

Hitachi Unified Compute Platform (UCP) Advisor

2.0.0 Patch 1

Administration Guide

This document describes the administration process for UCP Advisor 2.0 management software and is intended for VMware administrators who manage Hitachi UCP systems.

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Preface

This document describes the administration tasks for Hitachi UCP Advisor 2.0 software.

This preface includes the following information:

Intended audience

This document is intended for VMware Administrators who manage Hitachi UCP systems.

Administrators should have storage, networking, server, and virtualization experience.

Product version

This document revision applies to Hitachi UCP Advisor v2.0.0-00 or later.

Release notes

Read the release notes before installing and using this product. They may contain requirements or restrictions that are not fully described in this document or updates or corrections to this document. Release notes are available on Hitachi Vantara Support Connect: <https://knowledge.hitachivantara.com/Documents>.




Document conventions


This document uses the following typographic conventions:

Convention	Description
Bold	<ul style="list-style-type: none">Indicates text in a window, including window titles, menus, menu options, buttons, fields, and labels. Example: Click OK.Indicates emphasized words in list items.

Convention	Description
<i>Italic</i>	<ul style="list-style-type: none"> Indicates a document title or emphasized words in text. Indicates a variable, which is a placeholder for actual text provided by the user or for output by the system. Example: <pre>pairedisplay -g group</pre> <p>(For exceptions to this convention for variables, see the entry for angle brackets.)</p>
Monospace	Indicates text that is displayed on screen or entered by the user. Example: <code>pairedisplay -g oradb</code>
< > angle brackets	<p>Indicates variables in the following scenarios:</p> <ul style="list-style-type: none"> Variables are not clearly separated from the surrounding text or from other variables. Example: <pre>Status-<report-name><file-version>.csv</pre> Variables in headings.
[] square brackets	Indicates optional values. Example: [a b] indicates that you can choose a, b, or nothing.
{ } braces	Indicates required or expected values. Example: { a b } indicates that you must choose either a or b.
vertical bar	<p>Indicates that you have a choice between two or more options or arguments. Examples:</p> <p>[a b] indicates that you can choose a, b, or nothing.</p> <p>{ a b } indicates that you must choose either a or b.</p>

This document uses the following icons to draw attention to information:

Icon	Label	Description
	Note	Calls attention to important or additional information.
	Tip	Provides helpful information, guidelines, or suggestions for performing tasks more effectively.
	Caution	Warns the user of adverse conditions and/or consequences (for example, disruptive operations, data loss, or a system crash).

Icon	Label	Description
	WARNING	Warns the user of a hazardous situation which, if not avoided, could result in death or serious injury.

Conventions for storage capacity values

Physical storage capacity values (for example, disk drive capacity) are calculated based on the following values:

Physical capacity unit	Value
1 kilobyte (KB)	1,000 (10^3) bytes
1 megabyte (MB)	1,000 KB or $1,000^2$ bytes
1 gigabyte (GB)	1,000 MB or $1,000^3$ bytes
1 terabyte (TB)	1,000 GB or $1,000^4$ bytes
1 petabyte (PB)	1,000 TB or $1,000^5$ bytes
1 exabyte (EB)	1,000 PB or $1,000^6$ bytes

Logical capacity values (for example, logical device capacity, cache memory capacity) are calculated based on the following values:

Logical capacity unit	Value
1 block	512 bytes
1 cylinder	Mainframe: 870 KB Open-systems: <ul style="list-style-type: none"> ▪ OPEN-V: 960 KB ▪ Others: 720 KB
1 KB	1,024 (2^{10}) bytes
1 MB	1,024 KB or $1,024^2$ bytes
1 GB	1,024 MB or $1,024^3$ bytes
1 TB	1,024 GB or $1,024^4$ bytes
1 PB	1,024 TB or $1,024^5$ bytes
1 EB	1,024 PB or $1,024^6$ bytes

Accessing product documentation

Product user documentation is available on Hitachi Vantara Support Connect: <https://knowledge.hitachivantara.com/Documents>. Check this site for the most current documentation, including important updates that may have been made after the release of the product.

