restored Until	The timestamp of when the object expires.
Legal Hold	Indicates if the object has a legal hold.
Retention Mode	Indicates the retention mode.
Retain Until	The duration that the object is retained by a legal hold.

Click **Storage** to display the current storage information for the object.

fecycle Status		None	
+ CREATE	VERIFY	DELETE	
Storage	Attributes ⑦	Storage Class	Optional
bpdemobucketto link (1.2)	archived	GLACIER	No

### Figure 12 The Object Details - Storage screen.

Field	Description
Lifecycle Status	Indicates what Lifecycle-based changes are scheduled for the object.
Storage	The name of the storage endpoint where the object is stored. If the object is 256 bytes or less after compression, it is stored in the application database and not on a storage endpoint. The storage field is blank when the object is stored in the database.
Attributes	<b>Archived</b> - The object is archived and must be restored in order to be accessed. <b>Restored</b> - The object is restored can be accessed.
Storage Class	The current storage class for the object.
Optional	If yes, the clone is deleted when space is required.

### **CREATE AN OBJECT CLONE**

If desired, you can delete a clone of an object in a Vail bucket using the Vail management console. You can only create an object clone if the object does not exist on all storage targets. You cannot have multiple clones on the same storage target.

Here is how to create an object clone using the Vail management console:

1. In the Vail management console taskbar, click **Buckets**.

SP	PECTRA	Vail Sphere			🌣 💄 Administrator	
÷	Dashboard	Buckets				
	Storage	+ CREATE	P EDIT			
¢	Lifecycles	Name	Linked Storage	Date Created		
	Buckets	🗑 vail-demo-uk	-	Mar 29, 2019 4:07:54 PM	Z	
¢	Capacity	💡 vail-demo-us	-	Mar 29, 2019 4:07:54 PM	Z	
~	Performance					
ê	Reports					

Figure 13 The Buckets screen.

2. Under the **Buckets** banner, click a **bucket name**.

**Note:** You must click the name directly. Clicking the row of the bucket does not display the bucket contents screen.

suckets > engineering			
Show all versions			
Name	Last Modified	Size	Storage Class
e65gcpqrwlwgo1dnlicg.jpg	Jan 20, 2021 4:29:41 PM	254.6 KB	STANDARD
hjs4fvozsjaytvgfeeir.jpg	Jan 20, 2021 3:18:40 PM	1.3 MB	STANDARD

Figure 14 The Bucket Contents screen.

**3.** If necessary, click **Show All Versions** to display every object version in the Vail bucket. The Last Modified field displays the day and time the object was uploaded.

SP	PECTRA	Vail Sphere			\$ ∎≜ ⊥	Administrator
÷	Dashboard	Buckets > movetodiskbuc	ket1			
	Storage	Show all versions				
¢	Lifecycles	Name	Last Modified	Size	Storage Class	
	Buckets	ile1.test	Jan 26, 2021 1:38:26 PM	100 MB	STANDARD	
¢	Capacity	iii file1.test	Jan 26, 2021 1:38:01 PM	100 MB	STANDARD	
di	Statistics	ile1.test	Jan 26, 2021 1:37:13 PM	100 MB	STANDARD	
~	Performance	file2.test	Jan 26, 2021 1:38:30 PM	100 MB	STANDARD	
Ê	Reports	file2.test	Jan 26, 2021 1:38:05 PM	100 MB	STANDARD	
		ile2.test	Jan 26, 2021 1:37:16 PM	100 MB	STANDARD	
		ile3.test	Jan 26, 2021 1:38:08 PM	100 MB	STANDARD	
		ile3.test	Jan 26, 2021 1:37:20 PM	100 MB	STANDARD	
		ile4.test	Jan 26, 2021 1:37:23 PM	100 MB	STANDARD	
		ile5.test	Jan 26, 2021 1:37:26 PM	100 MB	STANDARD	

Figure 15 The Bucket Contents - Show All Versions screen.

**4. Click** the row of the object you want to clone. The Object Properties window displays.

**5.** Click the **Storage** tab.

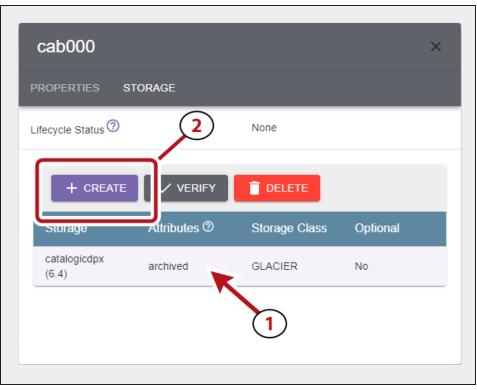


Figure 16 The Object Details - Storage screen.

- **6.** Select the row of the object (**1**), and click **Create** (**2**).
- 7. Using the **Select Storage** drop-down menu, select a location to create the object clone.

Create Object Clone	×
Select Storage	•
	SUBMIT

Figure 17 The Create Object Clone screen.

8. Click **Submit** on the confirmation screen to create an object clone.

### VERIFY AN OBJECT CLONE

Here is how to verify an object clone using the Vail management console:

**1.** In the Vail management console taskbar, click **Buckets**.

SF	PECTRA	Vail Sphere			Administrator
A	Dashboard	Buckets			
	Storage	+ CREATE	T DELETE		
φ	Lifecycles	Name	Linked Storage	Date Created	
	Buckets	🗑 vail-demo-uk	-	Mar 29, 2019 4:07:54 PM	Z
¢	Capacity	🗑 vail-demo-us	-	Mar 29, 2019 4:07:54 PM	
~	Performance				
Ê	Reports				

Figure 18 The Buckets screen.

- **2.** Under the **Buckets** banner, click a **bucket name**.
- **Note:** You must click the name directly. Clicking the row of the bucket does not display the bucket contents screen.

Buckets > engineering			
Show all versions			
Name	Last Modified	Size	Storage Class
e65gcpqrwlwgo1dnlicg.jpg	Jan 20, 2021 4:29:41 PM	254.6 KB	STANDARD
hjs4fvozsjaytvgfeeir.jpg	Jan 20, 2021 3:18:40 PM	1.3 MB	STANDARD

Figure 19 The Bucket Contents screen.

