



Unified Surveillance Platform (USP) 5.0

User Guide

6-069079-01 Rev B

Quantum

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Overview

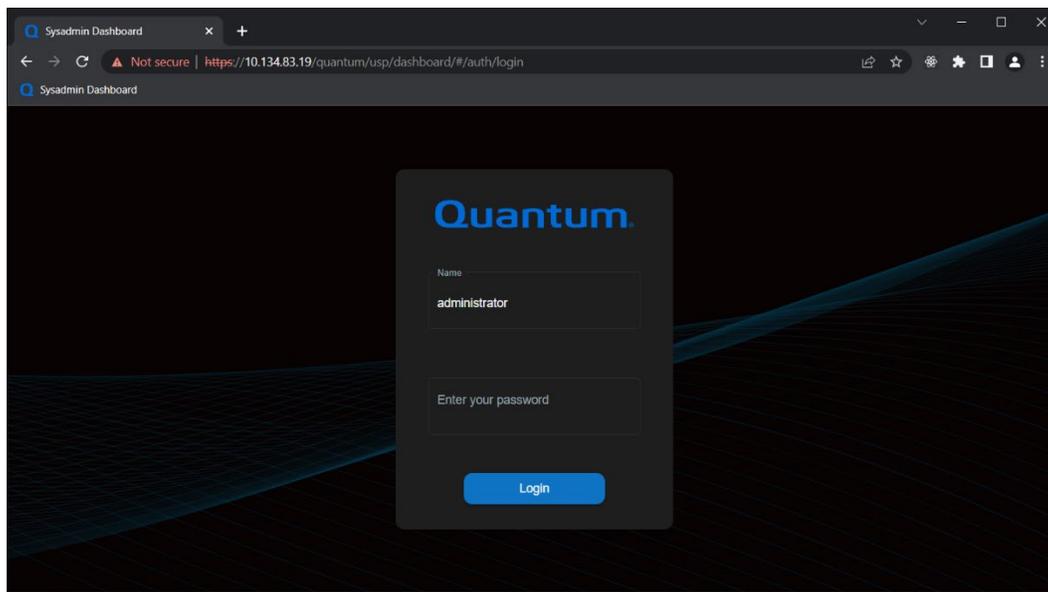
This document outlines how to use Unified Surveillance Platform (USP) 5.0. It will guide you through deploying and configuring instances, as well as viewing the overall performance and health of the USP cluster.

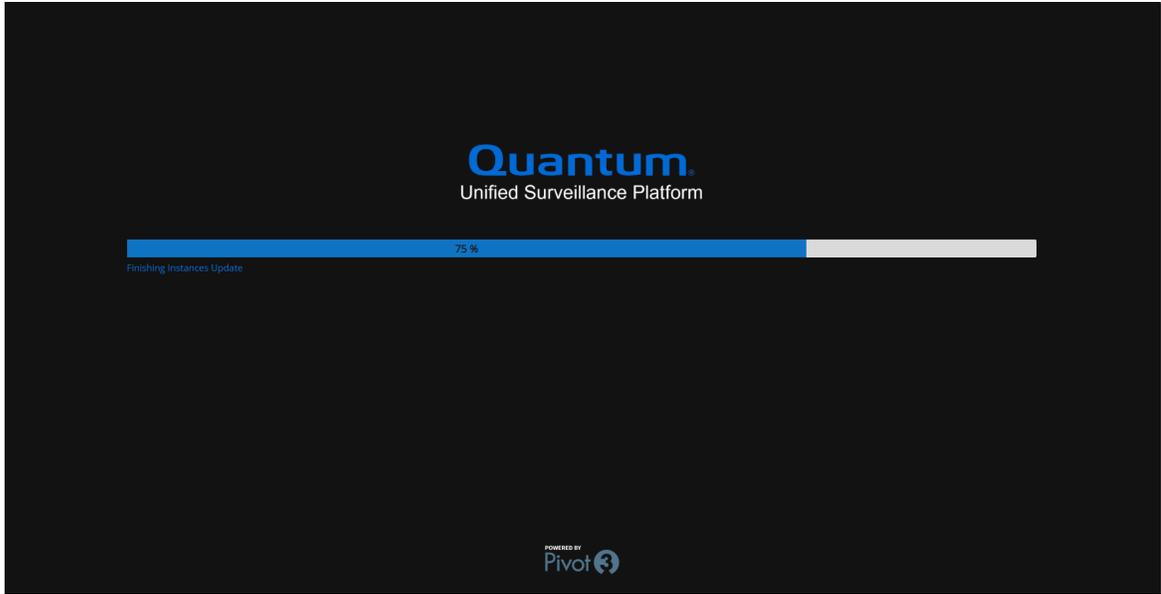
Launching the USP Management Interface

1. Navigate to the USP management interface using the Cluster IP that was configured during installation: https://<cluster_ip>/quantum/usp/dashboard/

NOTE: Quantum recommends that you always use the latest version of Chrome to access the USP Management Application. The web application runs best at 1920*1080 resolution.

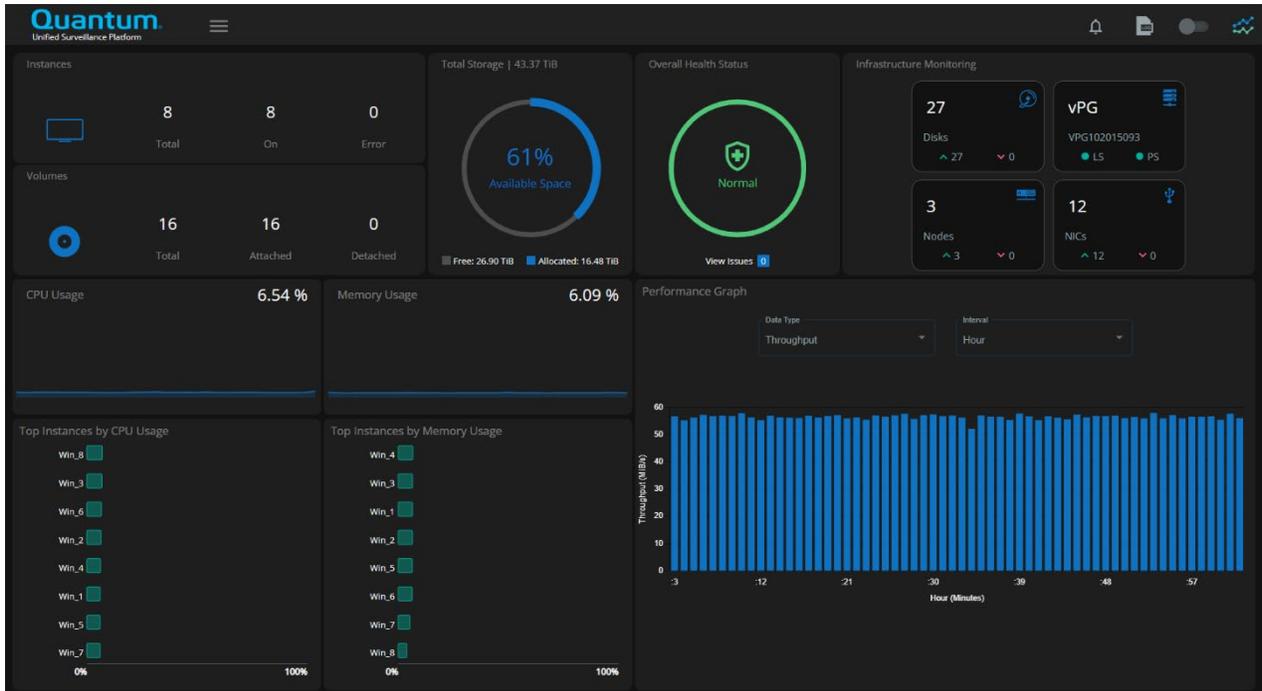
2. Enter the username and password defined during installation.
3. Click on **Login**.





Dashboard Overview

The following section describes the landing dashboard page. You can navigate back to this page from anywhere in the application by either clicking on the **Quantum** logo in the top-left corner or selecting **Overview** from the navigational menu .



Instances

This section of the dashboard lets you quickly see the instance count on the USP cluster. The section illustrates the number of instances that are powered on and how many are in an error state. You can click anywhere in this section on the dashboard to navigate to the Instances page.



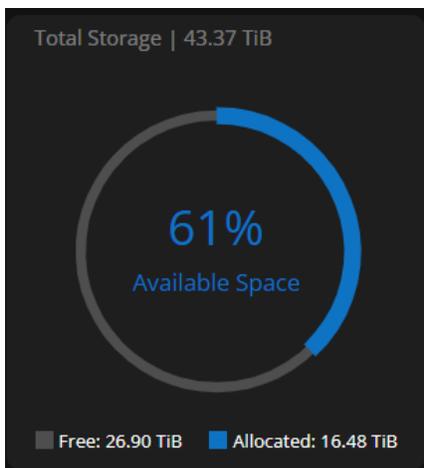
Volumes

The Volumes section of the dashboard displays the total number of volumes on the cluster. It describes the volumes used by your instances and those that are currently detached from any instance.



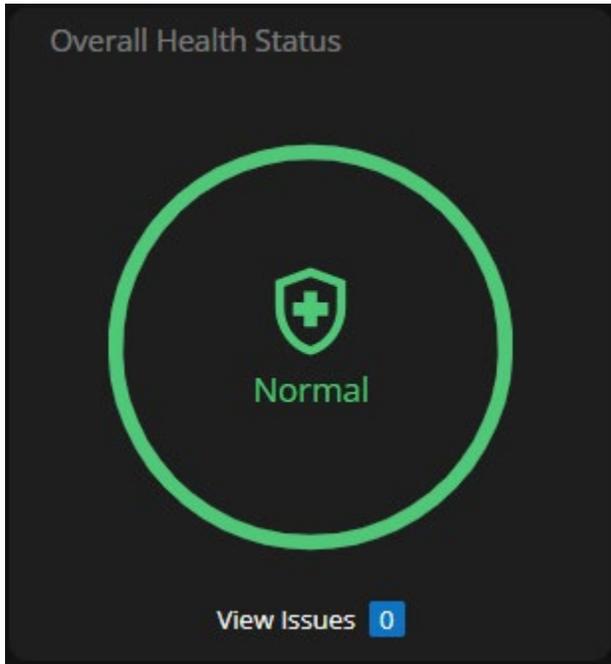
Total Storage

This dashboard section shows the available space on the system. It includes space used by your instances, any volumes attached to those instances, as well as space used to maintain the USP infrastructure.



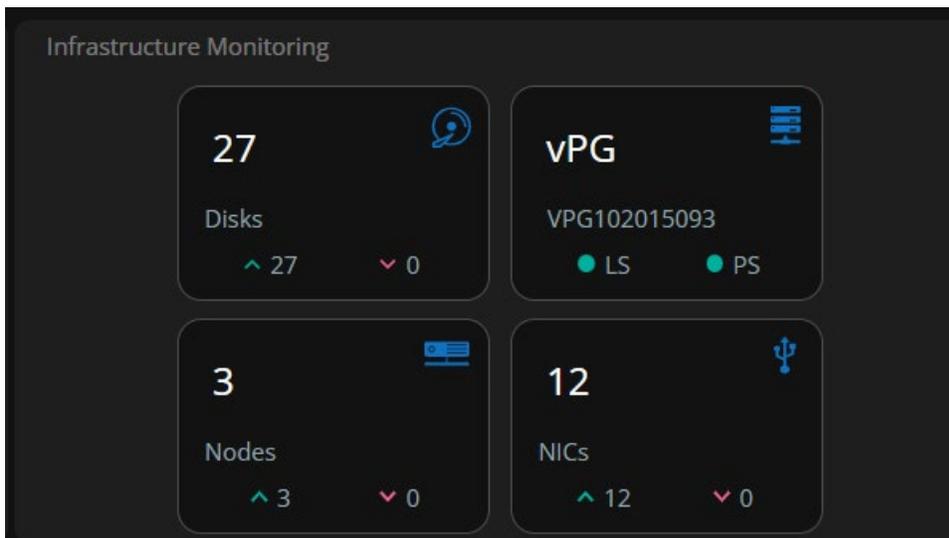
Overall Health Status

The Overall Health Status shows an overview of the health of your system with a counter for issues reported on the system.



Infrastructure Monitoring

Infrastructure Monitoring shows the overall health of your vPG, broken down into sections of hardware with issues.



Disks

This section provides a count of the disks on the system. If there are any disks next to the red down arrow, those disks have failed and should be replaced.

vPG

This section shows your system's backend storage health. Both Logical (volume) and Physical (node) states are displayed, as reported by the storage system.

Nodes

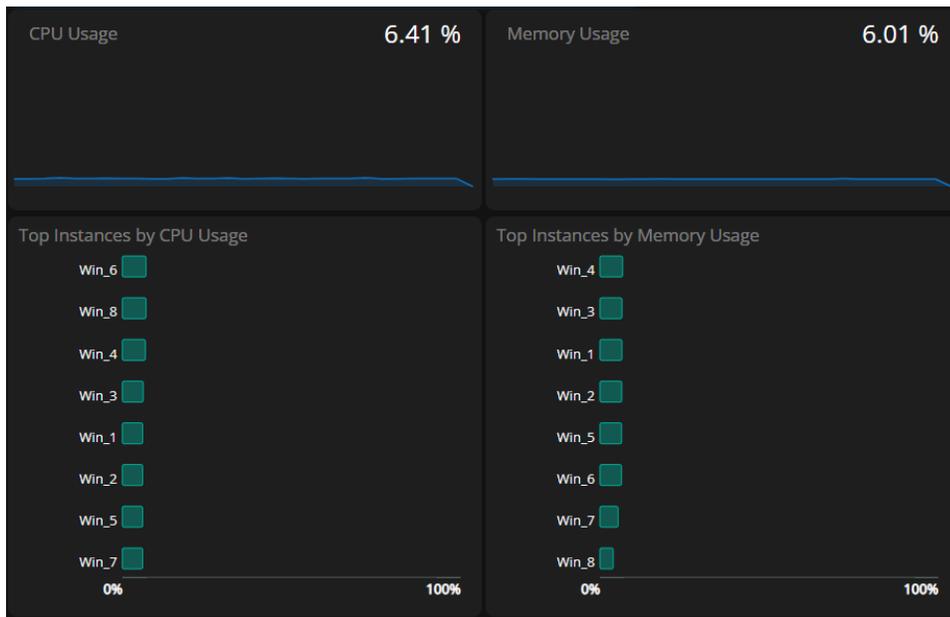
This section shows the cluster health from the OpenStack perspective. If any nodes are not responding to heartbeats, they will be listed next to the red down arrow.

Nics

This section shows the health of the Nics (Network Interface Cards) across the cluster.

Instance Performance Overview

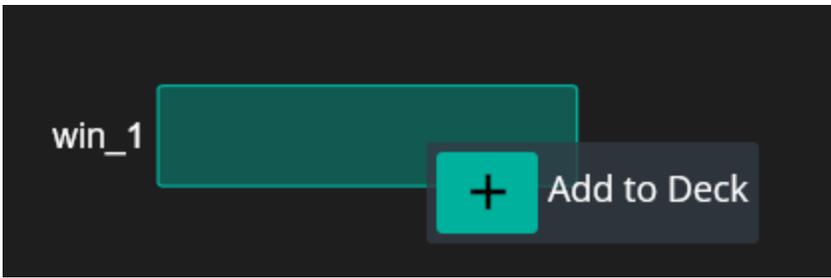
The top portion of this graph shows the average CPU and memory usage for all instances on the cluster. The total disk and network access values are also shown for all instances. The bottom sections show the top 5 instances in each category (CPU, memory, disk access, and network access).