Getting help

[Hitachi Vantara Support Connect](https://support.hitachivantara.com/en_us/contact-us.html) is the destination for technical support of products and solutions sold by Hitachi Vantara. To contact technical support, log on to Hitachi Vantara Support Connect for contact information: https://support.hitachivantara.com/en_us/contact-us.html.

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Thank you!

Chapter 1: Getting started

Hitachi UCP Advisor provides a single framework for managing diverse and distributed environments across the UCP system family.

Overview of UCP Advisor

Hitachi UCP Advisor provides detailed information about the infrastructure components and allows you to manage operations for connected devices.

UCP Advisor simplifies infrastructure operations. Seamless integration allows automated provisioning of the UCP systems - for both the converged, and hyperconverged infrastructure. It provides unified management, central oversight, and smart life-cycle management for firmware upgrades, element visibility, and troubleshooting.

Features

Hitachi UCP Advisor provides pertinent information and allows you to manage operations for connected devices.

Major features include:

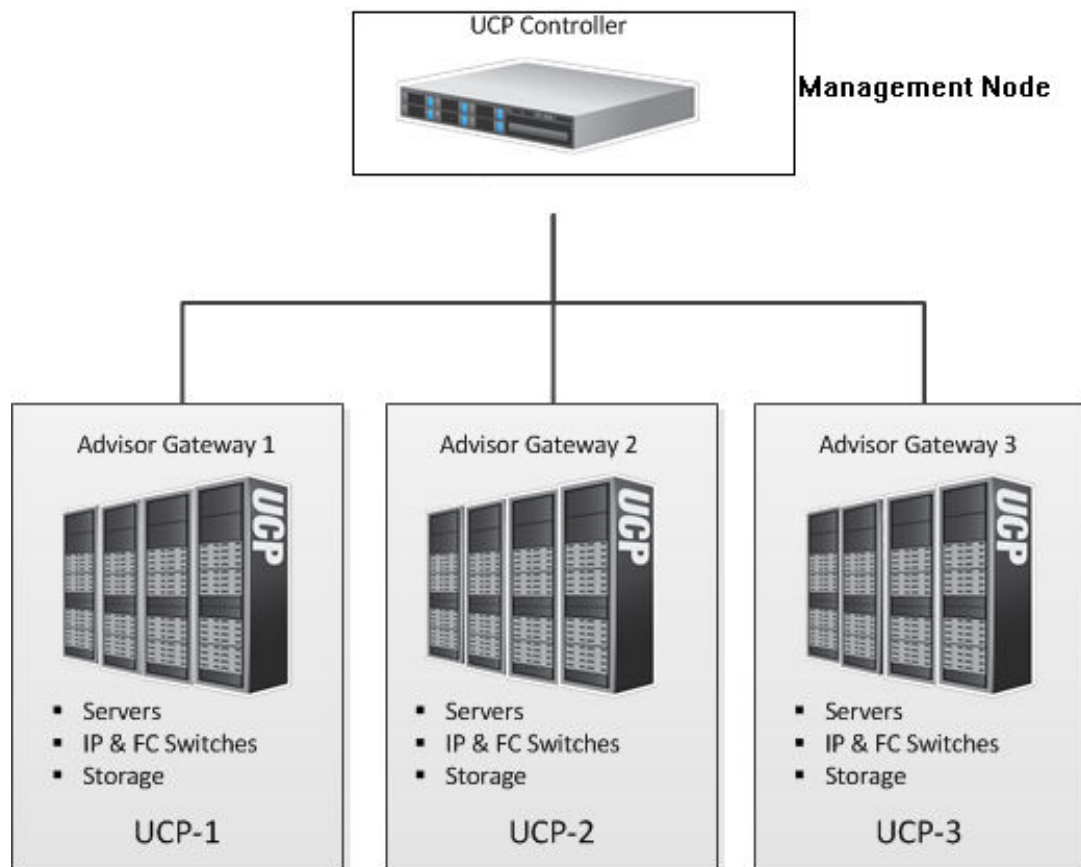
- Simplified deployments: UCP Advisor simplifies IT management and orchestration for faster and easier deployment of converged and hyperconverged systems.
- Federated system management: UCP Advisor enables simplified management of one or many Unified Compute Platform family systems, including converged and hyperconverged systems. UCP Advisor allows provisioning of compute nodes, storage, ethernet, and fibre channel from a single, unified management interface.
- Easy synchronization of VLANs with rack switches: UCP Advisor intelligently synchronizes the virtual, distributed switch trunk VLANs with the node switch interfaces on the rack switches and allows easy port-level VLAN management.
- Simple, one-click firmware upgrade: The upgrade firmware option allows you to download a firmware bundle from the Hitachi portal and upload it to UCP Advisor. Supports firmware upgrade for compute nodes and Ethernet, or Fibre Channel switches. The simple, one-click automated upgrade process upgrades the firmware by moving the compute hosts into maintenance mode, applying relevant patches, and bringing hosts back online.
- Integration with VMware applications.
 - VMware vRealize Orchestrator: UCP Advisor integrates seamlessly with vRealize Orchestrator. You can initiate workflows such as managing compute nodes, performing data backup/restores, and provisioning of datastores. You can also track, manage, and complete the workflows in vRealize Orchestrator.