**3.** If necessary, click **Show All Versions** to display every object version in the Vail bucket. The Last Modified field displays the day and time the object was uploaded.

SP	ECTRA	Vail Sphere			🌣 💶 🌲 🚨 Administrator
A	Dashboard	Buckets > movetodiskbu	cket1		
	Storage	Show all versions			
φ	Lifecycles	Name	Last Modified	Size	Storage Class
	Buckets	iii file1.test	Jan 26, 2021 1:38:26 PM	100 MB	STANDARD
¢	Capacity	iii file1.test	Jan 26, 2021 1:38:01 PM	100 MB	STANDARD
di	Statistics	iii file1.test	Jan 26, 2021 1:37:13 PM	100 MB	STANDARD
~	Performance	iii file2.test	Jan 26, 2021 1:38:30 PM	100 MB	STANDARD
Ê	Reports	iiie2.test	Jan 26, 2021 1:38:05 PM	100 MB	STANDARD
		iii file2.test	Jan 26, 2021 1:37:16 PM	100 MB	STANDARD
		iii file3.test	Jan 26, 2021 1:38:08 PM	100 MB	STANDARD
		ile3.test	Jan 26, 2021 1:37:20 PM	100 MB	STANDARD
		iii file4.test	Jan 26, 2021 1:37:23 PM	100 MB	STANDARD
		iii file5.test	Jan 26, 2021 1:37:26 PM	100 MB	STANDARD

Figure 20 The Bucket Contents - Show All Versions screen.

- 4. Click the row of the clone you want to delete. The Object Properties window displays.
- 5. Click Storage.

Spectra - Da	ata-April 2			×
ROPERTIES ST	ORAGE			
ifecycle Status 🕐	2	None		
+ CREATE	VERIFY	DELETE		
Storage	Attributes ⑦	Storage Class	Optional	
bpdemobucketto link (1.2)	archived	GLACIER	No	
		$\smile$		

Figure 21 The Object Details - Storage screen.

- **6.** Select the row of the clone (**1**), and click **Verify** (**2**).
- **7.** Click **Submit** on the confirmation screen to verify the object clone.

### **DELETE AN OBJECT CLONE**

If desired, you can delete a clone of an object in a Vail bucket using the Vail management console. You can only delete an object if another clone of the object exists elsewhere in the Vail sphere. If there is only one instance of the object in the sphere, it cannot be deleted.

Here is how to delete an object clone using the Vail management console:

1. In the Vail management console taskbar, click **Buckets**.

SP	PECTRA	Vail Sphere			🏟 🚨 Administrator
A	Dashboard	Buckets			
	Storage	+ CREATE	EDIT DELETE		
Φ	Lifecycles	Name	Linked Storage	Date Created	
	Buckets	🗑 vail-demo-uk	-	Mar 29, 2019 4:07:54 PM	Z
¢	Capacity	🗑 vail-demo-us	-	Mar 29, 2019 4:07:54 PM	Z
~	Performance				
Ê	Reports				

Figure 22 The Buckets screen.

2. Under the **Buckets** banner, click a **bucket name**.

**Note:** You must click the name directly. Clicking the row of the bucket does not display the bucket contents screen.

Buckets > engineering			
Show all versions			
Name	Last Modified	Size	Storage Class
e65gcpqrwlwgo1dnlicg.jpg	Jan 20, 2021 4:29:41 PM	254.6 KB	STANDARD
hjs4fvozsjaytvgfeeir.jpg	Jan 20, 2021 3:18:40 PM	1.3 MB	STANDARD

Figure 23 The Bucket Contents screen.

**3.** If necessary, click **Show All Versions** to display every object version in the Vail bucket. The Last Modified field displays the day and time the object was uploaded.

SP	ECTRA	Vail Sphere			🌣 💶 🌲 🚨 Administrator
A	Dashboard	Buckets > movetodiskbu	cket1		
	Storage	Show all versions			
φ	Lifecycles	Name	Last Modified	Size	Storage Class
	Buckets	iii file1.test	Jan 26, 2021 1:38:26 PM	100 MB	STANDARD
¢	Capacity	iii file1.test	Jan 26, 2021 1:38:01 PM	100 MB	STANDARD
di	Statistics	iii file1.test	Jan 26, 2021 1:37:13 PM	100 MB	STANDARD
~	Performance	iii file2.test	Jan 26, 2021 1:38:30 PM	100 MB	STANDARD
Ê	Reports	iiie2.test	Jan 26, 2021 1:38:05 PM	100 MB	STANDARD
		iii file2.test	Jan 26, 2021 1:37:16 PM	100 MB	STANDARD
		iii file3.test	Jan 26, 2021 1:38:08 PM	100 MB	STANDARD
		ile3.test	Jan 26, 2021 1:37:20 PM	100 MB	STANDARD
		iii file4.test	Jan 26, 2021 1:37:23 PM	100 MB	STANDARD
		iii file5.test	Jan 26, 2021 1:37:26 PM	100 MB	STANDARD

Figure 24 The Bucket Contents - Show All Versions screen.

- 4. Click the row of the clone you want to delete. The Object Properties window displays.
- 5. Click Storage.

Spectra - Da	Spectra - Data-April 2					
ROPERTIES SI	ORAGE					
ifecycle Status 🕐		None	$\mathbf{)}$			
+ CREATE	VERIFY	DELETE				
Storage	Attributes @	Storage Class	Optional			
bpdemobucketto link (1.2)	archived	GLACIER	No			

Figure 25 The Object Details - Storage screen.

- **6.** Select the row of the clone (**1**), and click **Delete** (**2**).
- **7.** Click **Delete** on the confirmation screen to delete the object clone.

### **CONSOLIDATE STORAGE**

The consolidate storage function performs two tasks, consolidation of data packs and consolidation of metadata packs. Both tasks run when you consolidate storage, you cannot run one task separately.

### **Consolidate Storage Pack**

This option is useful if you have deleted a large number of object clones and want to consolidate the partial data packs. The consolidate storage pack task runs everyday automatically at the scheduled daily processing time. You only need to consolidate storage packs manually if you do not want to wait for the daily processing schedule.