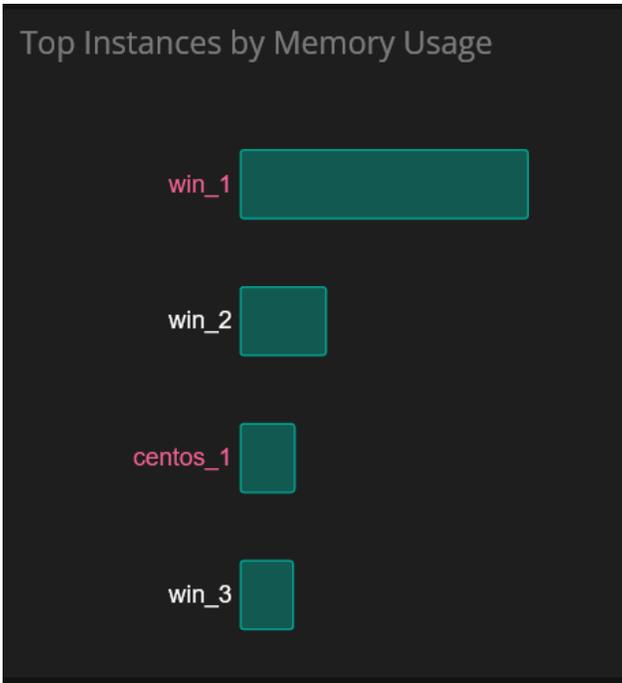
Detailed Instance Performance

This section describes how to view the detailed performance statistics for one or more instances.

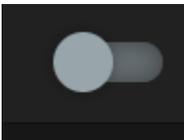
- Right-click on the instance and select **Add to Deck**.



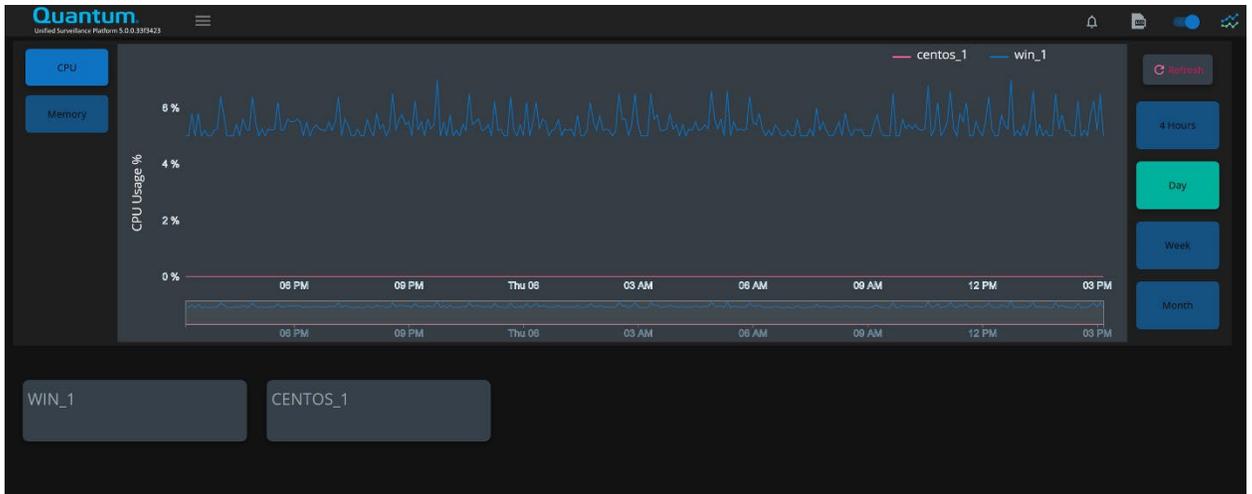
- After the instances have been added to the deck, they will turn red.



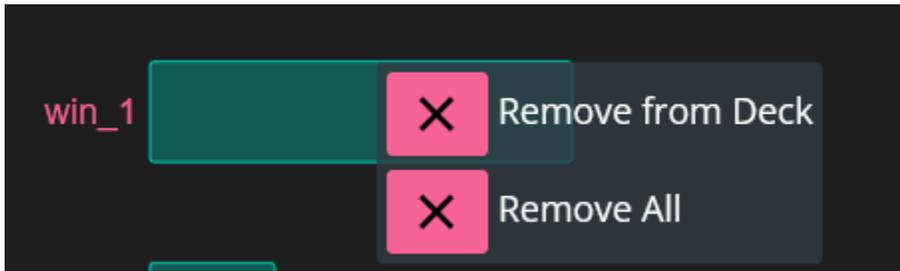
- In the top-right corner of the USP Management Application, click on the slider to display the advanced performance chart.



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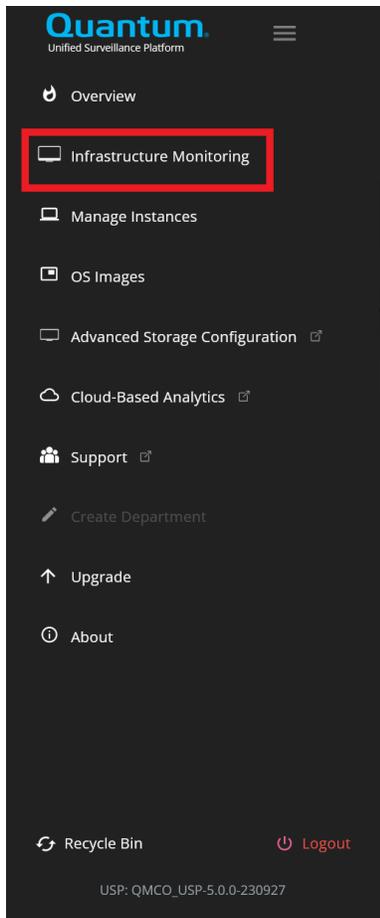


- To remove instances from the deck, first exit the performance chart, right-click on the instance, and then remove it. You can remove a single instance or remove all instances at once.

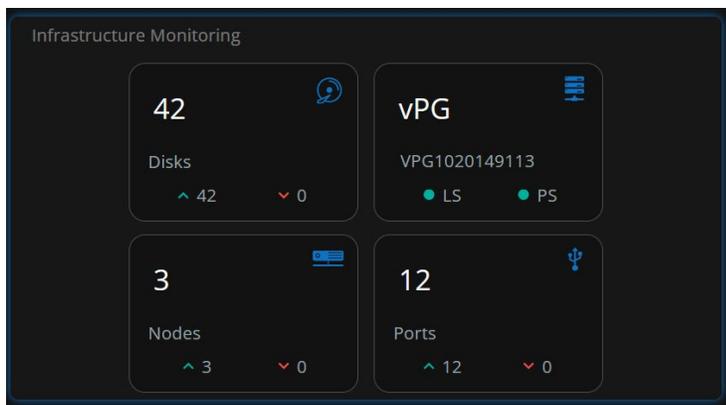


Infrastructure Monitoring

To view the infrastructure monitoring page, click **Infrastructure Monitoring** displayed on the dashboard side menu.

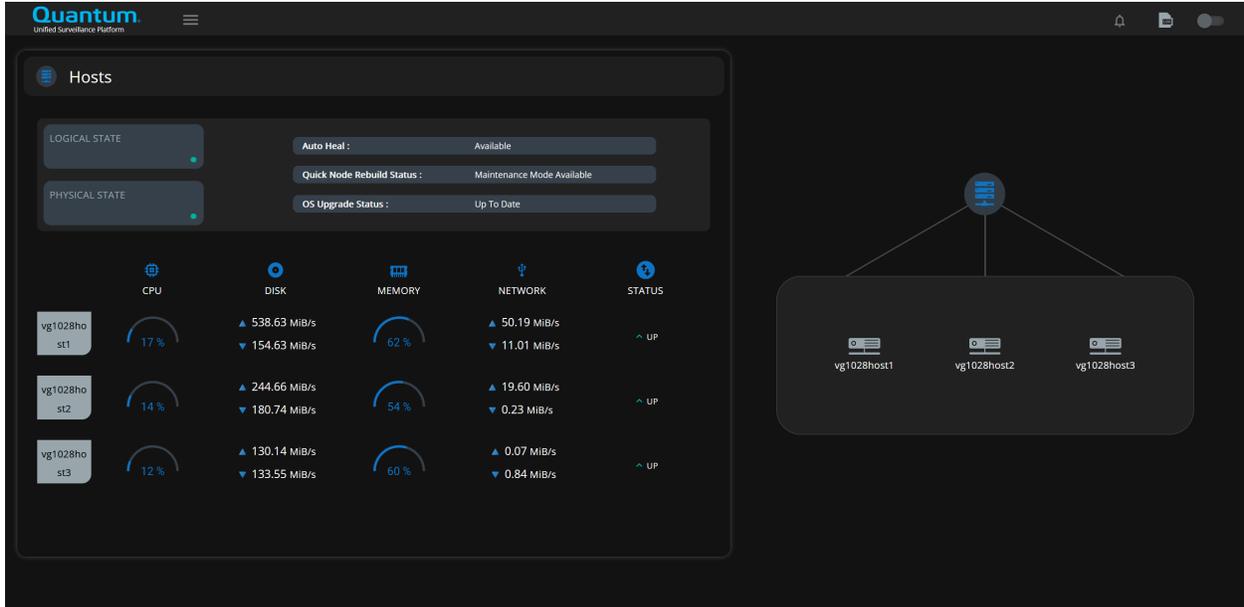


Alternatively, you can launch the Infrastructure Monitoring page by clicking anywhere in the **Infrastructure Monitoring** pane on the dashboard.



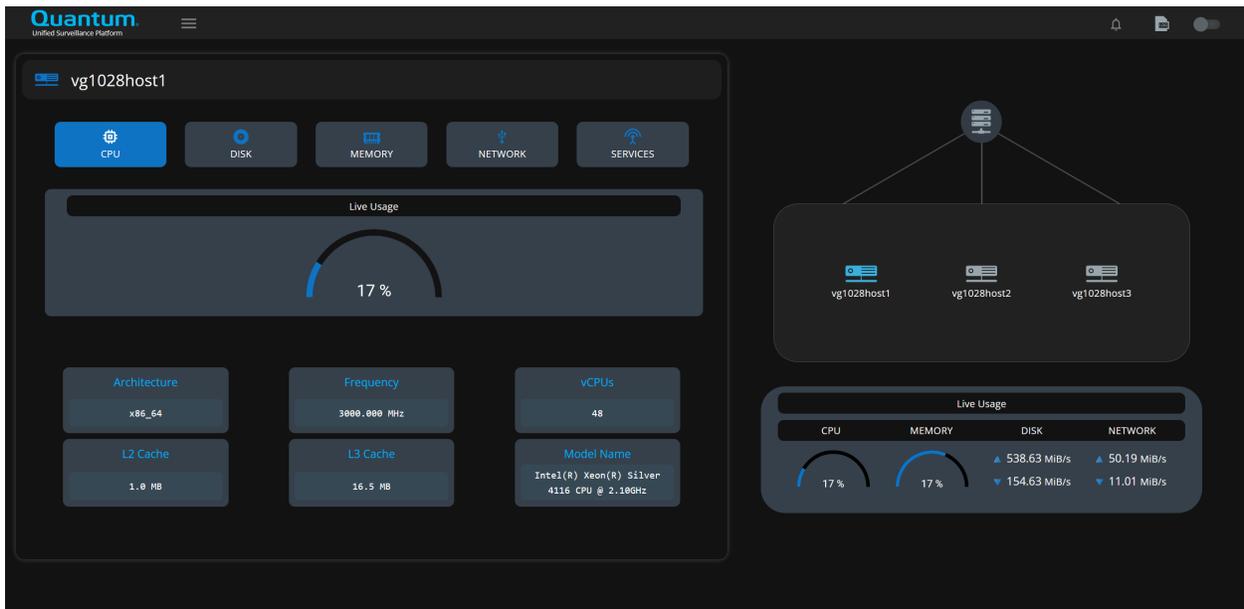
Hosts View

By default, the Hosts view is shown first. It lists the CPU, disk, memory, services, and network usage for each host in the cluster. This view also shows the status of each host. On the right side of the screen, the view shows the specific hardware information for CPU, disk, memory, and status.



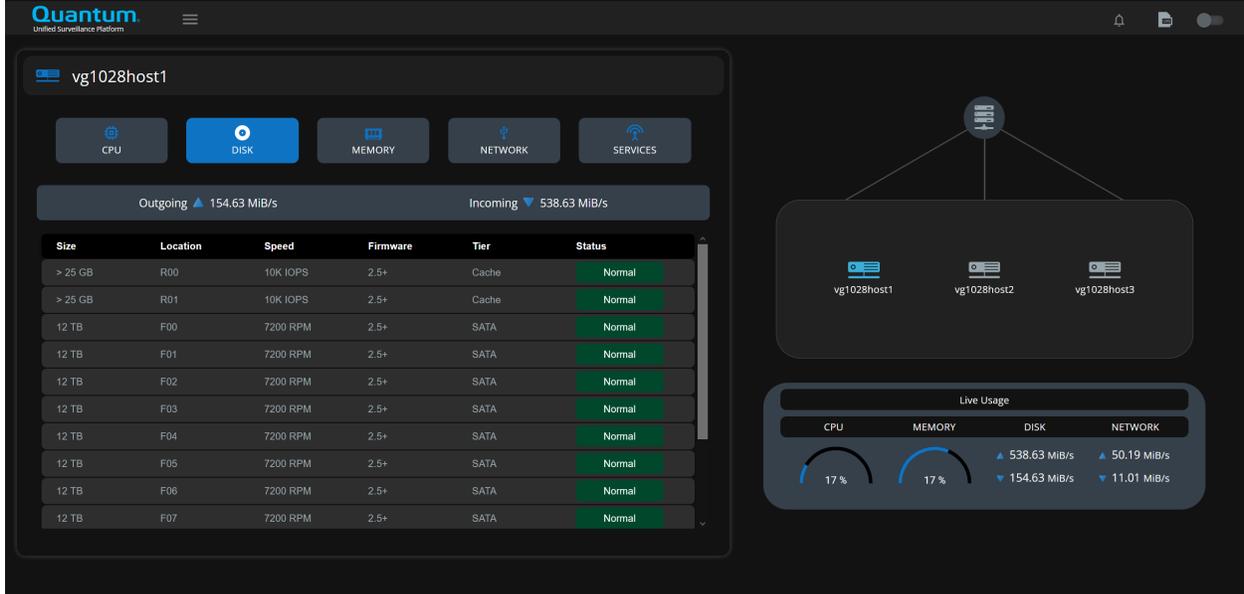
On the right side of the display, select one of the hosts to see its details.