- VMware vRealize LogInsight: UCP Advisor tightly integrates with vRealize LogInsight to provide a single interface to monitor system-level activities and provide security audit logs for the UCP environment. This enables you to quickly identify security-level breaches and detect unauthorized access from rogue IPs.
- Intelligent automation and orchestration with Hitachi Automation Director (HAD): Integration with Hitachi Automation Director enables IT process automation and smart infrastructure provisioning capabilities. UCP Advisor leverages the smart provisioning workflows and templates available through HAD.

UCP Advisor environment

The UCP Advisor environment consists of a UCP Controller (Management Node) and the onboarded Advisor Gateways.

A typical UCP Advisor environment is shown below.



The Management Node is the server on which the UCP Advisor components, UCP Controller VM and Advisor Gateway VM are installed. The UCP Advisor software is deployed on *clustered server nodes*. The Management Node has redundant connections to ensure connectivity to UCP Advisor systems. For every UCP Advisor system, a single controller VM is deployed and can manage one or many UCP converged infrastructure (CI) or UCP hyperconverged (HC) systems, as long as an Advisor Gateway VM is deployed per system.

Each UCP CI system includes Ethernet and Fibre Channel switches, storage systems, servers, and compute nodes and is connected to the controller vm via individual gateway VMs in each CI, HC, and RS system.

Supported hardware

The following hardware components are supported in UCP Advisor 2.0.

UCP Converged Infrastructure Appliance

- Compute : Up to 128 - Hitachi Advanced Server DS120 (1U, 2 socket)
- Ethernet Switch: Cisco Nexus 93180YC-EX/93180LC-EX/3048 switches
- Fibre Channel Switch: Brocade G620 switches
- Storage: VSP G/F 1500, VSP Gx00 and VSP Fx00 models

UCP Hyperconverged Appliance

- D52B-1U - V120F (All-Flash)

UCP HC Op2

- D51B (VSAN)

The following table shows the hardware that is supported by UCP Advisor:

		UCP CI (Skylake)	UCP HC (Skylake)	UCP 2000 (Broadwell)	UCP HC (Broadwell)	UCP RS (Broadwell)
Server		DS120 (D52B-1U1N)	v120F (D52B-1U1N)	T41S-2U4N (a.k.a. Sino)	v210/F (D51B-2U1N, Nitro) v240/F (T41S-2U4N, Sino)	v210/F (D51B-2U1N, Nitro)
Network	Ethernet	Cisco 93180YC Cisco 93180LC	(Optional) Cisco 93180YC Cisco 93180LC	Brocade 6740/6940	(Optional) Brocade 6740/6940	Cisco 9372PX Cisco 9332PQ
	FC	Brocade G620	N/A (vSAN)	Brocade 6505/6510	N/A (vSAN)	N/A (vSAN)
	Management	Cisco 3048	(Optional) Cisco 3048	Brocade 7450	(Optional) Brocade 7450	Quanta T1048 LB9
Storage		VSP G200 VPS G/F400 VPS G/F600 VPS G/F800 VSP G/F1500	N/A (vSAN)	VSP G200 VPS G/F400 VPS G/F600 VPS G/F800	N/A (vSAN)	N/A (vSAN)

The following table shows the features that are supported by UCP Advisor for each type of hardware platform:

		UCP CI (Skylake)	UCP HC (Skylake)	UCP 2000 (Broadwell)	UCP HC (Broadwell)	UCP RS (Broadwell)
Server	Inventory	YES	YES	YES	YES	YES
	Provisioning	YES	YES	YES (*1)	YES (*1)	YES (*1) (*2)
	Firmware Update	YES	YES	NO	NO	NO
Ethernet	Inventory	YES	YES	YES	YES	NO
	Provisioning	YES	YES	NO	NO	NO
	Firmware Update	YES	YES	NO	NO	NO
FC	Inventory	YES	N/A (vSAN)	YES	N/A (vSAN)	N/A (vSAN)
	Provisioning	YES	N/A (vSAN)	NO	N/A (vSAN)	N/A (vSAN)
	Firmware Update	YES	N/A (vSAN)	NO	N/A (vSAN)	N/A (vSAN)
Storage	Inventory	YES	YES (vSAN)	YES	YES (vSAN)	YES (vSAN) (*3)
	Provisioning	YES	NO (vSAN)	YES	NO (vSAN)	NO (vSAN)

- (*1) Server Provisioning supported for Broadwell): Server LID, Power Control, Boot Options, and Deploy ESXi host to datacenter/cluster, Replace ESXi host in vCenter (only same source and target firmware version). When replacing an ESXi host, the source and target firmware versions must be the same.
- (*2) "Deploy ESXi host to datacenter/cluster" and "Replace ESXi host in vCenter " are managed by VCF.
- (*3) vSAN info for primary vCSA workload domain hosts and onboard. No vSAN info is provided for non-primary vCSA workload domains.

Supported software

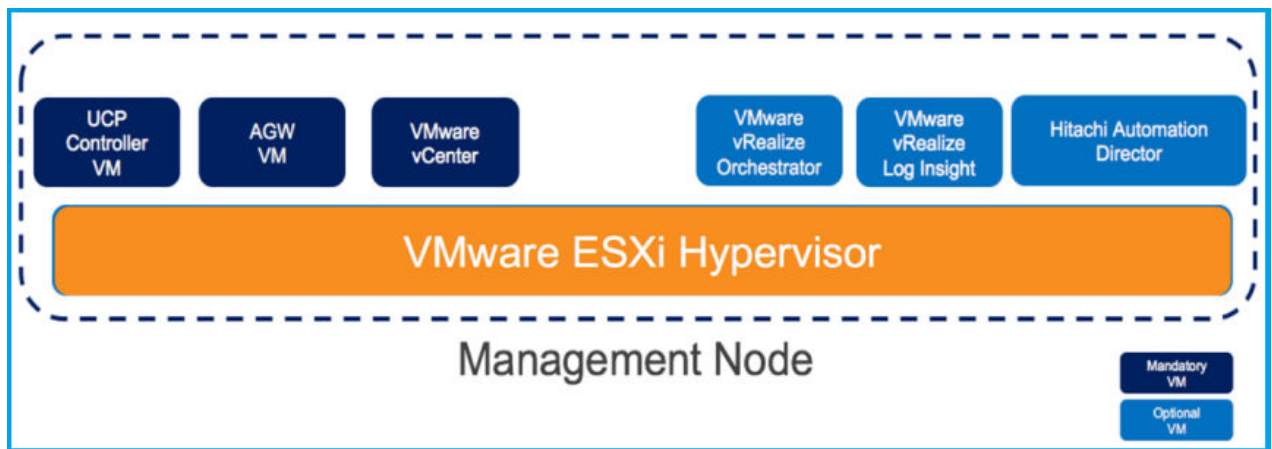
The UCP Advisor environment can include the following software programs. Prior to deploying, verify that the required software is installed and configured.