### **Consolidate Metadata Packs**

This option is useful if you have third-party recovery enabled. The third-party recovery option writes daily metadata packs for use in recovering your data outside of the Vail environment. These metadata packs accumulate over time, so the consolidation of metadata packs merge these packs into the smallest number of metadata packs possible.

**Note:** The consolidate storage feature may take a long time depending on the number of objects.

Here is how you consolidate storage:

- **1.** In the Vail management console taskbar, click **Storage**.
- Under the Endpoint Storage or banner, (1) select the row of the storage, and (2) click Consolidate.

़  Endpoint Storage <sup>®</sup>				
+ ADD FEDIT TO DELETE CONSOLIDATE	2			
On-Premise				
Name	Туре	Storage Class	Status	
BPS2-S3-ISV4 (https://bps2-s3-isv4.fishbowl.com)	BlackPearl		ок	
vail-1-1	Таре	GLACIER	ОК	[·

Figure 26 The Endpoint Storage pane.

**3.** On the confirmation screen, click **Consolidate**.

**Note:** The consolidate storage feature may take a long time depending on the number of objects.

# VIEW LIFECYCLE DETAILS

The lifecycles detail screen displays information about the selected lifecycle, including all lifecycle properties and rules.

Here is how to view the details of a lifecycle:

- 1. In the Vail management console taskbar, click Lifecycles.
- **2.** Under the **Lifecycles** banner, click the **View Details** icon on the right side of the pane for the lifecycle which you want to view details.

$\dot{\mathcal{Q}}$ Lifecycles $^{igodot}$			
+ CREATE 🖌 EDIT	T DELETE		
Lifecycle Name	Modified	Number of Rules	
DataToTokyo	Aug 17, 2020 3:07:38 PM	1	⊠ Ihr
			d'

Figure 27 The Lifecycles pane.

**3.** Click **Properties** or **Rules** to view the current lifecycle settings. Click the **X** in the upperright corner to close the window.

• The Properties screen:

test	×
PROPERTIES RULES	
Description	
Upload Expiration	7
Marker Expiration	Enabled
Force Initial Copy	Disabled
Ignore Storage Class	Disabled
Modified	Dec 06, 2024 11:48:10 AM

Figure 28 The Lifecycle Rule Details - Properties screen.

Field	Description
Description	The text, if any, entered in the Description field when creating the bucket.
Upload Expiration	The number of days that must pass before a multipart upload is aborted. When a multipart upload is aborted, it deletes all parts associated with the upload, which prevents remaining incomplete uploads from being stored.
Marker Expiration	Indicates if the Delete Marker Expiration option is <b>Enabled</b> or <b>Disabled</b> .
Force Initial Copy	Indicates if the lifecycle is configured to initially place data as STANDARD storage. Additional clones are created immediately as GLACIER storage.
lgnore Storage Class	Indicates if the lifecycle is configured to ignore the storage class requested in a PUT or upload operation and instead use the configured storage class of the selected storage endpoint.
Modified	The date and time the lifecycle was last modified.

• The Rules screen:

lifecycle1			×	
PROPERTIES	RULES			
Name		Туре	Apply After	
∨ rule1		Placement	1 day	
Destinations				
Count		All		
Storage		vail-1-2		
Delete		Delete unselecte	Delete unselected storage	
Filters				
Versions		Latest		
Include				
Exclude				



Field	Description
Name	The name of the lifecycle.
Туре	The type of lifecycle rule. Values: Clone, Move, Expiration.
Apply After	The number of days before the lifecycle rule is applied.
Destinations - Count	The number of destinations configured for the lifecycle. <b>Values:</b> 1-5, All.
Destinations - Storage	The storage endpoint(s) used by the lifecycle.
Destinations - Delete	Whether or not the lifecycle is configured to delete clones on storage destinations that are not configured in the lifecycle.
Filters - Versions	The versioning setting configured for the lifecycle.
Filters - Include	The text string used to filter objects to include in storage operations.
Filters - Exclude	The text string used to filter objects to exclude from storage operations.

### **VIEW REPORTS**

The Reports screen allows you to view any existing audit logs for the Spectra Vail application, and detailed information for each audit log.

• In the Vail management console taskbar, click **Reports**.

SF	ECTRA	Vail Sphere	پ	Administrator
÷	Dashboard	E Reports		
	Storage	<ul> <li>Audit Log Show audit logs for a given period of time.</li> </ul>		
φ	Lifecycles	Start Date         End Date           User Name         01/19/2021         1         1		
	Buckets	Description User Time		
¢	Capacity	Endpoint SKISLQ4MY6MYX3JFL1TI credentials were added Jan 26, 2021 4	35:19 PI	M 🖸
		Endpoint SKISOH3M5K5UES81SO5G credentials were added Jan 26, 2021 4	33:55 PI	M 🖸
- du	Statistics	Endpoint SKISPO6CGZWBNENRZKQV credentials were added Jan 26, 2021 3	40:19 PI	M 🖸
		Endpoint SKISTUI2RJSLKZN7JXDN credentials were added Jan 26, 2021 3	38:55 PI	M Z
~	Performance	Endpoint SKISG5FARZGYZSJ29RYW credentials were added Jan 26, 2021 2	45:19 PN	M Z
Ê	Reports	Endpoint SKISTRKOOAFOAQDZH4IS credentials were added Jan 26, 2021 2	43:55 PN	M Z
=	Reports	Endpoint SKISLXOIHOL6WIYODPJE credentials were added Jan 26, 2021 1	50:19 PN	M Z
		Endpoint SKIS8CVNKTJDFJKKYSVK credentials were added Jan 26, 2021 1	48:55 PN	M Z
		Endpoint SKISSRGAZA2U9P5CEU43 credentials were added Jan 26, 2021 1	:55:19 F	PM 🖸
		Endpoint SKIS7KUHGARJHFAVU7TT credentials were added Jan 26, 2021 1	::53:55 F	PM 🖸

Figure 30 The Reports screen.

• Use the **User Name**, **Start Date**, or **End Date** menus to refine the list of audit logs.

**Note:** Not all audit logs contain a User Name.

• Click the **View Details** icon on the right end of each audit log row to view details about the audit log.