CPU View

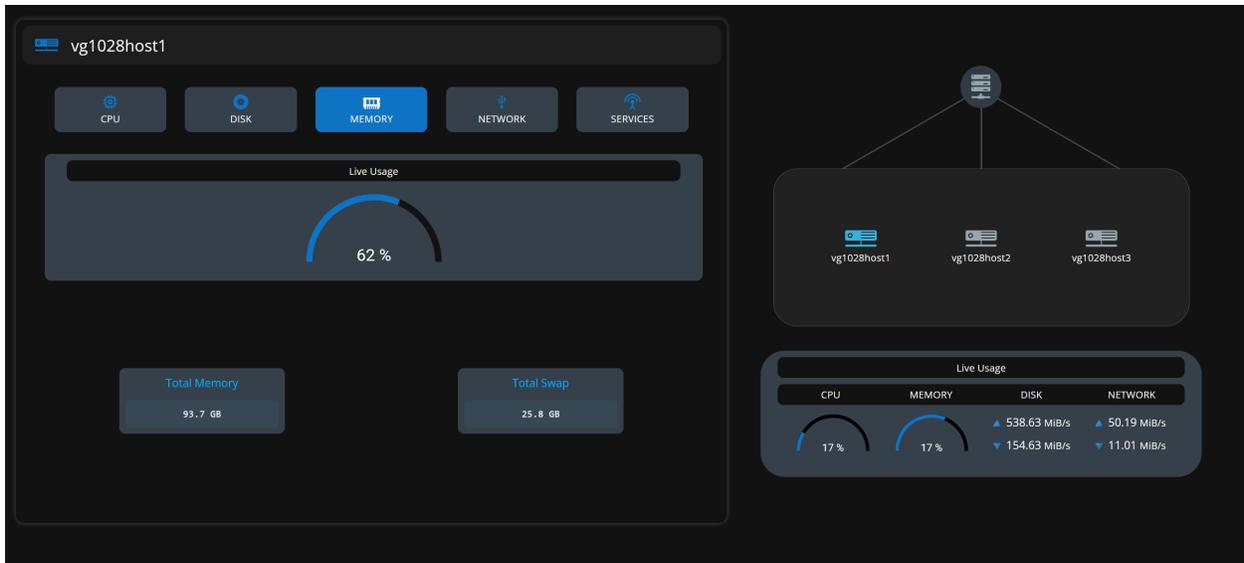


Acuity Storage Disks View

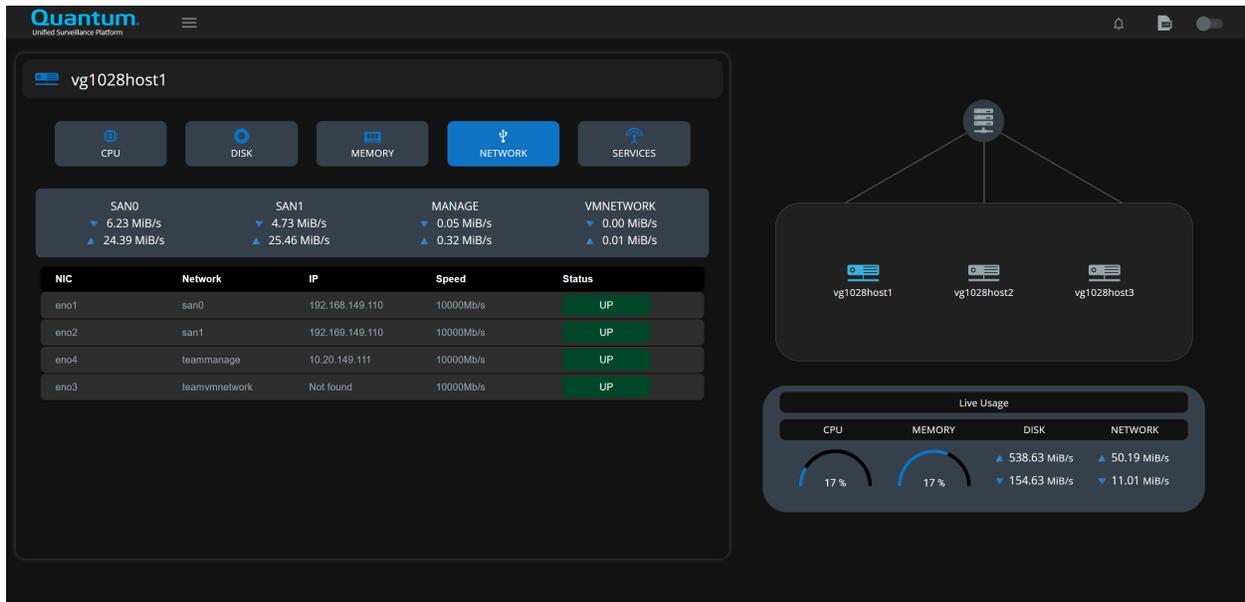
To view the Acuity Storage details, click on the **Storage** icon on the right side of the screen. This shows physical state of the disks in the server and the health of each disk that is passed through to the Acuity Storage VMs.



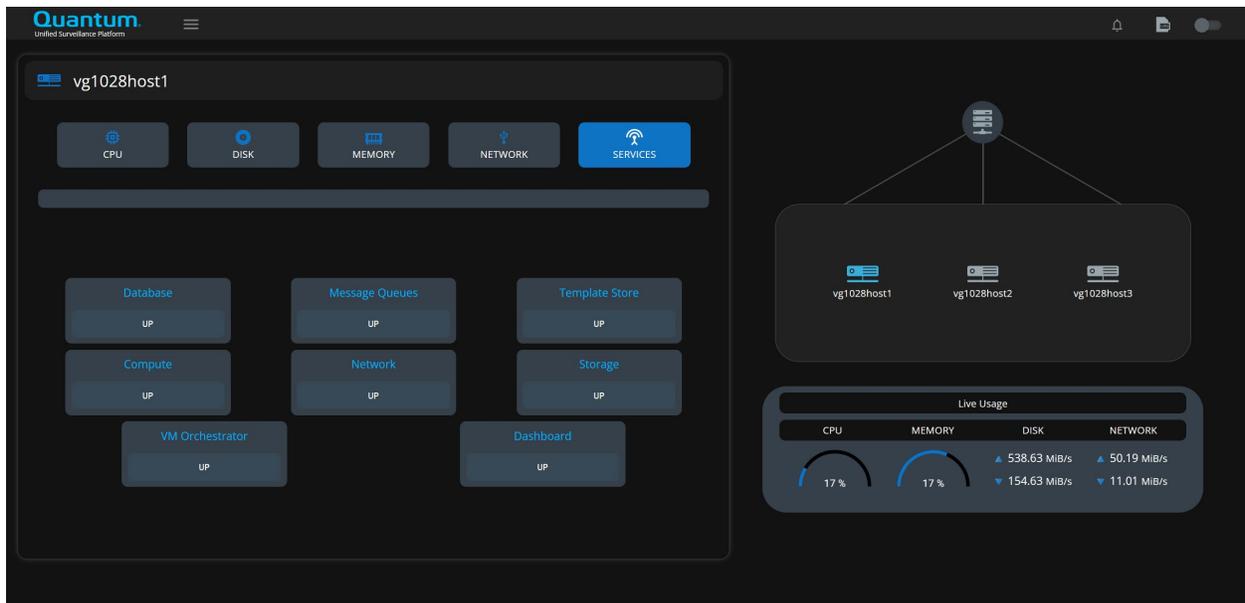
Memory View



Network View



Services View

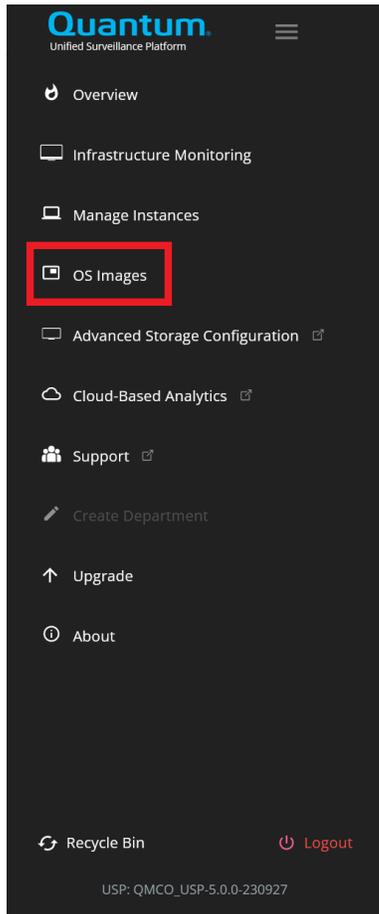


Manage Instances

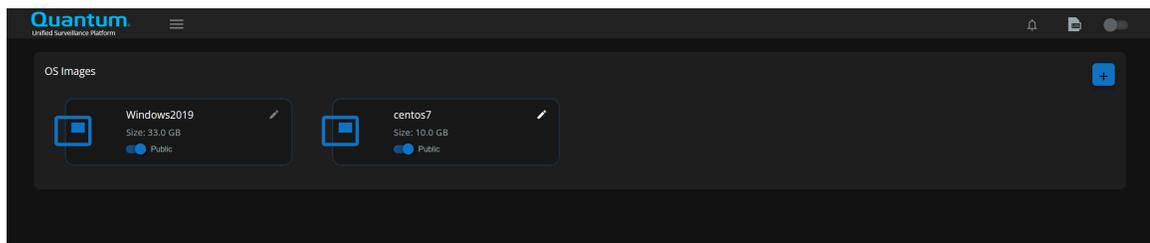
Upload OS Image

To create an instance, you first must upload an instance OS image.

1. To upload an image, select **OS Images** from the navigation menu.



2. Press the plus button in the top right corner.

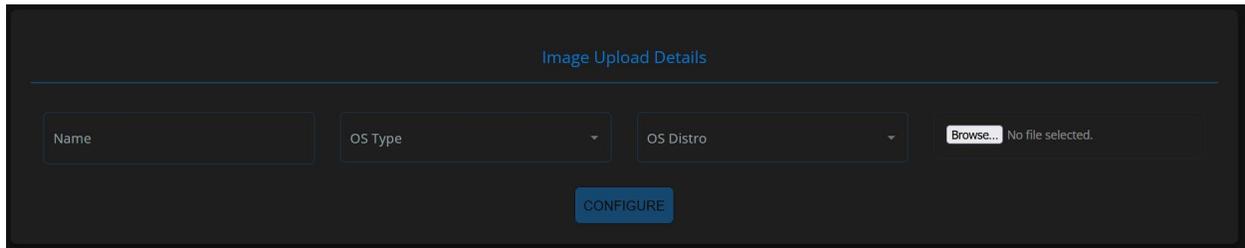


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3. Enter the Name, OS Type, OS Distro, and browse to the raw image on your local file system. Press **CONFIGURE** to upload the image.

NOTE: The amount of time for this operation varies and will depend on the local network configuration.

CRITICAL: Do not refresh the web browser during this operation. Doing so can cause the operation to fail and it will need to be restarted.

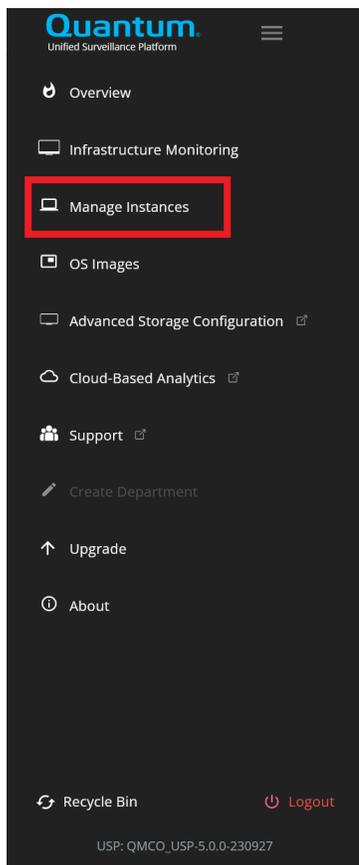


The screenshot shows a dark-themed web interface titled "Image Upload Details". It contains a form with the following elements: a text input field for "Name", a dropdown menu for "OS Type", a dropdown menu for "OS Distro", and a "Browse..." button with the text "No file selected." below it. A blue "CONFIGURE" button is positioned below the form fields.

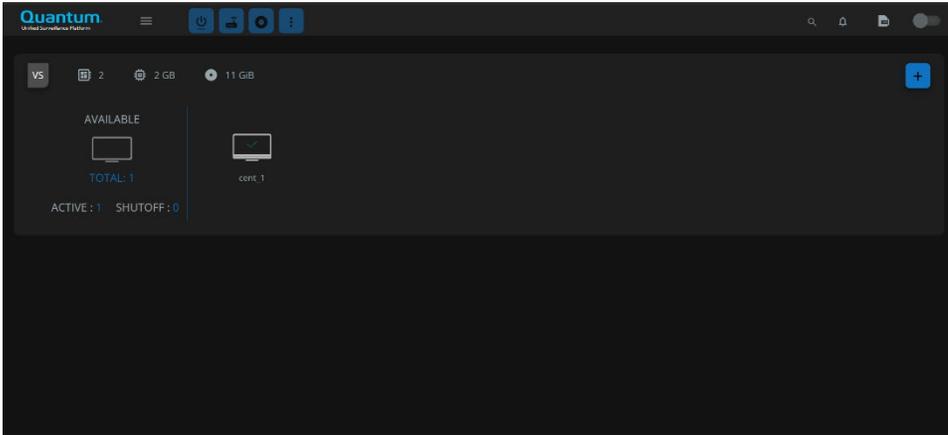
Create Instance

This section describes how to create an Instance.

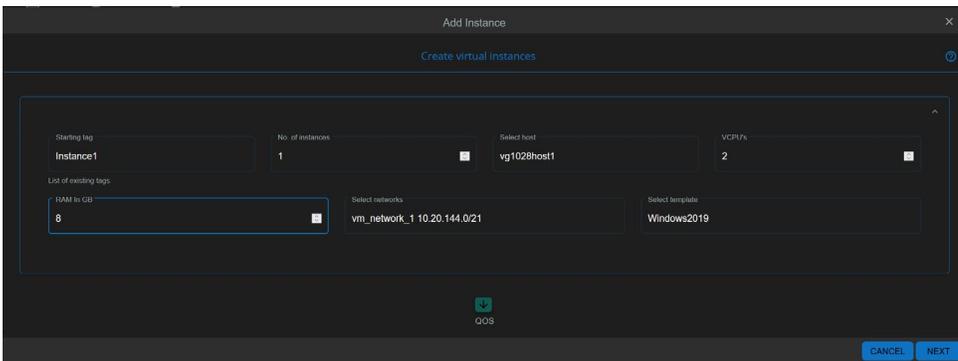
1. Navigate to the Instances view by selecting **Manage Instances** from the left-hand navigation menu.



2. Click on the 'Plus' icon in the top-right corner of the **Manage Instances** pane.



3. Enter the Instance details and press **NEXT**.



CRITICAL: This release only supports creating a single instance at a time. Do not attempt to create more than one instance at a time.

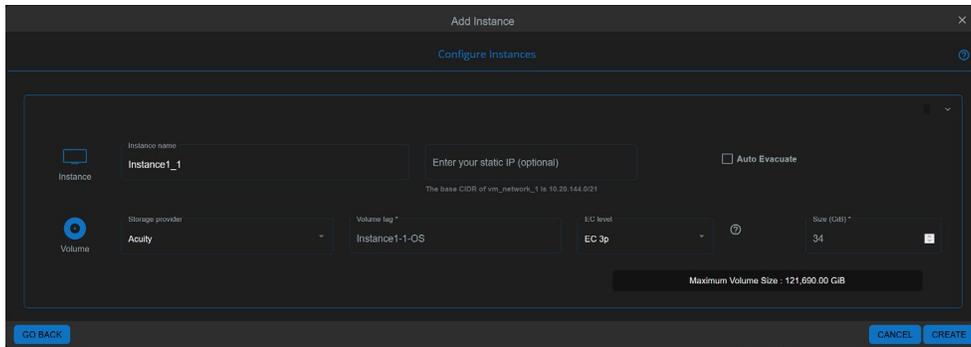
NOTE: Changing the QoS settings is not supported in this release.

4. Confirm the instance name and enter the IP information.
5. Check the **Auto Evacuate** checkbox if you want the instance to be migrated to a new host in case of failure.
6. Enter the Acuity storage details for the boot volume.

NOTE: It is recommended to choose EC 3p for the Instance OS boot volume to get the best protection to performance ratio.

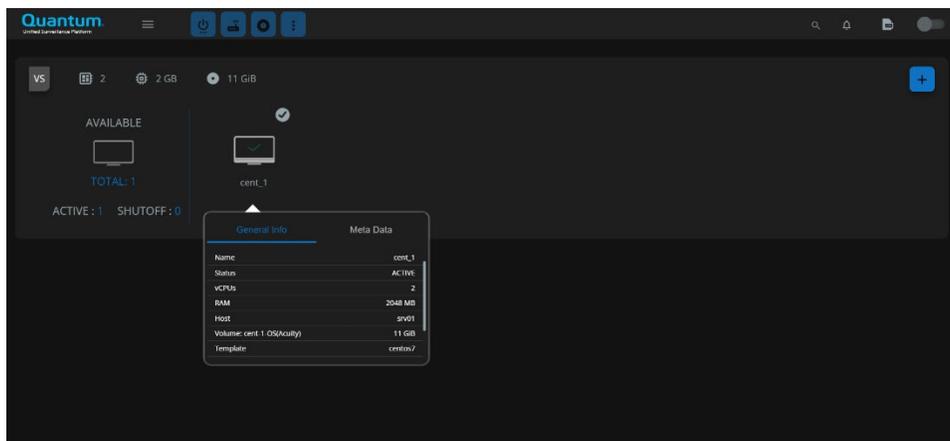
7. Verify the setting and then click on **CREATE** to create the instance.