Mandatory Software	
Software	Version
VMware ESXi	6.5 U1 (Build 5969303)
VMware vCenter Server Appliance	6.5 U1 (Build 5973321)
VMware Tools	10.1.7.5541682
VMware PowerCLI	6.5.2.6268016
UCP Advisor Controller	2.0.0.1528
UCP Advisor Gateway	5.2.0.2971
Java	8u151 64 bit
Python	2.7.6 (64-bit)
Redis	3.0.503
OpenSSH	7.5.1

VMware Software (optional)	
Component	Version
vSAN	6.6.1
vRealize Orchestrator (vRO)	7.3
vRealize Log Insight (vRLI)	4.5

Hitachi Software (optional)	
Hitachi Vantara	Version
Hitachi Automation Director	8.5.3
Hi-Track	8.0 or greater

The software architecture and how it is deployed in a management node is shown in the following figure.



UCP Advisor Controller and Gateway VMs

UCP Advisor is comprised of the following virtual appliances.

The following table shows the amount of resources assigned to the UCP Advisor Controller vm.

Resources	Server and quantity (default configuration at deployment)
Operating System	Windows Server 2016
RAM	20 GB
CPU	6 vCPUs (default)
Disk	250 GB (thin provisioned disk)
Network	1 vNIC (connect to Management VLAN VMXNET3)
Supported virtualization host	ESXi 6.5 Update-1

The following table shows the amount of resources assigned to the UCP Advisor Gateway virtual machine.

Resource	Quantity
Operating System	CentOS 7.3
RAM	6 GB
CPU	2 vCPUs (default)
Disk	40 GB (thin provisioned disk)

Resource	Quantity
Network	1 vNIC (connect to management VLAN VMXNET3)
Supported virtualization host	ESXi 6.5 Update-1

Supported browser

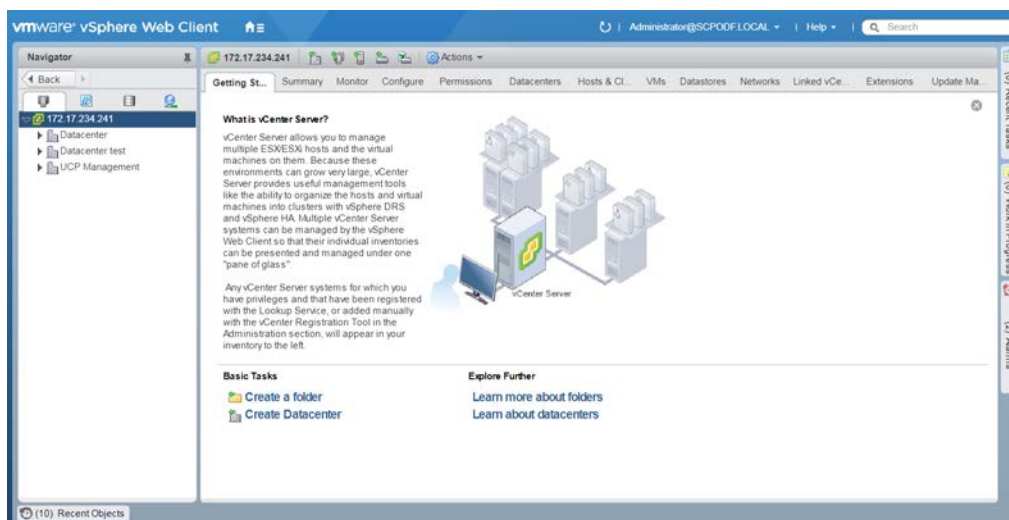
Hitachi UCP Advisor supports Chrome browser for Windows, Mac, and Linux. The required version is 60.0 and later.