Audit Log	
PROPERTIES	
Description	create bucket
User	Administrator
Request Path	/sl/api/buckets
Request Method	POST
Request Data	Ð
Request Timestamp	May 27, 2020 11:57:06 AM
Resource ID	bucket1
Resource Name	bucket1
Host IP	ec2-34-216-174-86.us-west- 2.compute.amazonaws.com
Client IP	92.12) JO5.+10 2052
Server	mgmt

Option	Description
Description	The description of the audit log.
User	The user associated with the log.
Request Path	The API path for the log.
Request Method	The method by which the log was generated.
Request Data	The contents of the log.
Request Timestamp	The time and date the log was generated.
Resource ID	The ID of the resource associated with the log.
Resource Name	The name of the resource associated with the log.
Host IP	The IP address of the Vail sphere.
Client IP	The IP address of the BlackPearl system or Vail VM node associated with the log.
Server	The name of the resource within the Vail sphere.

### **VIEW SPECTRA VAIL APPLICATION MESSAGES**

Spectra Vail application messages provide important information about the status and current functionality of the Vail sphere. If desired, you can configured sphere administrators to receive messages automatically.

Here is how to view messages:

In the upper right corner of the management console, click the **bell icon**. The value to the left of the icon indicate the number of unread messages.



Figure 32 The Bell icon.

The messages screen displays. Any unread messages are shown in bold font.

Ê Messa	ges <b>2 3</b>	4 5	
Minimum	Severity - 07/01/2021 End Date Search		P
Severity	Description	Time	
error	Endpoint vail-VM is unavailable.	Jul 07, 2021 9:47:05 AM	Ŀ
info	A software update from 0.9.4.4273 to 0.9.4.4281 has successfully completed for vail-VM "1.1"	Jul 07, 2021 9:00:40 AM	Ŀ
info	A software update from 0.9.4.4273 to 0.9.4.4281 has successfully completed for bp-sydney "2.1"	Jul 07, 2021 8:57:12 AM	Ŀ
info	A software update from 0.9.4.4273 to 0.9.4.4281 has successfully completed for Management Server "0.1"	Jul 07, 2021 8:50:39 AM	Ŀ
info	A logset has been created and is available at s3://spectra-logic-vail-979134292006-us-west-2/clark7/Logs/clark7_0-1_2021-07- 06_23-51-43.zip	Jul 06, 2021 5:51:50 PM	Ĺ
error	Endpoint vail-VM is unavailable.	Jul 01, 2021 1:36:47 PM	Ŀ
error	Endpoint vail-VM is unavailable.	Jul 01, 2021 1:15:19 PM	P

Figure 33 The Messages screen.

- To view message details, on the right end of the message row, click the View Details icon (1).
- You can sort messages using the **Minimum Severity**, **Start Date**, **End Date**, and **Read Status** drop-down menus (2).
- You can search messages for a text string by typing in the **Search** field (**3**).
- To download messages to your local host, in the upper-right corner of the Messages pane, click the **disk icon** (**4**).
- To mark all messages as read, in the upper-right corner of the Messages pane, click the check mark icon (5).

### **Message Details**

In addition to the information on the Messages screen, the message details pane also displays the message key.

×
7YDXM2D3T94XXRHVTY01VA7S7B
i info
A software update from 3.1.0-403 to 3.1.0-590 has successfully completed for BPS2-S3-ISV2 "6.1"
SoftwareUpdateCompleted
Jul 09, 2024 8:15:28 AM

Figure 34 The Message Details screen.

Field	Description
ID	The ID value of the message.
Severity	The severity of the message. <b>Info</b> - an event occurred such as a successful firmware update of the Vail sphere. <b>Warning</b> - An event that may affect data transfers occurred, such as the Vail sphere detects a down-level firmware version. <b>Error</b> - An event that prevents data transfers occurred, such as the nonavailability
Description	of a storage endpoint. The message description.
Кеу	The message key. This value is useful when using the REST API to gather messages.
Time	The date and time the message was generated.

# **SPECTRA VAIL APPLICATION LOGS**

Use the Logs page to generate and download logs for use in troubleshooting problems with the Vail sphere.

In the upper right corner of the Vail management console, click the **gear icon** and select **Logs**.

Spectra	Vail <sup>®</sup> BPS2-S3-ISV2	🌲 🌣 😧 🛎 Administrator
➡ Logs		
	DOWNLOAD	
Туре	Created	Size
Error	Jun 21, 2024 9:26:27 AM	185.9 MiB
Error	Jun 20, 2024 2:42:43 PM	184.7 MiB
Error	Jun 08, 2024 4:04:49 PM	161.6 MIB

Figure 35 The Logs screen.

- To download an existing logset, select the row of the logset and click **Download**.
- To delete an existing logset, select the row of the logset and click **Delete**.

# **ACCESSING THE TECHNICAL SUPPORT PORTAL**

The Spectra Logic<sup>®</sup> Technical Support portal provides access to the Knowledge Base, the current version of Vail software, and additional service and support tools. You can also open or update a support incident and upload log files.

#### **Create an Account**

Access to *User Guides* and compatibility matrices does not require you to create an account. You must create a user account and log in to access *Release Notes*, to download the latest version of Vail software, or to open a support incident.

- **Note:** If you have multiple Spectra Logic products, the serial numbers for all products will be associated with your account. If you do not see the serial numbers for all of your products when you log in, contact Technical Support (see Contacting Spectra Logic).
- 1. Access the Technical Support portal login page at *support.spectralogic.com*.
- 2. On the home page, click **Register Now**.



Figure 36 The Spectra Logic Technical Support portal home page.

- **3.** Enter your registration information. Your account is automatically associated with the serial numbers of all Spectra Logic products owned by your site.
- If you have an invitation, follow the link and enter the invitation code.

Preferred Method of Contact	
Any	
Company Name 1	
Account Type	
Customer	
Serial Number 1	
	Any Company Name 1 Account Type Customer

Figure 37 The Signup screen.

• If you do not have an invitation, enter the requested information to create your account. When you are finished, click **Submit**.

When the account is approved, you receive an email with an initial password. Use your email address and the password provided in the email to log in to your account. After you log in, you can change your password if desired.