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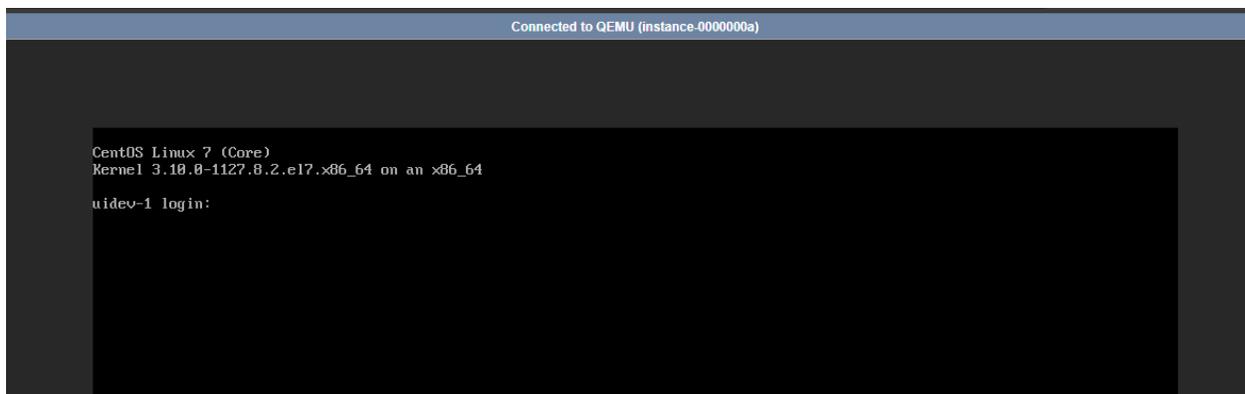
View Instance Details

To view the instance details, hover your mouse over the instance icon in the **Manage Instances** pane.



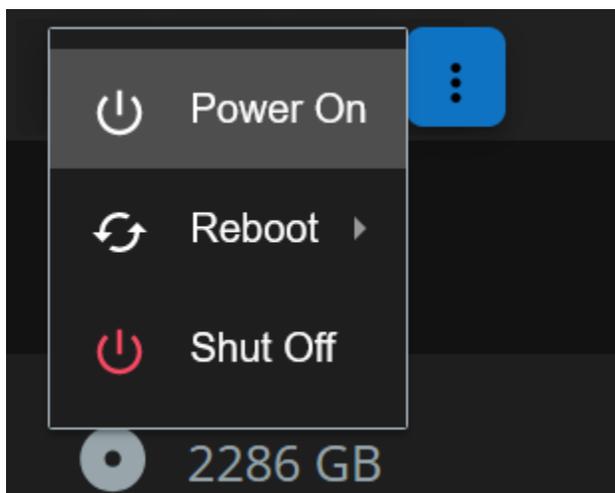
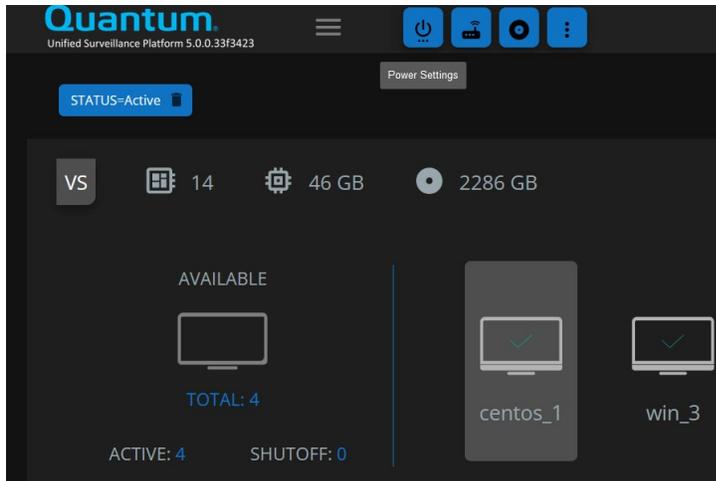
VNC Console

To view the VNC console of an instance, double-click the instance icon in the **Manage Instances** page. This launches a separate browser tab where you can view the VNC console. Make sure to enable popups for the USP Management Application.



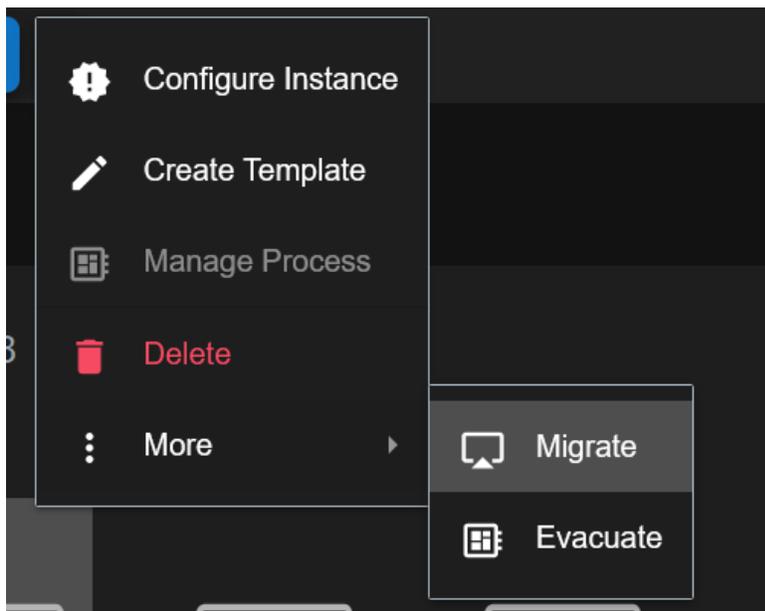
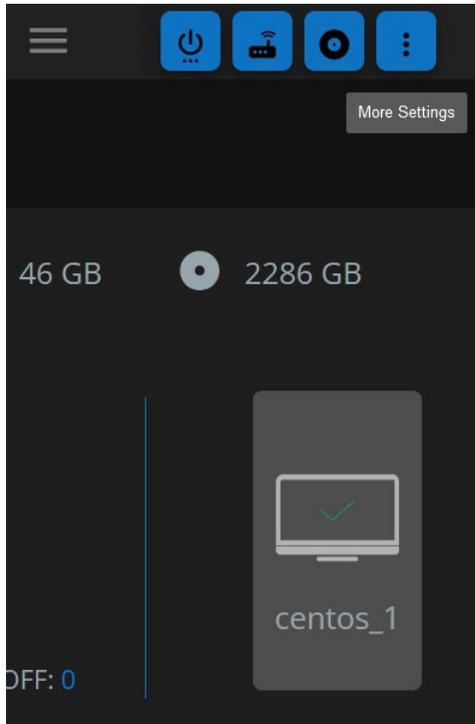
Instance Power Options

Select an instance in the **Manage Instances** section and select the **Power Settings** icon in the top of the web application to perform power options on an instance.



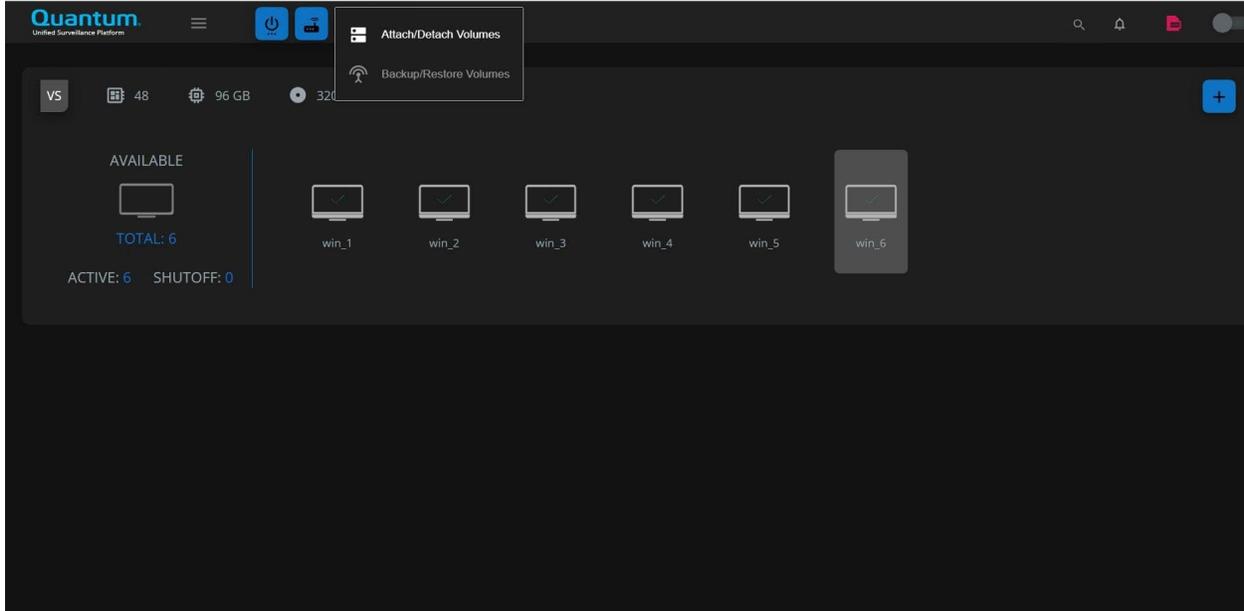
Live Migration

To move an instance to a different host, navigate to the **Management Instances** pane, click on the More Settings icon at the top, and then select **More > Migrate**. From this dialog, you can choose where to move your instance.

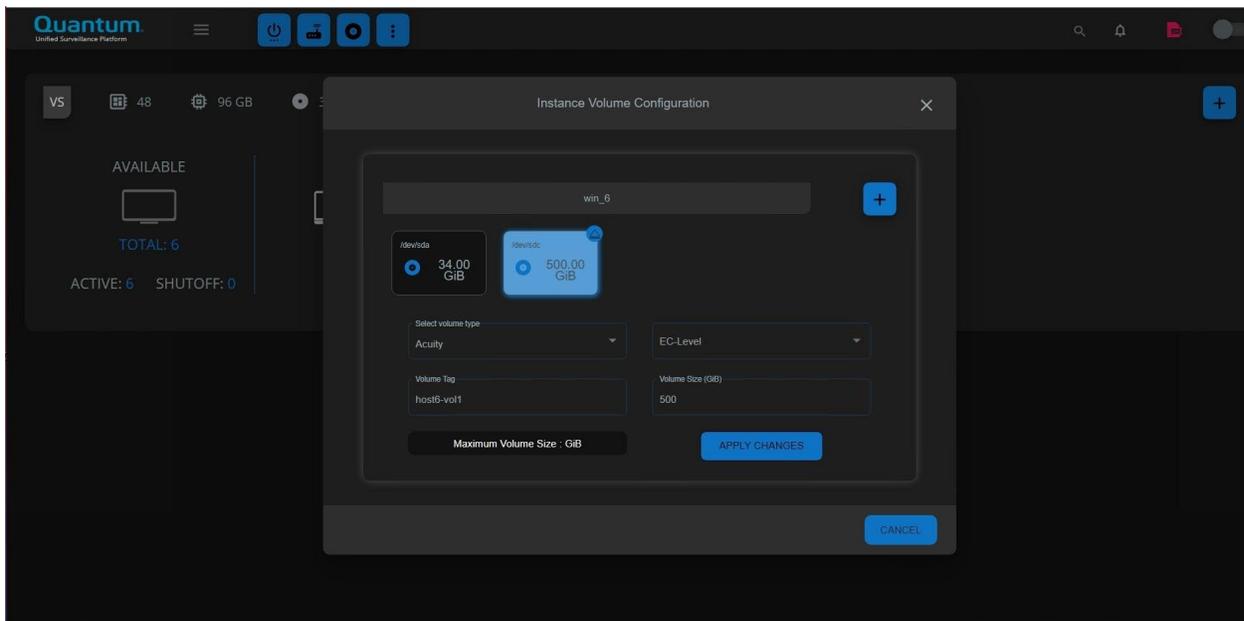


Instance Volume Update

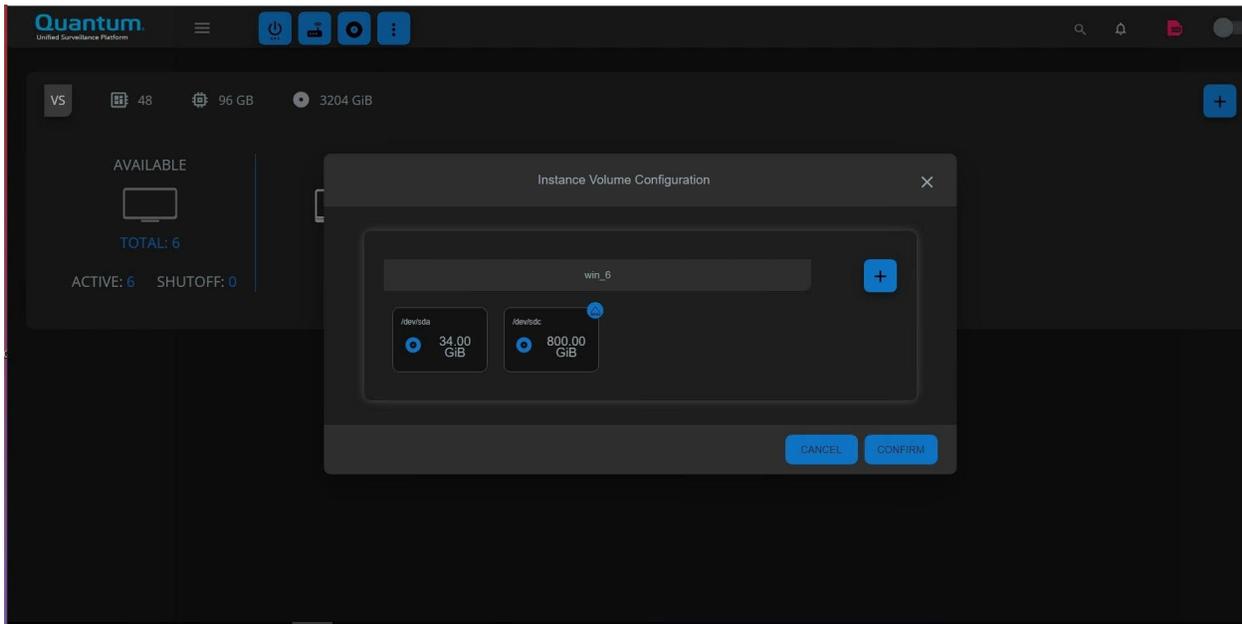
1. Select an instance in the **Manage Instances** section and select the **Disk** icon in the top of the web application to perform Volume actions on an instance. Then Click on Attach/Detach Volumes.