Accessing UCP Advisor

You access UCP Advisor from the VMware vSphere Web Client.

Procedure

1. Log on to the VMware vSphere Web Client using your vCenter Administrator credentials.



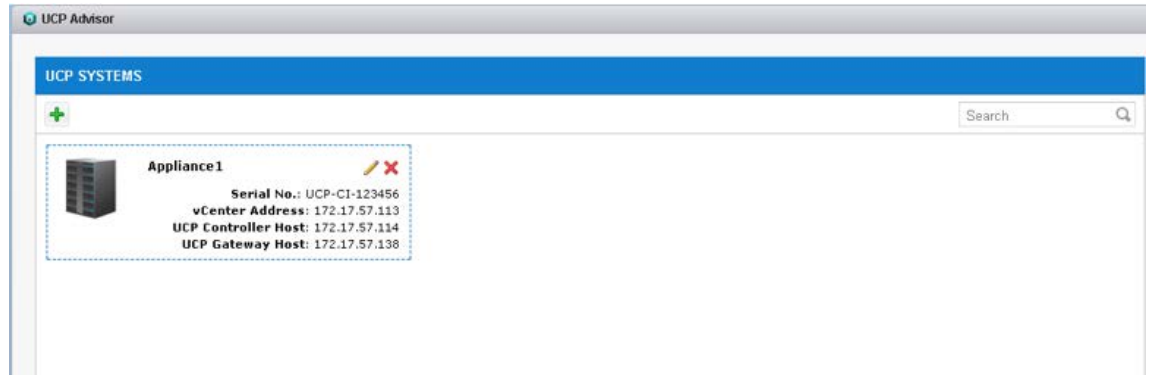
2. From the **Home** menu, located in the upper left area of the **vSphere Web Client** window, select **UCP Advisor**.
3. If a UCP System has not yet been registered, or if the devices you want to access have not yet been onboarded, you will need to perform these tasks now.



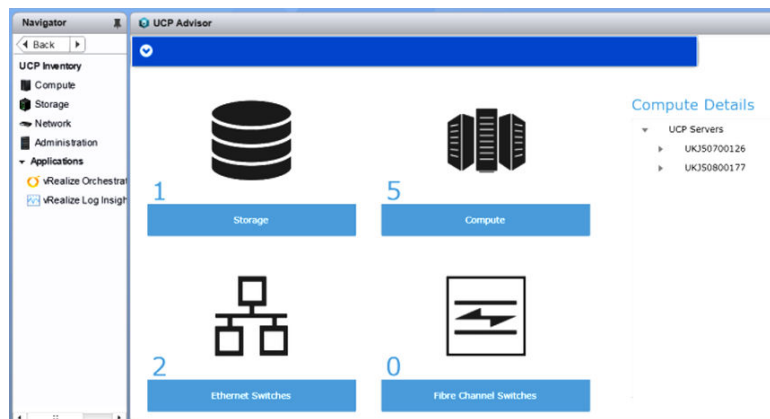
Note: In most cases, the UCP system and the devices required by your site will already have been registered and onboarded during the pre-deployment configuration. If you do not see the appliances that you expect, or if you need to add a new one, you can follow the procedure described in: [Registering a UCP system \(on page 69\)](#). If you need to onboard additional devices, see [Automatically adding resources using a](#)

[CSV file \(on page 73\)](#) or [Manually adding devices \(on page 75\)](#) and add the necessary devices before continuing with the next steps.