#### Log Into the Portal

- 1. Access the Technical Support portal login page at *support.spectralogic.com*.
- **2.** Use your email address and password to log into the Technical Support Portal.

# **OPENING A SUPPORT TICKET**

You can open a support incident using the Spectra Logic Technical Support portal or telephone.

- To contact Spectra Logic Technical Support by telephone, see Contacting Spectra Logic.
- Use the following instructions to open a support incident through the portal:

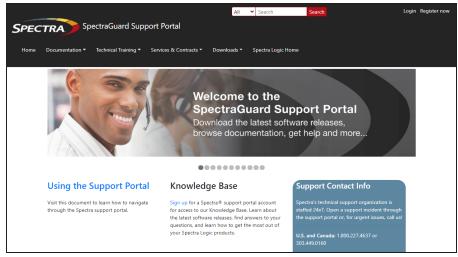


Figure 38 The Spectra Logic Technical Support portal home page.

- **1.** Make notes about the problem, including what happened just before the problem occurred.
- **2.** Gather the following information:
  - Your Spectra Logic customer number
  - Company name, contact name, phone number, and email address
  - The software serial number
  - Type of host system being used
  - Type and version of host operating system being used
  - Type and version of host storage management software being used
- 1. Access the Technical Support portal login page at *support.spectralogic.com*.
- **2.** If necessary, log in to the Support Portal by clicking **Login**, enter your **email address** and **password**, and click **Log in**.
- **Note:** See Create an Account on page 38 if you have not previously created an account on the Technical Support portal.

- **3.** Submit a support incident.
- Use the following instructions to search for help before submitting a ticket, or skip to Submit an Incident Directly on page 43.
  - i. From any page, select **Incident>Incidents & Inventory**.

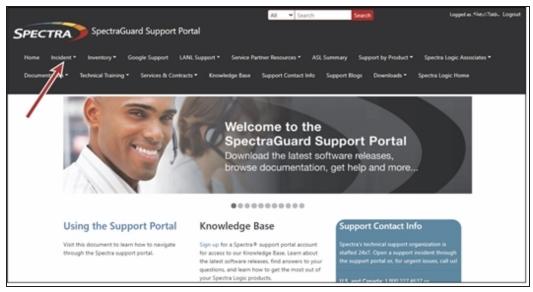


Figure 39 Select Incidents>Incidents & Inventory.

ii. Select Open or View Incidents.

	nts & Inventory
For more i	nformation, visit:
View Inver	ntory
	ils about your Spectra Logic products including service level agreements, support contract expiration dates, and current service keys
Review deta	iew Incidents

Figure 40 Select Open or View Incidents.

iii. In the Search dialog box, enter a term or phrase about your problem (1) and clickSearch (2).

Open or View Incidents									
Nhat ca	an we help you w	ith?							
	Search						Sea	ırch	
rial Num Product	ber:	$\bigcirc$	Status: Active			reated Date: mm/dd/yyyy	2		
🕅 Ехро	rt to Excel								
	Incident N	Product E	Account :	Date Open	Subject E	Description	Modified On	Problem R.	
	294900	TLB0421021 - Spectra T120 Library	Spectra Logic Corporation - Boulder	03-05-2021	Open by ASL parser	This is a test - please disregard. Subject = Manual T120 AutoSupport Log Set for Library TL80421021 on 03-05-2021 11.58.34	4/20/2021 5:05 PM	-	

**Figure 41** Enter a search phrase and click **Search**.

iv. If the search does not provide an answer, click **Open a New Incident**.

Open or View Incidents
What can we help you with?
export Search
search results for <i>export</i>
T120 Import/Export Modes 20200709194431340
1120 Import/Export Modes by the operator's selection. Exporting tapes When a tape is selected by the host software to be exported. Moves' button. Exporting tapes Like the Shared mode, all exports initiated by the host software, 's process for importing and exports initiated by the host software, 's process for importing tapes to be imported or exported in a single moves. As a result, the number of tapes to be imported or exported in a single
Operators cannot import or export media 20201130201216990
User with operator privileges cannot import or export tapes to a partition's storage slots.
Spectra TFinity Library User Guide 20200827222441320 herein. Unpublished rights reserved under the copyright laws of the United States. 11. EXPORT LAW ASSURANCES You may not use or otherwise export or re-export the Software Product except as authorized. In particular, but without limitation, the Software Product may not be exported or re-exported Modules (ICM and RCM)
Next
Open a New Incident

Figure 42 Click Open a New Incident.

**v.** Continue with Step 4 on page 43.

- Submit an Incident Directly
  - i. From any page, select **Inventory>My Inventory**.
  - **ii.** Locate the row of the product for which you want to submit an incident and click **Create Incident**.

			Vie	w Inve	entory				
		ditional inventory deta					erating and soft	ware systems.	
	odel, Serial # or								
	Prod	Product Ni	Account :	SLA :	ASM :	Supp	Servi	Action	:
۵	0906802 - Spectra T680 Library	Fishbowl	Spectra Logic Corporation - Boulder	Next Business Day Replacem	None	31/12/2050	3BB 3HN BB7 DNB 2AZ	Renew Contract Create Incident	Ì
2	1724A05 - Spectra TFinity Library	Training Room	Spectra Logic Corporation - Boulder	Next Business Day Replacem	None	31/12/2050	WXY YCG L4X TT4 HVS	Renew Contract Create Incident	
	1311A06 - Spectra TFinity Library		Spectra Logic Corporation - Boulder	Next Business Day Replacem	None	31/12/2050	FTJ 4DV ZLC YHB Z6B	Renew Contract Create Incident	

Figure 43 Click Create Incident.

- iii. Continue with Step 4 on page 43.
- **4.** On the Create Incident page, enter the requested information providing as much detail as possible. When you are finished, click **Submit**.

Severity *						
		•				
Problem Description *						
				//		
Email addresses to include in correspo	ndence					
Customer *						
Spectra Logic Corporation - Boulder				•		
Product *						
0906802 - Spectra T680 Library				•		
Select files						
Select mes						
DELIVERY Address For Shipping Parts						
6101 Lookout Rd, Boulder, CO 8030	-3580 UNITED STATES					

Figure 44 Enter information about your incident and click Submit.