2. Click on the Disk you want to edit. Enter the Details and click on “Apply Changes.”

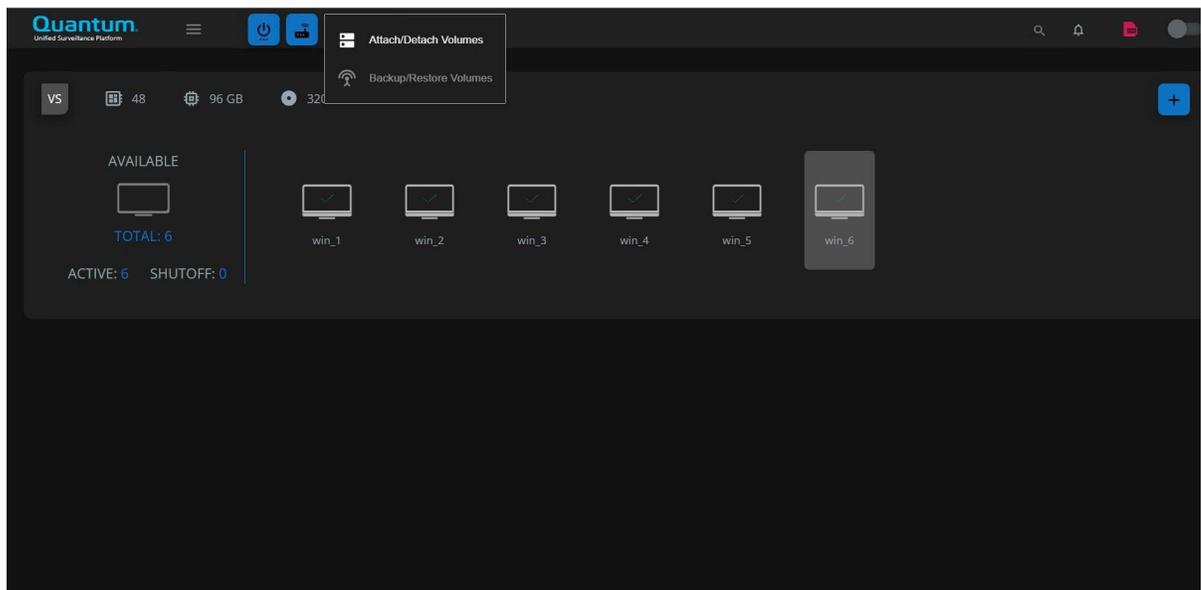


3. Click on “Confirm”.



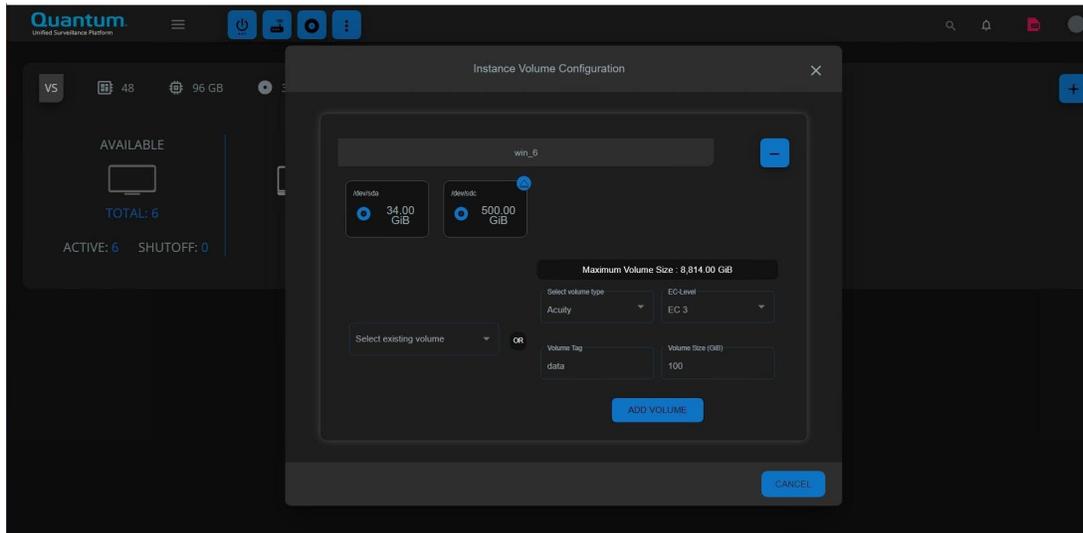
Instance Volume Addition

1. Select an instance in the **Manage Instances** section and select the **Disk** icon in the top of the web application to perform Volume actions on an instance. Then click on Attach/Detach Volumes.

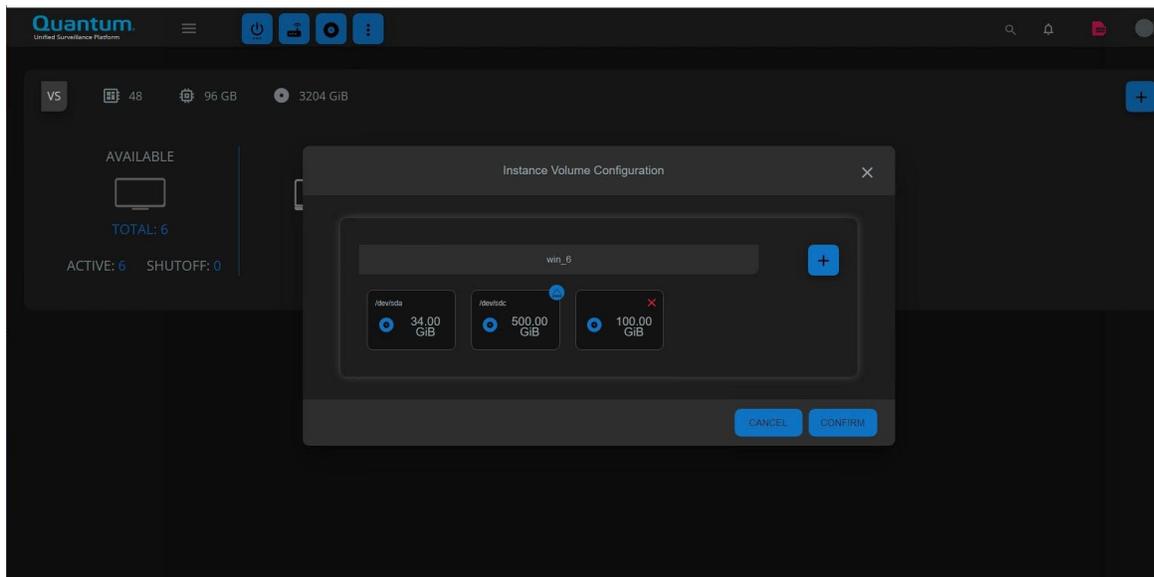


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2. Click on the **+** Button. Either select an already **Existing Volume** or fill in all the details to create a **New Volume**. Click on “Add Volume.”

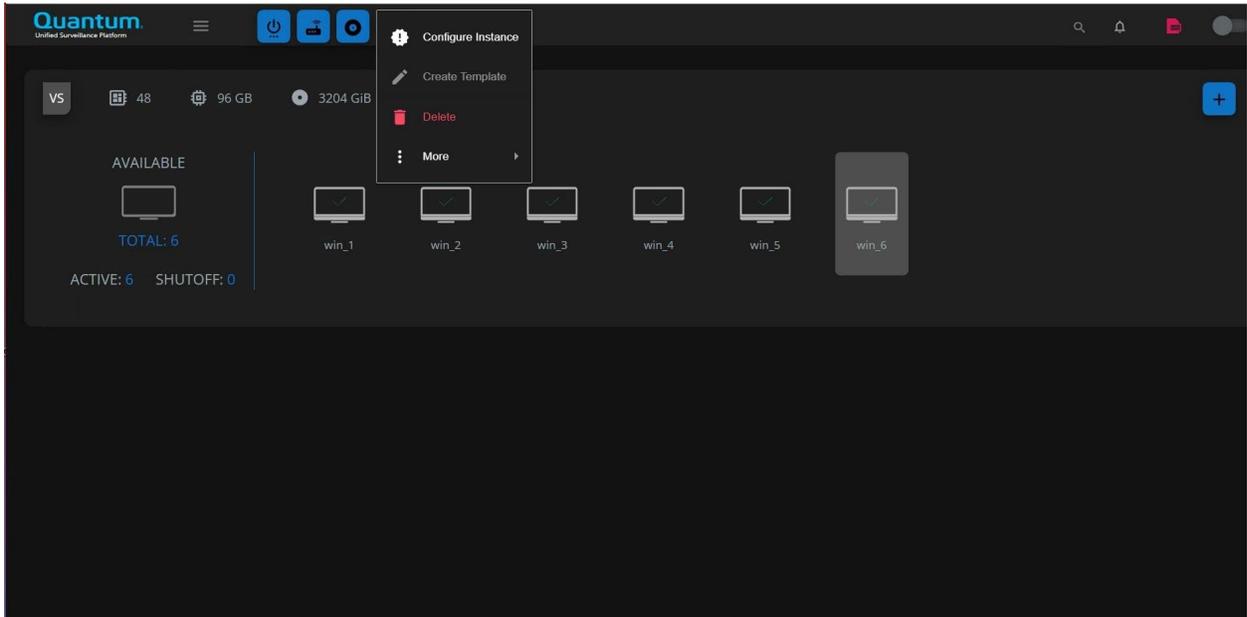


3. The **New Disk** will appear in the list. Click on **Confirm** to add the volume to your **VM**.

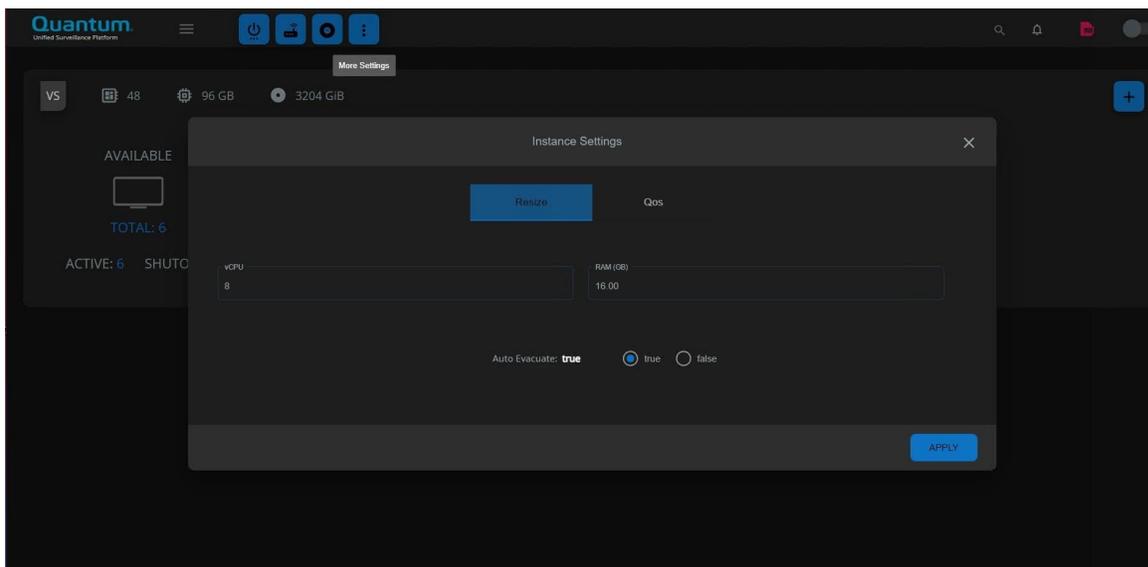


Instance CPU & RAM UPDATE

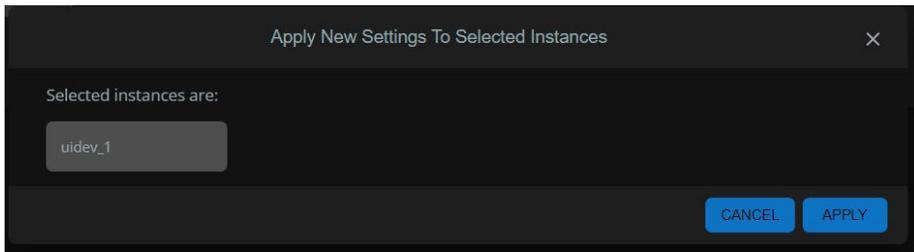
1. Select an instance in the Manage Instances section and select the “Three Dots” icon in the top of the web application to perform CPU/RAM change actions on an instance. Then Click on “Configure Instances.”



2. Under the “Resize” Tab, you will see the Values for vCPU and RAM. Adjust them accordingly as per your requirements. Then Click on “Apply.”

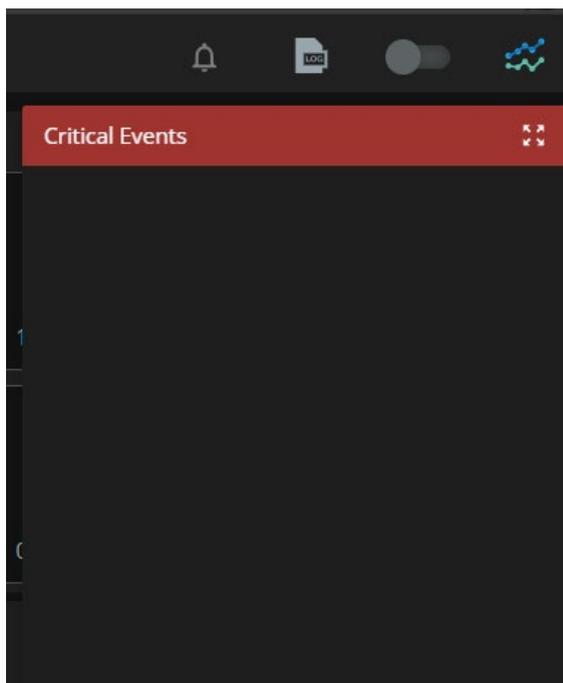
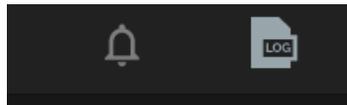


3. Click on “Apply” again. And wait for the VM to reboot.



Events & Logs

You can view the critical events and the logs by clicking on the **Bell** and **Log** icons respectively, which are in the top-right corner of the application.



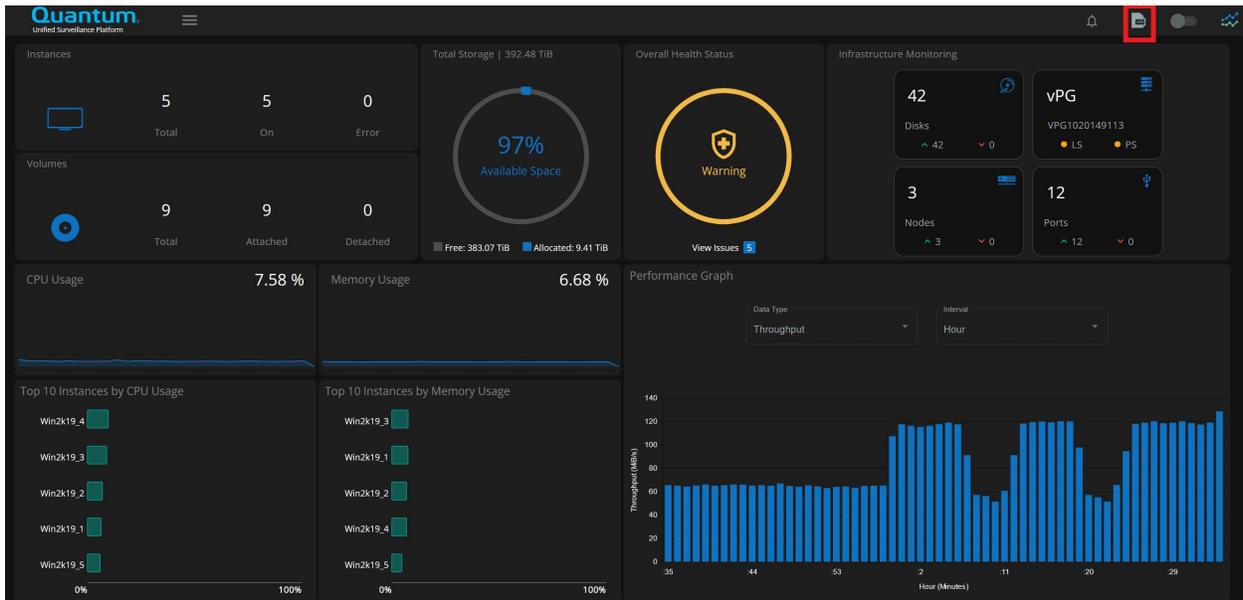
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Date/time (UTC)	Username	Status	Message
Sep 28, 2023, 3:55:05 PM	administrator	COMPLETED	Instance Win2k19_5 CREATE completed with ram 18 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 3:29:42 PM	administrator	STARTED	Instance Win2k19_5 CREATE started with ram 18 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 3:27:00 PM	administrator	COMPLETED	Instance Win2k19_4 VOLUME CREATE completed with name w2k19-4-1, size 1024GiB, ec-level ec-3 and type Acuity.
Sep 28, 2023, 3:26:02 PM	administrator	STARTED	Instance Win2k19_4 VOLUME CREATE started with name w2k19-4-1, size 1024GiB, ec-level ec-3 and type Acuity.
Sep 28, 2023, 1:13:50 PM	administrator	COMPLETED	Instance Win2k19_4 CREATE completed with ram 16 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 12:51:51 PM	administrator	STARTED	Instance Win2k19_4 CREATE started with ram 16 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 12:49:19 PM	administrator	COMPLETED	Instance Win2k19_3 VOLUME CREATE completed with name win2k19-3-1, size 1024GiB, ec-level ec-3 and type Acuity.
Sep 28, 2023, 12:49:08 PM	administrator	STARTED	Instance Win2k19_3 VOLUME CREATE started with name win2k19-3-1, size 1024GiB, ec-level ec-3 and type Acuity.