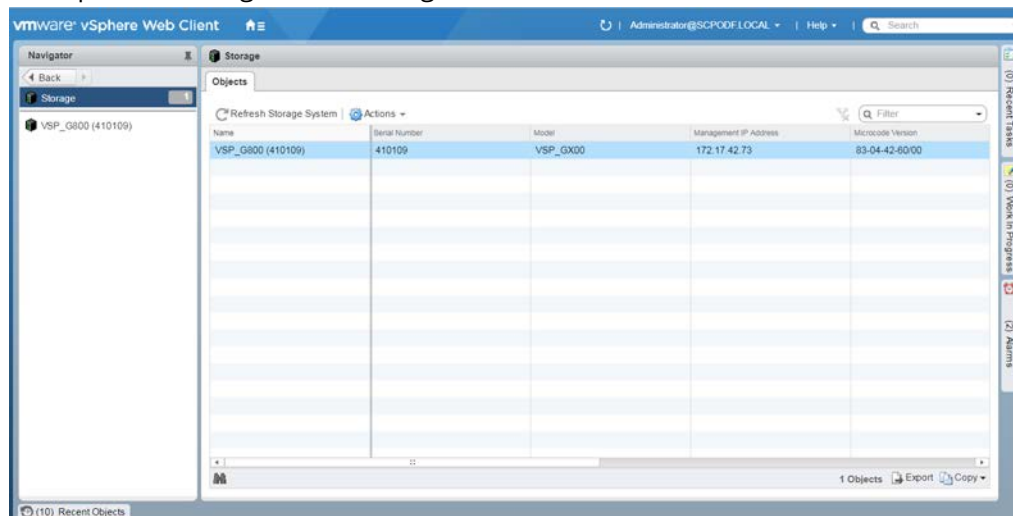
4. Select the UCP System appliance that you want to access.







5. You are provided a choice of compute, storage, or network devices on the **UCP Advisor** window.



6. Click on the icon representing the type of devices you want to manage. Depending on the type of device you select, you see a listing of available devices. Following is an example of a storage device listing.





7. In the **Navigator** window (or listing of devices shown on the right), double-click on the device you want to access. As an example, the management window for the selected storage system device is shown with the **Manage** tab selected.

VSP_G1000 (56919)     Actions ▾

Summary **Manage**

Datstores Parity Groups Logical Units Storage Pools Ports Host Groups Resource Groups

  Search ▾

Name	LUNs/NFS Export	ESXi Host	Used Capacity	Free Capacity	Total Capacity	Status
autodatastore1	5202	172.17.234.201	18.00 MB	0.73 GB	0.75 GB	mounted
Test-Shreya1	5043	172.17.234.201	10.45 GB	4.30 GB	14.75 GB	mounted
beixing	5075	172.17.234.201	0.70 GB	4.05 GB	4.75 GB	mounted
ArvinsDatasto...	5072	172.17.234.201	18.00 MB	0.73 GB	0.75 GB	mounted
Shreya-Test	5074	172.17.234.201	64.78 GB	34.97 GB	99.75 GB	mounted

« < Page 1 of 1 > »

Displaying items 1 - 5 of 5

- Click the **Summary** tab to get general information about the device, or click the **Manage** tab to access various management options.

Chapter 2: Managing storage resources

Hitachi UCP Advisor dynamically allocates storage resources to virtual machines or hosts in the UCP Advisor environment.

Storage device inventory

You can manage storage systems configured in your UCP Advisor environment.

Click the Summary tab to access details regarding the currently selected storage system.

The screenshot displays the 'Summary' tab for a storage device identified as 'VSP_G1000 (56919)'. The interface includes a 'Summary' tab and a 'Manage' tab. The 'Summary' tab is active, showing a summary of the device's capacity and a table of recent events.