### USING THE EMBEDDED BLACKPEARL DASHBOARD

The embedded BlackPearl<sup>®</sup> dashboard allows you to quickly view the status of critical aspects of a BlackPearl system in the Vail sphere, and easily perform commonly used functions of the system.

Cache C	apacity	Database Capacity		Disk Capacity	Тар	e Capacity	Active Jobs
1	1%	4%		6%		20%	4 <sub>Jobs</sub>
185.37 Gil	B / 64.53 TIB	25.91 GiB / 720.87 GiB		11.73 Tib / 198.26 Tib	1.3	3 TIB / 6.48 TIB	Active
Notifications							
						🗸 OK 🚺 Inf	o 🛕 Warning 🔇 Error
	Message			Created			
<b></b>	Update succeeded			August 31, 20	023 4:28 pm		Z
•	Activation Key Installed			August 29, 20	023 8:58 am	Rows per page	Z = 5 → 1-2 of 2 < 2
				August 29, 26	023 8:58 am		:: 5 <b>▼</b> 1–2 of 2 <
S A Jobs Change Pri Name	ORITY	Request Type	Priority			A	t: 5 ▼ 1–2 of 2 <
CHANGE PRI Name	ORITY Bucket	Request Type PUT	Priority Normal	August 29, 20 Original Size 181.64 GiB	Amount Transferre 82.87 GiB	A	ctive Canceled Completed Created
😧 CHANGE PRI	ORITY			Original Size	Amount Transferre	A	t: 5 ▼ 1–2 of 2 <
CHANGE PRI Name PUT by 10.5.2.110	ORITY Bucket aic4u05-nfikeep	PUT	Normal	Original Size 181.64 GiB	Amount Transferre 82.87 GIB	A	ctive Canceled Completed Created September 8, 2023 5:07 am
CHANGE PRI  Name  PUT by 10.5.2.110  PUT by 10.5.2.110	ORITY Bucket aic4u05-nfikeep aic4u05-nfidelete	PUT PUT	Normal Normal	Original Size 181.64 GiB 205.56 GiB	Amount Transferre 82.87 GIB 120.51 GIB	A	t: 5 ▼ 1–2 of 2 ctive Canceled Completed Created September 8, 2023 5:07 am September 8, 2023 2:57 am September 7, 2023 9:18 pm
CHANGE PRI  Name  PUT by 10.5.2.110  PUT by 10.5.2.110	ORITY Bucket aic4u05-nfikeep aic4u05-nfidelete	PUT PUT	Normal Normal	Original Size 181.64 GiB 205.56 GiB	Amount Transferre 82.87 GIB 120.51 GIB	d to Cache	t: 5 ▼ 1–2 of 2 ctive Canceled Completed Created September 8, 2023 5:07 am September 8, 2023 2:57 am September 7, 2023 9:18 pm
CHANGE PRI Name PUT by 10.5.2.110 PUT by 10.5.2.110 PUT by 127.0.0.1	ORITY Bucket aic4u05-nfikeep aic4u05-nfidelete	PUT PUT	Normal Normal	Original Size 181.64 GiB 205.56 GiB	Amount Transferre 82.87 GIB 120.51 GIB	d to Cache	t: 5 ▼ 1–2 of 2 ctive Canceled Completed Created September 8, 2023 5:07 am September 8, 2023 2:57 am September 7, 2023 9:18 pm

Figure 45 The Embedded Dashboard.

### VIEW THE STATUS OF THE BLACKPEARL SYSTEM

Use the sections below to view the status of multiple aspects of the BlackPearl system.

### **View System Overview**

The Overview pane provides a quick look at the most critical aspects of the BlackPearl system.

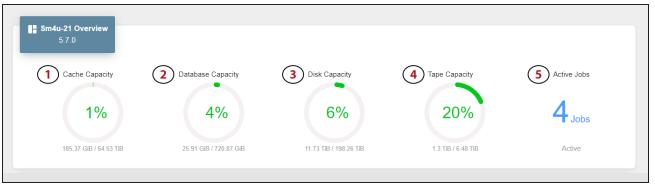
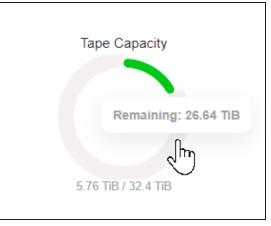


Figure 46 The Overview pane.

- **1.** The BlackPearl system cache capacity and percentage of used cache space.
- 2. The capacity of the BlackPearl system database and percentage of used space.
- **3.** The capacity of all disk-based storage connected to the BlackPearl system and percentage of used space.
- **4.** The capacity of all tape-based storage in the tape library connected to the BlackPearl system and percentage of used space.
- **5.** The number of active jobs running on the BlackPearl system.

Mouse-over the green section of any percentage graph to display the amount of used space, and over the gray section to display the amount of remaining space.



**Figure 47** Mouse-over a graph to view specific details.

#### **View Notifications**

Notifications provide information about errors that occur on the system, caution messages that alert you to issues that may impact your workflow, and informational messages. Additionally, notifications may provide troubleshooting advice to help you resolve issues that may occur.

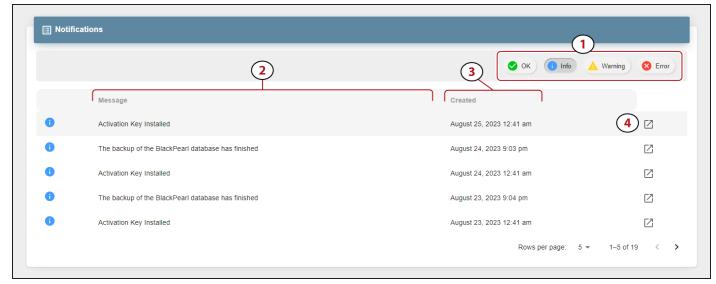


Figure 48 The Notifications pane.

- **1.** Use the **Notification Type** buttons to switch between OK, Info, Warning, and Error messages.
- **2.** Contains a brief description of the notification.
- **3.** Displays the timestamp the notification was generated.
- 4. Click the Details Button to view additional message Details and Troubleshooting Advice.