Health and Monitoring

Viewing Events & Tasks

To view the events and tasks, click the **Log** icon in the top right corner of the management application to launch the **Logs** dialog.



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Actions

Shows the user-initiated actions like creating instances.

Date/time (UTC)	Username	Status	Message
Sep 28, 2023, 3:55:05 PM	administrator	COMPLETED	Instance Win2k19_5 CREATE completed with ram 18 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 3:29:42 PM	administrator	STARTED	Instance Win2k19_5 CREATE started with ram 18 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 3:27:00 PM	administrator	COMPLETED	Instance Win2k19_4 VOLUME CREATE completed with name w2k19-4-1, size 1024GiB, ec-level ec-3 and type Acuity.
Sep 28, 2023, 3:26:02 PM	administrator	STARTED	Instance Win2k19_4 VOLUME CREATE started with name w2k19-4-1, size 1024GiB, ec-level ec-3 and type Acuity.
Sep 28, 2023, 1:13:50 PM	administrator	COMPLETED	Instance Win2k19_4 CREATE completed with ram 16 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 12:51:51 PM	administrator	STARTED	Instance Win2k19_4 CREATE started with ram 16 GB, 4 vcpus and network vm_network_1 10.20.144.0/21.
Sep 28, 2023, 12:49:19 PM	administrator	COMPLETED	Instance Win2k19_3 VOLUME CREATE completed with name win2k19-3-1, size 1024GiB, ec-level ec-3 and type Acuity.
Sep 28, 2023, 12:48:00 PM	administrator	STARTED	Instance Win2k19_3 VOLUME CREATE started with name win2k19-3-1, size 1024GiB, ec-level ec-3 and type Acuity.

NICs

Shows the physical NIC related events.

Host	Date/Time (UTC)	NICs	Status	Interface Type
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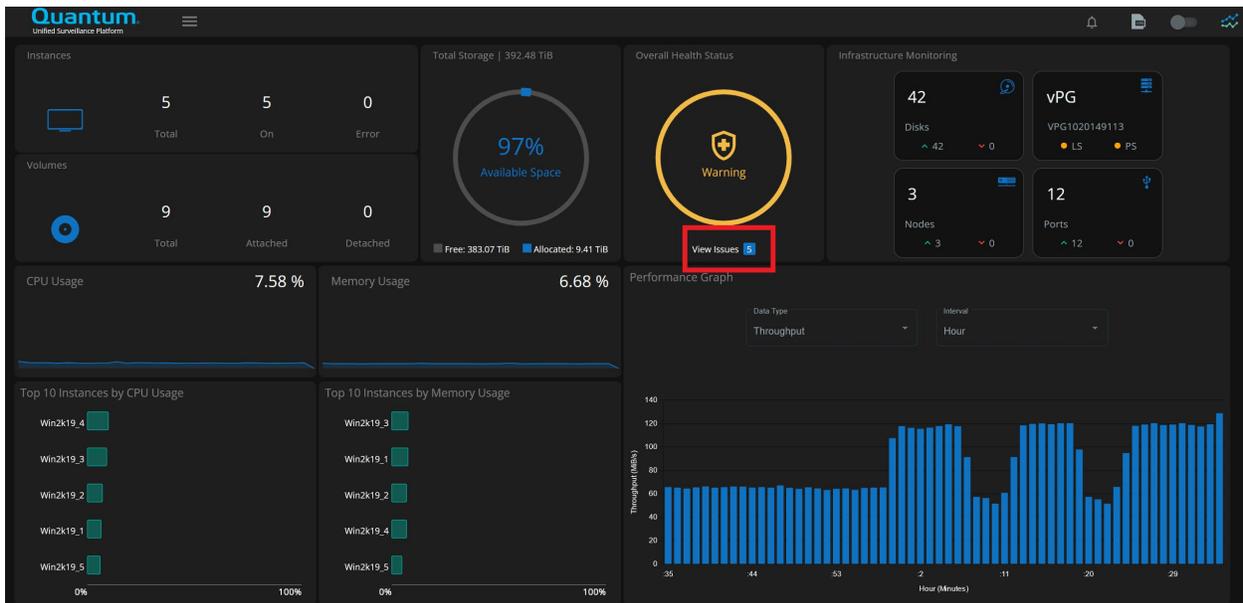
Acuity Storage Events

Shows the Acuity backend-storage events.

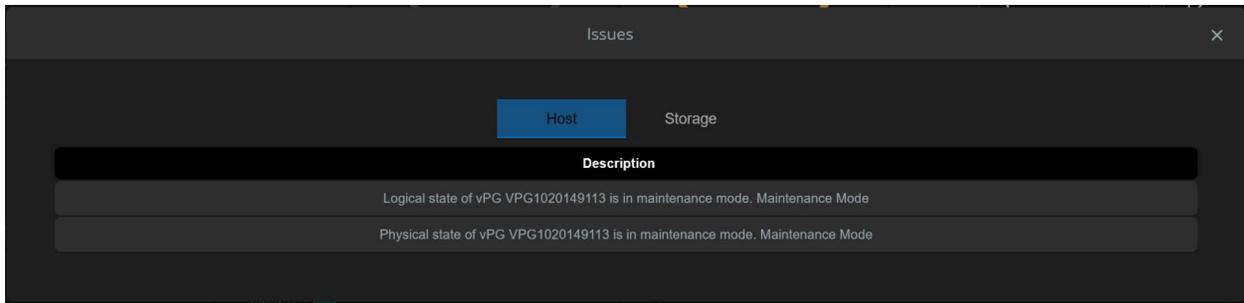
Object	Date/Time (UTC)	System Name	Severity	Description
vPG	Sep 28, 2023, 9:32:52 PM	VPG1020149113	WARN	vPG VPG1020149113 has logical state Maintenance Mode Synchronization.
vPG	Sep 28, 2023, 9:32:52 PM	VPG1020149113	WARN	vPG VPG1020149113 has physical state Maintenance Mode Synchronization.
vPG	Sep 28, 2023, 9:25:15 PM	VPG1020149113	WARN	vPG VPG1020149113 has logical state Maintenance Mode.
vPG	Sep 28, 2023, 9:25:15 PM	VPG1020149113	WARN	vPG VPG1020149113 has physical state Maintenance Mode.
vPG	Sep 28, 2023, 9:22:00 PM	VPG1020149113	INFO	vPG VPG1020149113 has logical state Normal.
vPG	Sep 28, 2023, 9:22:00 PM	VPG1020149113	ERROR	vPG VPG1020149113 has physical state Incomplete Upgrade.
vPG	Sep 28, 2023, 9:17:59 PM	VPG1020149113	WARN	vPG VPG1020149113 has logical state Maintenance Mode Synchronization.
vPG	Sep 28, 2023, 9:17:59 PM	VPG1020149113	WARN	vPG VPG1020149113 has physical state Maintenance Mode Synchronization.
vPG	Sep 28, 2023, 9:13:01 PM	VPG1020149113	WARN	vPG VPG1020149113 has logical state Maintenance Mode.
vPG	Sep 28, 2023, 9:13:01 PM	VPG1020149113	WARN	vPG VPG1020149113 has physical state Maintenance Mode.

Viewing Current Issues

If there is a problem with the cluster, you can launch the **Issues** dialog to see all issues in one location. Press **View Issues** on the dashboard to launch the Issues dialog.

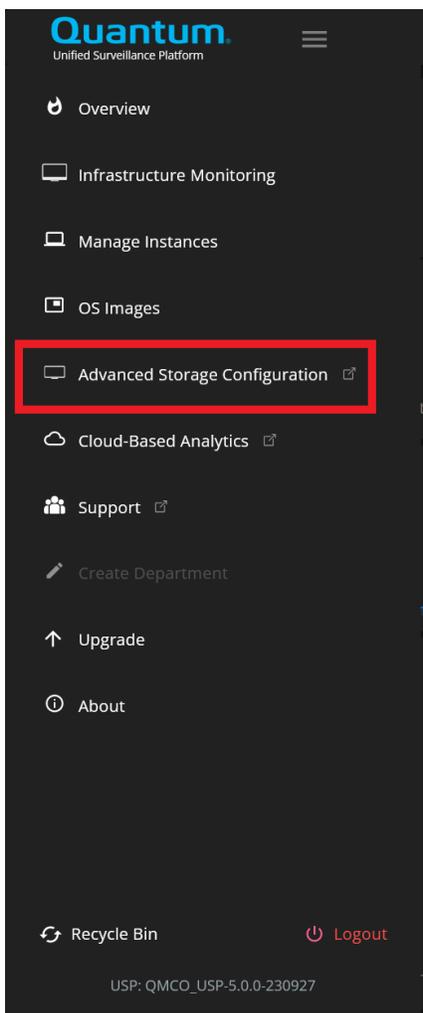


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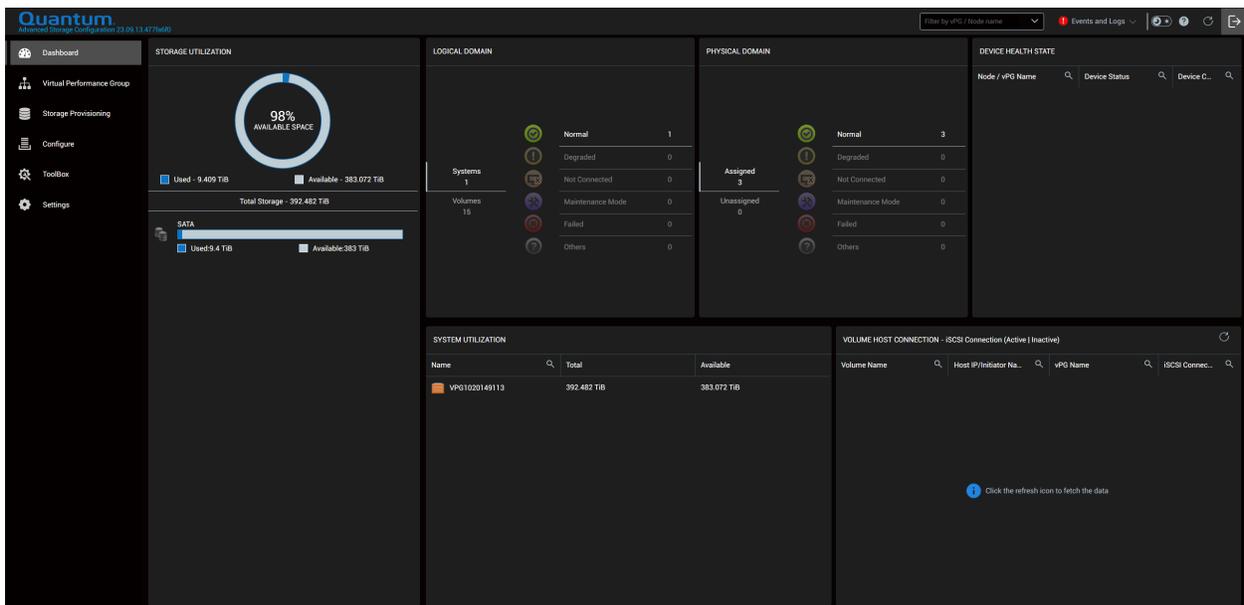
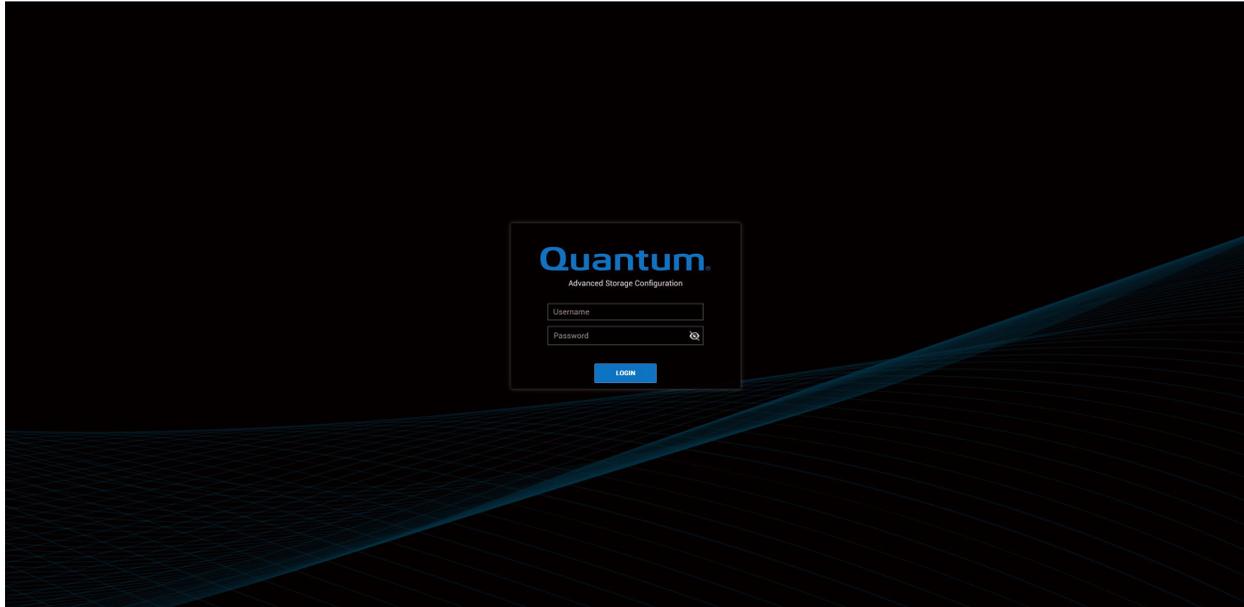
Launching the Acuity Advanced Storage Configuration Utility

To launch the Acuity Advanced Storage Configuration Utility, navigate to the USP Menu and select Advances Storage Configuration.



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Log on to the Advanced Storage Configuration Utility using the same credentials you used to access the Quantum USP Management Application.



Viewing the Acuity VM Console

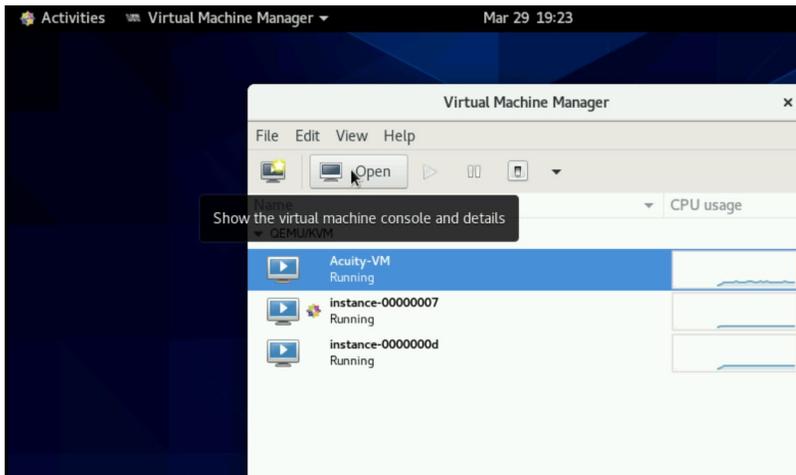
1. Log on to the USP CentOS console.
2. Click the **Activities** button, located in the upper left-hand corner.

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3. Search for **Virtual Machine Manager** and click on the icon to launch.



4. Select the **Acuity-VM** instance and click on **Open** to launch the console.



Cloud-Based Analytics (CBA) Portal

The USP product will automatically report to Quantum's CBA portal. Log in to the [Quantum CBA Portal UI](#) from any browser and type in your user details and credentials. If you do not have access to the portal, request access through the [Quantum CBA Portal UI](#) by clicking the **Request Site Access** link.