DETAILS	
Details:	Activation key Remote Support Enabled has been installed.
Troubleshooting Advice:	There is currently no troubleshooting message set for this error. Please contact Spectra Logic if you require assistance

Figure 49 The Notification details dialog box.

#### **View Jobs**

The Jobs pane provides information on each Active, Canceled, or Completed job processed by the BlackPearl system.

CHANGE PRICE	DRITY				6 Active	Canceled Complete
2 Name	3 Bucket	4 Request Type	5 Priority	Original Size	Amount Transferred to Cache	Created 7
PUT by 127.0.0.1	Spectra-BlackPearl-Backup-sm4u-21-50030480018b8b3f	PUT	Normal	6.61 MiB	6.61 MiB	August 24, 2023 9:00 pm
PUT by 127.0.0.1	Spectra-BlackPearl-Backup-sm4u-21-50030480018b8b3f	PUT	Normal	5.25 MiB	5.25 MIB	August 23, 2023 9:00 pm
PUT by 127.0.0.1	Spectra-BlackPearl-Backup-sm4u-21-50030480018b8b3f	PUT	Normal	6.1 MiB	6.1 MiB	August 22, 2023 9:00 pm
PUT by 10.5.2.130	g	PUT	Normal	1000 MiB	1000 MiB	August 22, 2023 12:38 pm
PUT by 127.0.0.1	Spectra-BlackPearl-Backup-sm4u-21-50030480018b8b3f	PUT	Normal	5.4 MiB	5.4 MiB	August 21, 2023 9:00 pm
PUT by 10.5.2.130	SpectraApp1	PUT	Normal	4.35 MiB	4.35 MIB	August 21, 2023 2:46 pm
PUT by 10.5.2.130	d	PUT	Normal	3 GIB	3 GIB	August 21, 2023 2:46 pm
PUT by 10.5.2.130	e	PUT	Normal	25 MiB	25 MIB	August 21, 2023 2:46 pm
PUT by 10.5.2.130	SpectraApp2	PUT	Normal	300 MiB	300 MiB	August 21, 2023 2:46 pm
PUT by 10.5.2.130	с	PUT	Normal	75 MiB	75 MIB	August 21, 2023 2:46 pm

Figure 50 The Jobs pane.

- 1. Use the **Job Type** buttons to switch between Active, Canceled, and Completed jobs.
- **2.** The name of the job includes the job type and the IP address of the job initiator.
- **3.** The bucket used in the PUT or GET operation.
- **4.** The type of job request.
- **5.** The assigned priority of the job.
- **6.** The original size and amount of data transferred to the BlackPearl system cache.
- 7. Displays the timestamp of when the job was initiated.

Use the **Change Priority** button to change the priority of an active job. See Change Job Priority on page 57 for more information.

#### **View Buckets**

+ CREATE			
Name 1	Owner 2	Data Policy 3	Created 4
Spectra-BlackPearl-Backup-sm4u-21-50030480018b8b3f	Administrator	Database Backup	August 21, 2023 9:00 pm
SpectraApp	SpectraApp	Single Copy on Tape	August 21, 2023 2:33 pm
SpectraApp1	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
SpectraApp2	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
a	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
b	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
с	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
d	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
e	SpectraApp	Single Copy on Tape	August 21, 2023 2:45 pm
f	SpectraApp	Single Copy on Tape	August 21, 2023 2:46 pm

The Buckets pane provides information about all buckets configured on the BlackPearl system.

Figure 51 The Buckets pane.

- **1.** Displays the name of the bucket.
- **2.** The bucket owner configured on the BlackPearl system.
- **3.** The data policy used by the bucket.
- **4.** Displays the timestamp of when the bucket was created.

#### **View Pools**

The Pools pane displays information about all disk storage pools configured on the BlackPearl system including dedicated BlackPearl system cache and database pools.

START VERIFICATIO	N			2	
	pool570 🔀 NAS Disk	BlackPearl_Cache	BlackPearl_Dat 🖸 DS3 Disk	ool552 NAS Disk	3
1-	2%	11%	4%	3%	
	954.53 GiB / 42.15 TiB	8.01 TiB / 72.42 TiB	25.91 GiB / 720.87 GiB	2.76 TiB / 82.98 TiB	

Figure 52 The Pools pane.

- **1.** Each percentage graph displays both the used and remaining space for the associated pool.
- **2.** Use the **Filter** button to select which pools to display on the Pools pane.
- **3.** Click the **Details** button to view additional information about a specified pool.

pool552	×
DETAILS	
Verify Status:	Completed on September 1, 2023 10:12 am
Verify Errors:	
pool552	2.76 TIB / 82.98 TIB
vol552 (CIFS)	2.76 TiB / 82.98 TiB

Figure 53 The pool details dialog box.

#### **View Volumes**

The Volumes pane displays information about all volumes configured on the BlackPearl system.

Volumes				
SNAPSHOT				2→ =
	1_	vol552 Poci: pool552 Share Type: CIFS 3% 2.76 TIB / 82.98 TIB	vol570 Pot: pol570 Share Type: CIFS 2% 954.51 GiB / 42.15 TiB	

Figure 54 The Volumes pane.

- **1.** Each percentage graph displays both the used and remaining space for the associated pool.
- **2.** Use the **filter button** to select which pools to display on the Pools pane.

Use the **Snapshot** button to create a snapshot. For more information see Create a Volume Snapshot on page 55.

#### **View Tape Partitions - Main View**

The Tape Partitions pane displays information about the tape partitions configured on the tape library attached to the BlackPearl system. The Tape Partitions pane features both a main view and a tape cartridge state view.

To display the main view, manipulate the slider (**2**) to the left position.

U PUT ON STANDBY		2	
	✓ t680-1_sm4u-21-LTO6		1
LTO5	LTO6	LTO_CLEANING_TAPE	3
1- 22%	0%	N/A	
10.6 TIB / 47.95 TIB	32.74 GiB / 24.09 TiB	0 B / 0 B	

Figure 55 The Tape Partitions pane - main view.

- 1. Each percentage graph displays both the used and remaining space for the associated type and generation of media present in the tape partition. Mouse-over the green section of any percentage graph to display the amount of used space, and over the gray section to display the amount of remaining space.
- **2.** Use the slider to change the display a graph of the current state of each tape cartridge present in the partition.
- **3.** Use the **Filter** button to select which pools to display on the Tape Partitions pane.

#### **View Tape Partitions - Tape State View**

The Tape Partitions pane displays information about the tape partitions configured on the tape library attached to the BlackPearl system. The Tape Partitions pane features both a main view and a tape cartridge state view.

To display the tape cartridge state view, manipulate the slider (2) to the right position.

•t∎ Tape Partitions		2→■ =
	1 t680-1_sm4u-21-LTO6	3

Figure 56 The Tape Partitions pane - main view.

- **1.** The state of all tape cartridges in the partition. Each state combines different generations of tape media if present. Mouse-over any part of the graph to display more detailed information.
- **2.** Use the slider to change the display a graph of the current state of each tape cartridge present in the partition.
- 3. Use the Filter button to select which pools to display on the Tape Partitions pane.

#### **View Tape Drives**

The Tape Drives pane displays information about all tape drives installed in the tape library connected to the BlackPearl system.

E Tape Driv	ves						
() ТАКЕ О	FFLINE						
1	2	3	4	5	6	7	8
Status	Туре	Serial Number	Tape Barcode	Current Task	Cleaning Required	Online	Reserved Task Type
Normal	LTO6	1023003646	519815L5	WriteChunkToTapeTask	No	Yes	ANY
Normal	LTO6	1024003646	503887L5	WriteChunkToTapeTask	No	Yes	ANY

Figure 57 The Tape Drives pane.

- **1.** The current status of the tape drive.
- **2.** The drive type and generation.
- **3.** The drive serial number as assigned by the tape library.
- **4.** The physical barcode of the tape cartridge loaded into the tape drive. This field is blank when no tape is loaded.
- **5.** The current task being performed by the drive. This field is blank when no task is in progress.
- **6.** Indicates if the tape drive requires cleaning.
- **7.** Indicates if the tape drive is online or offline.
- **8.** The reserved task type, if configured. The default setting is Any.

#### **View Tape Management**

The Tape Management pane displays the status of all managed tapes in the tape library connected to the BlackPearl gateway.

L EXPORT		NE TAPE			8	)
				ſ	Search	Search By: Barcode ▼
Barcode 1	State 2	Role 3	Write Protected 4	Bucket 5	Last Verified	6 7
296358L5	Normal	Normal	No	f		
348178L5	Normal	Normal	No			Z
348179L5	Normal	Normal	No			Z
349148L5	Normal	Normal	No			Z
416975L5	Normal	Normal	No	SpectraApp1		

Figure 58 The Tape Management pane.

- **1.** The physical barcode label on the tape cartridge.
- **2.** The current state of the tape cartridge.
- 3. Indicates if the tape is configured for use as a **Normal** or **Test** tape.
- **4.** The physical **Write Protected** status of the tape cartridge.
- **5.** The name of any BlackPearl system bucket(s) present on the tape cartridge.
- 6. Displays the timestamp of the last tape verification.
- **7.** Click the **Details** button to display additional information about the selected tape cartridge.
- **8.** Use the **Search** entry field and **Search By** drop-down menu to find a specific tape cartridge.

See one of the following sections for instructions to export, verify, or online a tape cartridge:

- Export a Tape Cartridge on the next page
- Verify a Tape Cartridge on page 56
- Online a Tape Cartridge on page 56

# **DASHBOARD ACTIONS**

In addition to displaying information about the BlackPearl system, the embedded dashboard allows you to perform the most frequently-used actions as described in the sections below.

#### **Create a Volume Snapshot**

A volume snapshot is an image of a volume's configuration and data makeup as they were when the snapshot was generated. Restoring to a previously created snapshot allows you to go "back in time" and restore the volume to the state it was in when the snapshot was created.

Here is how to create a volume snapshot:

- 1. In the BlackPearl dashboard, navigate to the Volumes pane.
- 2. Select the volume for which you want to create a snapshot.
- 3. Click Snapshot.
- 4. If desired, edit the pre-generated **Snapshot** name.

Create Snapshot	×
Create a snapshot	
Snapshot	
vol552_snap_2023-09-08-14:30:43	
	SUBM

Figure 59 The Export Tape dialog box.

5. Click Submit.

#### **Export a Tape Cartridge**

Exporting a tape cartridge prepares it for physical removal from the attached tape library. In a Spectra Logic tape library, the cartridge is moved from the storage pool to the Entry/Exit pool, before it is physically exported from the library at the library front panel.

- 1. In the BlackPearl system dashboard, navigate to the **Tape Management** pane.
- 2. Select the tape you want to export.
- 3. Click Export.

**4.** If desired, edit the **Export Label** and **Export Location**.

porting this tape will render all data on this tape unavailable for down ill it is imported again.	
	wnload
Export Label Export Location	
e you sure you want to export this tape?	

Figure 60 The Export Tape dialog box.

5. Click Submit.

### **Online a Tape Cartridge**

Setting a tape cartridge to "online" prepares the cartridge for use by the BlackPearl system. This allows the system to use the tape cartridge for data storage operations.

Here is how to online a tape cartridge:

- 1. In the BlackPearl system dashboard, navigate to Tape Management.
- 2. Select a tape in the Offline state.
- 3. Click Online Tape.
- 4. Click Submit.

### Verify a Tape Cartridge

The BlackPearl system can perform a data integrity verification of all data on a selected tape cartridge to confirm it is still viable. While the verification is in progress, client access has priority over the data integrity scan.

Here is how to verify a tape cartridge:

- 1. In the BlackPearl system dashboard, navigate to Tape Management.
- **2. Select** the tape you want to verify.
- 3. Click Verify Tape.
- 4. Click Submit.

### **Change Job Priority**

If desired, you can change the priority of an active job on the BlackPearl system. Here is how you change the priority of a job:

- **1.** In the BlackPearl system dashboard, navigate to the **Jobs** pane.
- 2. If necessary, click **Active** to display the list of active jobs.
- **3. Select** the job for which you want to change priority.
- **4.** Use the **drop-down** menu to select a new priority for the job.
- 5. Click Submit.