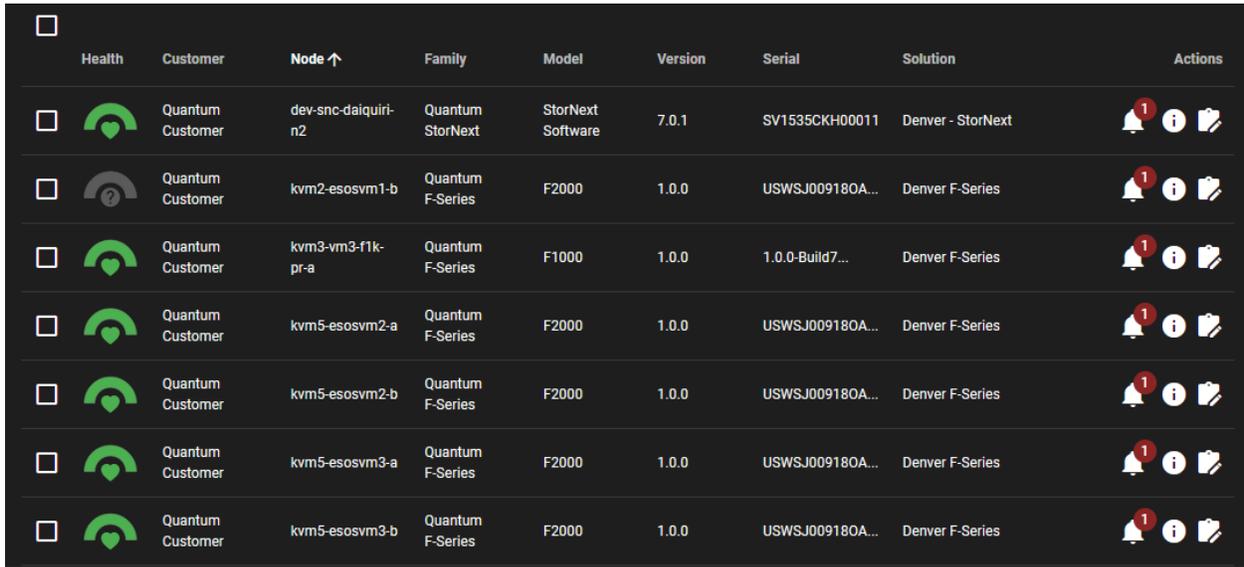
Once you log in, the CBA portal UI displays the solutions and nodes that are mapped to your account. The portal can also display your account information and association token.

The Quantum CBA portal displays the options to view **Solutions** and **Nodes**. To monitor the VS-NVR servers, click **Nodes**.



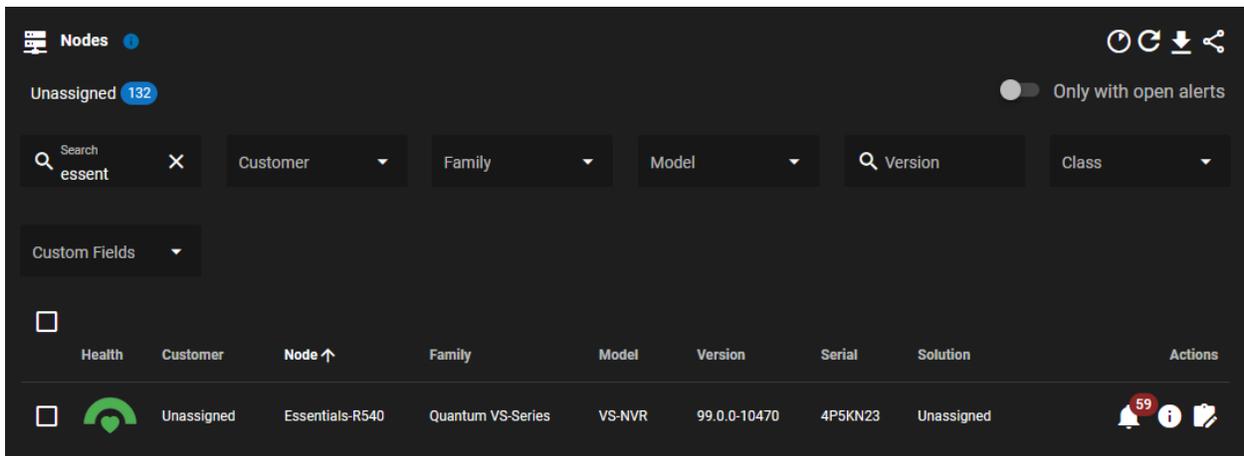
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The list of nodes that are associated with your account along with some basic information is displayed.



Health	Customer	Node ↑	Family	Model	Version	Serial	Solution	Actions
	Quantum Customer	dev-snc-daiquiri-n2	Quantum StorNext	StorNext Software	7.0.1	SV1535CKH00011	Denver - StorNext	
	Quantum Customer	kvm2-esosvm1-b	Quantum F-Series	F2000	1.0.0	USWSJ009180A...	Denver F-Series	
	Quantum Customer	kvm3-vm3-f1k-pr-a	Quantum F-Series	F1000	1.0.0	1.0.0-Build7...	Denver F-Series	
	Quantum Customer	kvm5-esosvm2-a	Quantum F-Series	F2000	1.0.0	USWSJ009180A...	Denver F-Series	
	Quantum Customer	kvm5-esosvm2-b	Quantum F-Series	F2000	1.0.0	USWSJ009180A...	Denver F-Series	
	Quantum Customer	kvm5-esosvm3-a	Quantum F-Series	F2000	1.0.0	USWSJ009180A...	Denver F-Series	
	Quantum Customer	kvm5-esosvm3-b	Quantum F-Series	F2000	1.0.0	USWSJ009180A...	Denver F-Series	

You can filter the nodes by name, model, version, and so on. Select the node that you want to monitor.



Nodes 132 Unassigned 132 Only with open alerts

Search X Customer Family Model Version Class

Custom Fields

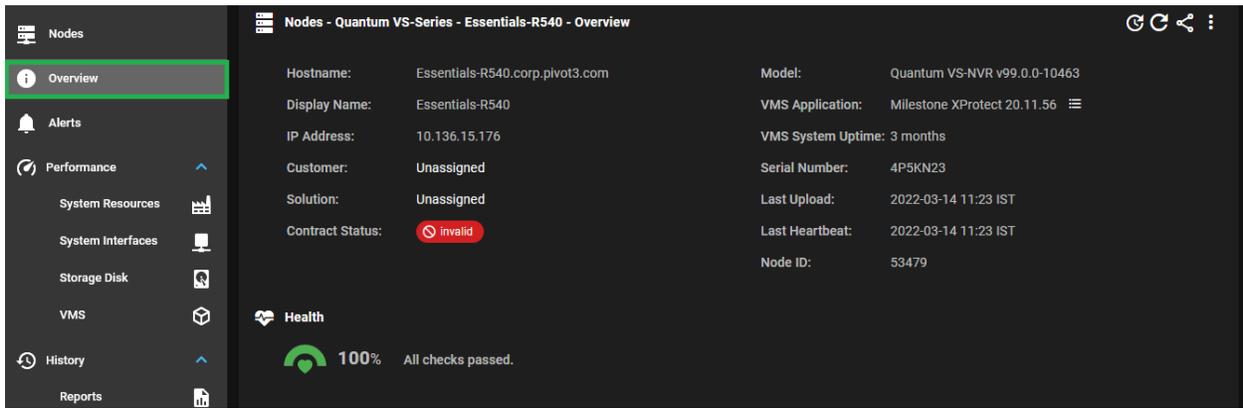
Health	Customer	Node ↑	Family	Model	Version	Serial	Solution	Actions
	Unassigned	Essentials-R540	Quantum VS-Series	VS-NVR	99.0.0-10470	4P5KN23	Unassigned	

Once you clicked the required node, you can see the following information about the node.

- Overview
- Alerts
- Performance:
 - System Resources
 - System Interfaces
 - Storage Disk
 - VMS
- History: Reports

Overview

This section describes the overall status and basic information about the node.



The **Overview** section also lists the VMS applications that are installed in the VS-NVR system.

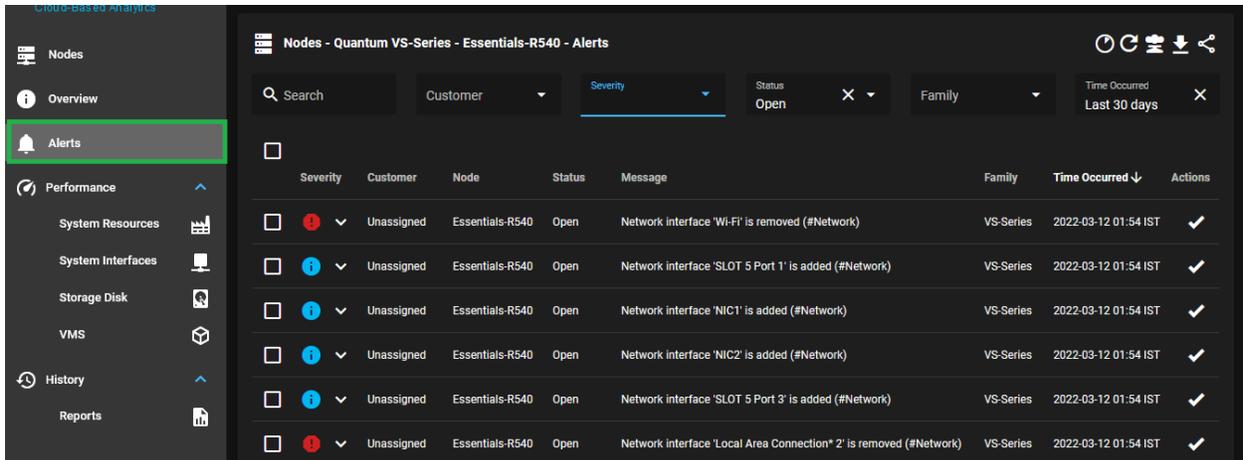
The screenshot shows the 'VMS Application Services' section with the following table:

Name	Vendor	Version
Milestone XProtect VMS Device Pack 11.7a	Milestone Systems A/S	11.7.68.1
Milestone Server Configurator	Milestone	21.2.684.1
Milestone XProtect Recording Server (64-bit)	Milestone Systems A/S	21.2.1558.1
Milestone XProtect Data Collector Server	Milestone Systems A/S	21.21.819
Milestone XProtect Recording Server (64-bit)	Milestone Systems A/S	21.21.1877

Alerts

The **Alerts** section displays the events that are specific to the selected node. The Alert table lists each event with the time it occurred, message, severity of the event, and current status of the event. The status message displays whether the alert has been acknowledged.

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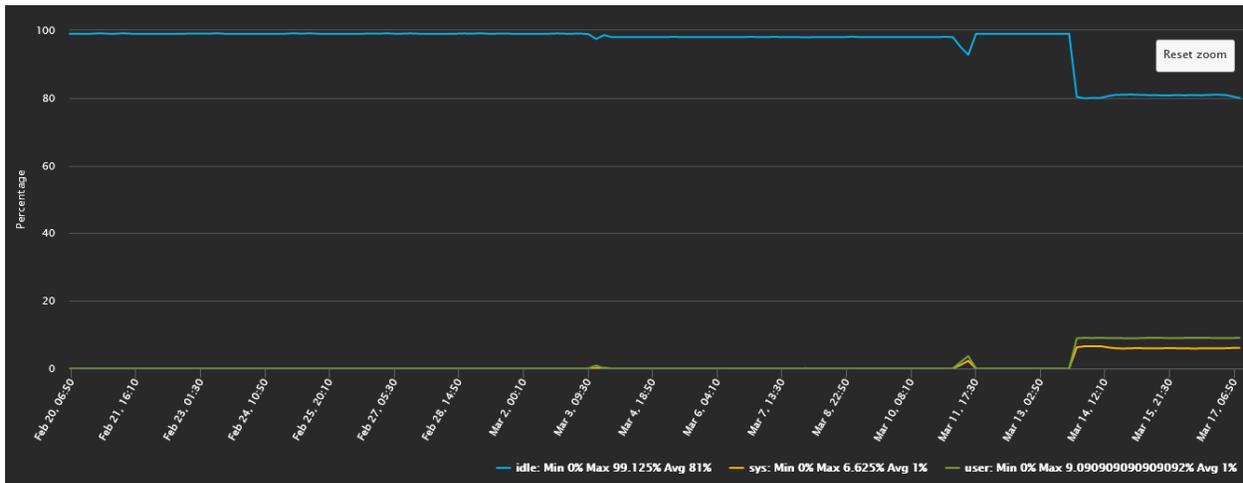


Performance

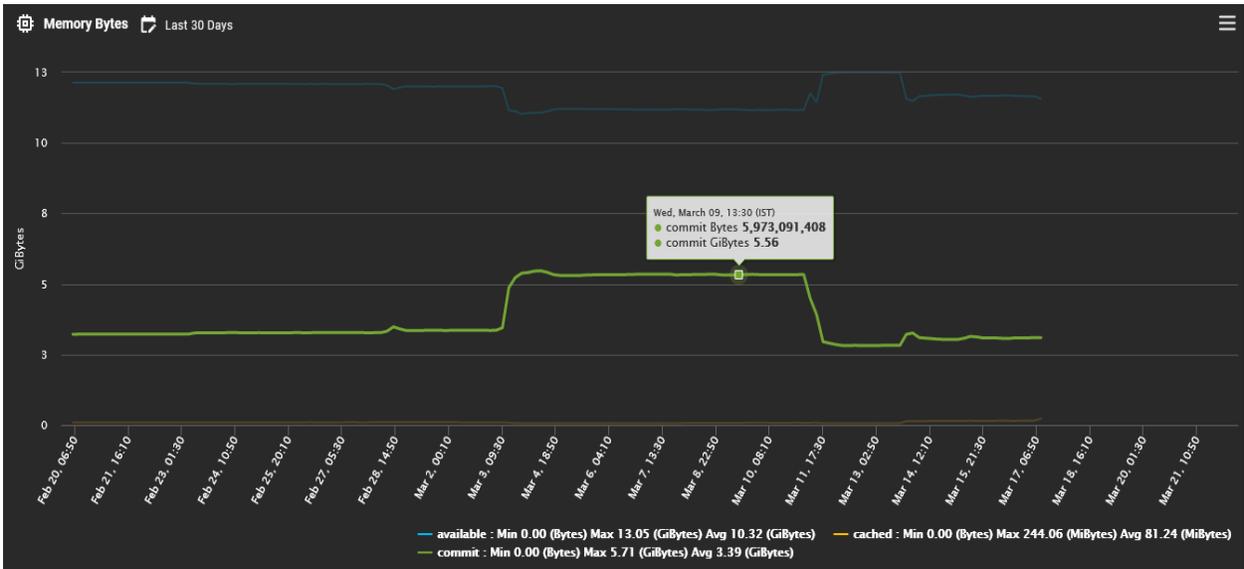
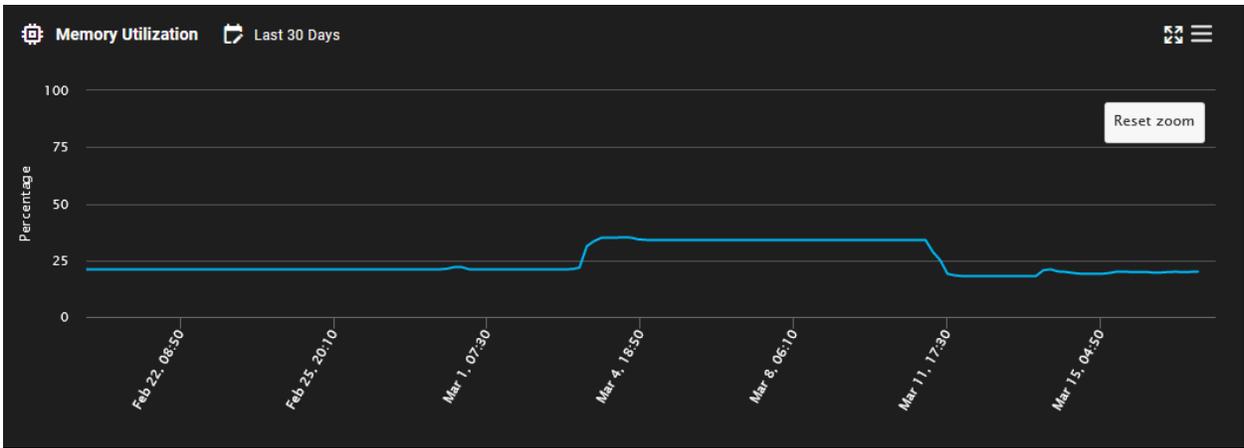
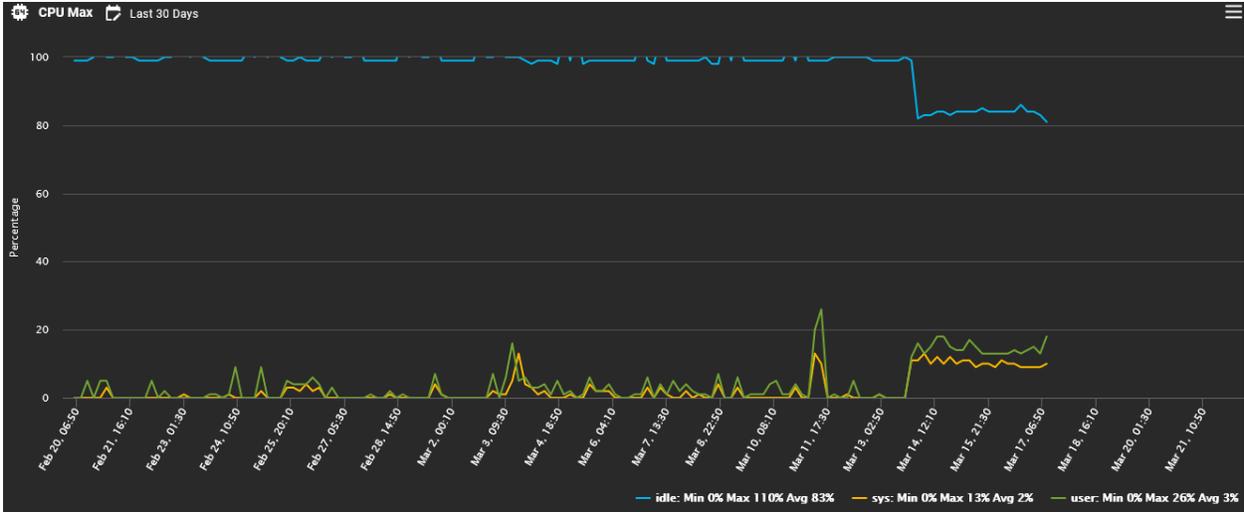
The **Performance** metrics display historical data about various system resources, such as CPU, Memory, Network, and Storage Disk.

System Resources

The **System Resources** option displays the CPU (Max and Average) and Memory (Bytes and utilization) performance charts.

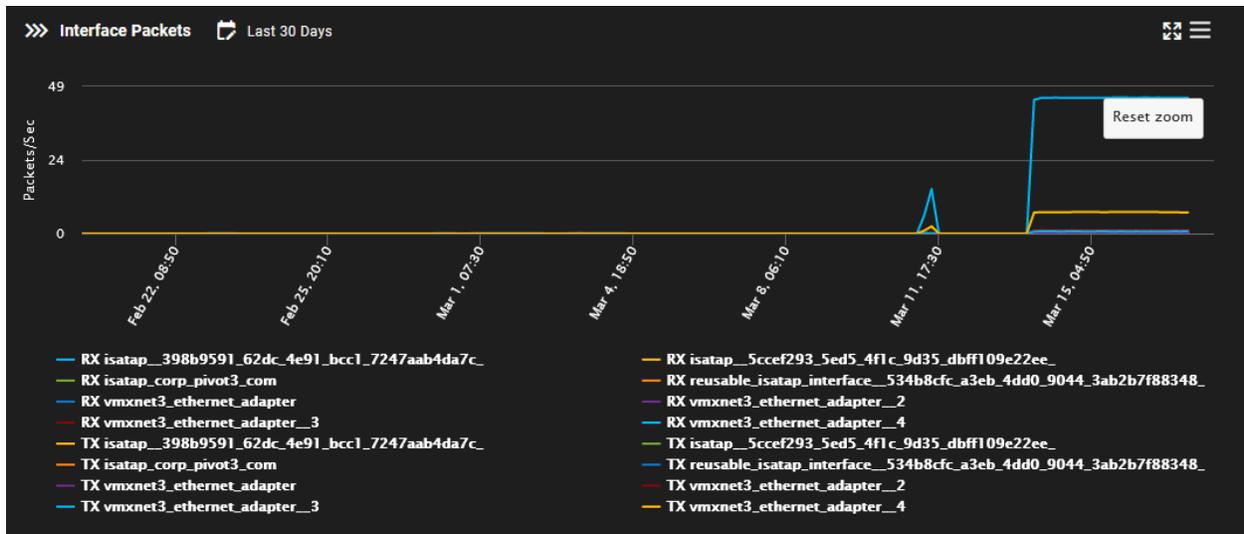
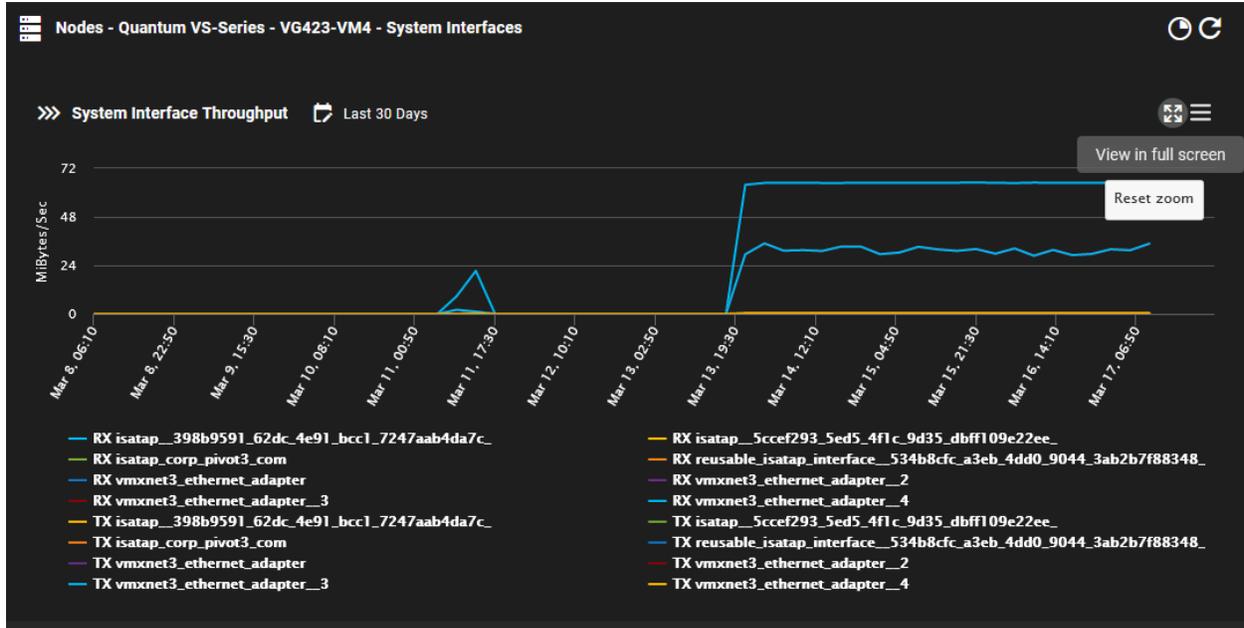


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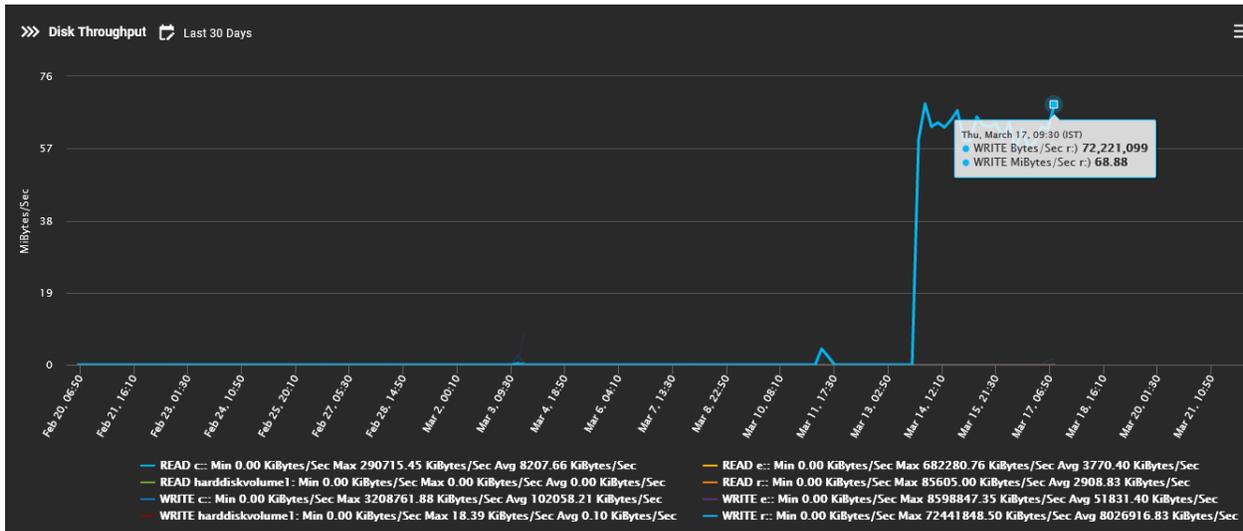
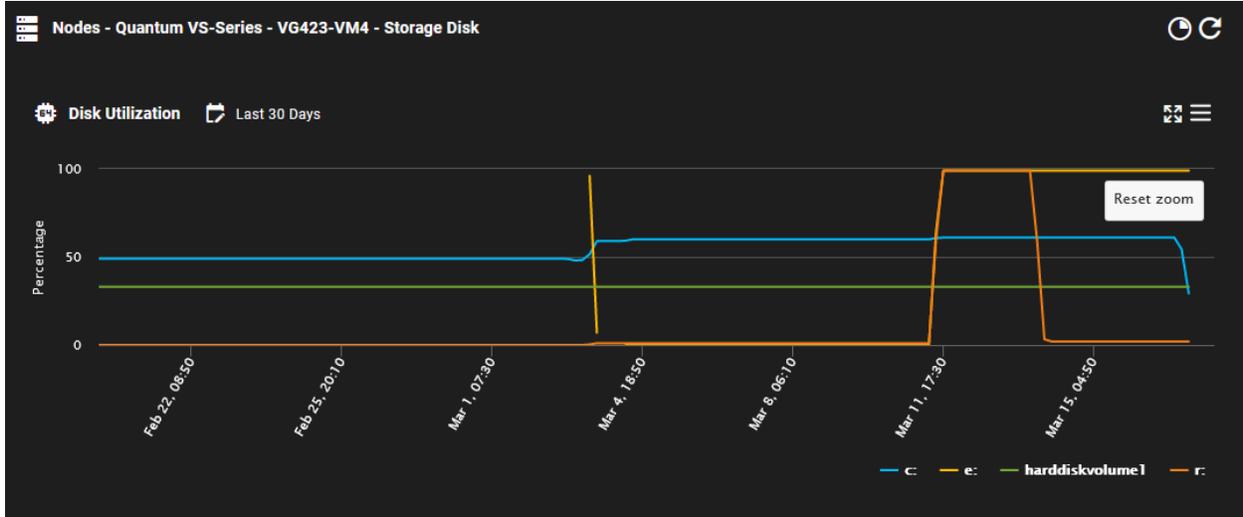
System Interfaces

The **System Interface Throughput** option displays charts related to network performance, such as network throughput and packets of each network interface.



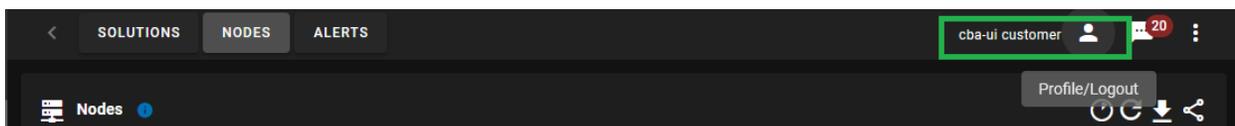
Storage Disk

This **Storage Disk** option provides you with the historical disk performance (disk throughput and utilization) in chart view.



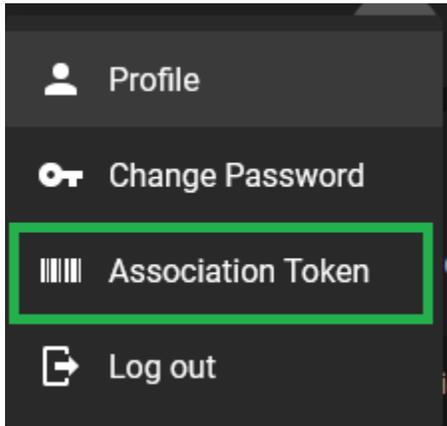
User Association Token

You use the Association token to associate servers/agents to your account. To associate a server/agent to your account, provide your account Association token during USP installation. To receive an Association token, log in to the CBA portal and click the **user** icon, as highlighted in the following image.

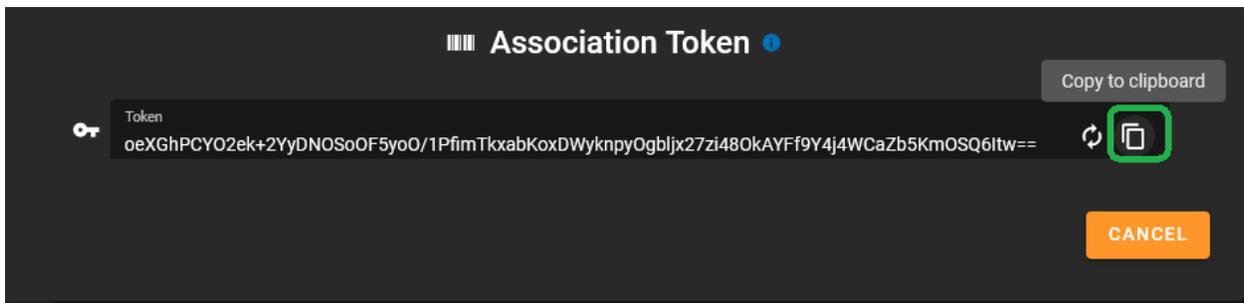


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When you click the **user** icon, the following menu is displayed with the appropriate options. Click **Association Token** for the Association token for your account.



Your unique Association token is displayed in a pop-up dialog box. Click **Copy to Clipboard** to copy the Association token to your clipboard.



You can use the Association token during the USP installation.

Known Issues and Limitations

Instance Operations During Image Upload

Instance Operations are not supported while an image is uploading. Performing virtual machine operations while uploading an image can lock the department and requires assistance from Quantum Support.

The Quantum logo is rendered in a bold, blue, sans-serif font. The background of the page features a series of diagonal stripes in various shades of blue and purple, creating a dynamic, modern aesthetic.

Quantum[®]

Quantum technology, software, and services provide the solutions that today's organizations need to make video and other unstructured data smarter – so their data works for them and not the other way around. With over 40 years of innovation, Quantum's end-to-end platform is uniquely equipped to orchestrate, protect, and enrich data across its lifecycle, providing enhanced intelligence and actionable insights. Leading organizations in cloud services, entertainment, government, research, education, transportation, and enterprise IT trust Quantum to bring their data to life, because data makes life better, safer, and smarter. Quantum is listed on Nasdaq (QMCO) and the Russell 2000[®] Index. For more information visit www.quantum.com.

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