Capacity Summary:

Capacity	Value
Used Capacity	8.43 TB
Free Capacity	26.27 TB
Total Capacity	34.70 TB

Event Log:

Event ID	Description	Severity	Component Type	Timestamp
21804f	RIO path closed	MODERATE	DKC_ENVIRONMENT	6/30/2016 11:07:39 AM
7c0b00				7/16/2017 4:07:37 AM
21804f	RIO path closed	MODERATE	DKC_ENVIRONMENT	7/16/2017 4:05:42 AM
ffef00	Rebooted without volati...	SERVICE	SM	5/31/2016 1:10:08 PM
efc1e0	Correction access occur...	SERIOUS	DRIVE	11/11/2016 10:18:31 AM
21800f	RIO path closed	MODERATE	DKC_ENVIRONMENT	1/20/2017 8:14:02 AM
73ff00				5/29/2016 11:39:13 PM

The following details are provided on the Summary tab:

Model:

Identifies the model number of the storage device.

Serial Number:

Shows the serial number for the selected storage device.

Management IP Address:

Shows the management IP address.

Firmware:

Shows the current firmware level for the device.

Status:

Provides the current status for the device.

Capacity:

Shows the used, free, and total capacity for the storage device.

Below the summary details, is a list of events for the selected storage device that you can use to determine how the device is functioning and to see if any errors have occurred.

Managing datastores

You can create, expand, delete, mount, and unmount datastores.

Managing a datastore includes the following tasks:

- Provisioning a datastore: Allows the allocation of space to VMs based upon available free space.
- Expanding a datastore: Enables expansion of an existing datastore according to a specified size.
- Mounting a datastore: Mounts the selected datastore.
- Unmount a datastore: Unmounts the selected datastore.
- Deleting a datastore: Removes a datastore from all hosts having access to the datastore.

Provisioning a datastore

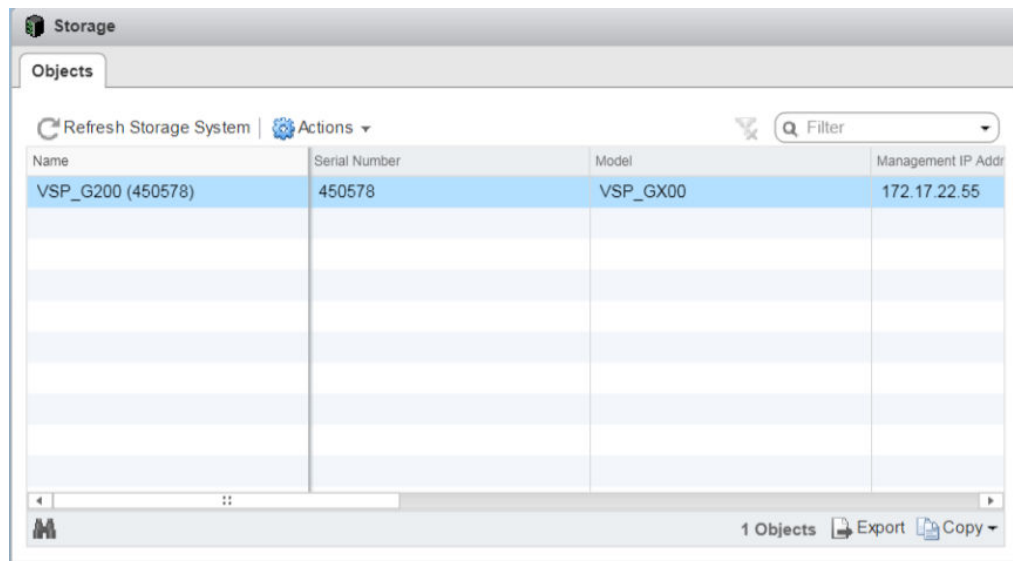
You can provision a new Virtual Machine File System (VMFS) datastore to create a logical container of your virtual machines. You can create, expand, mount, unmount and delete datastores. When creating a datastore, UCP Advisor automatically creates an associated LU that must be removed when a datastore is deleted.

Before you begin

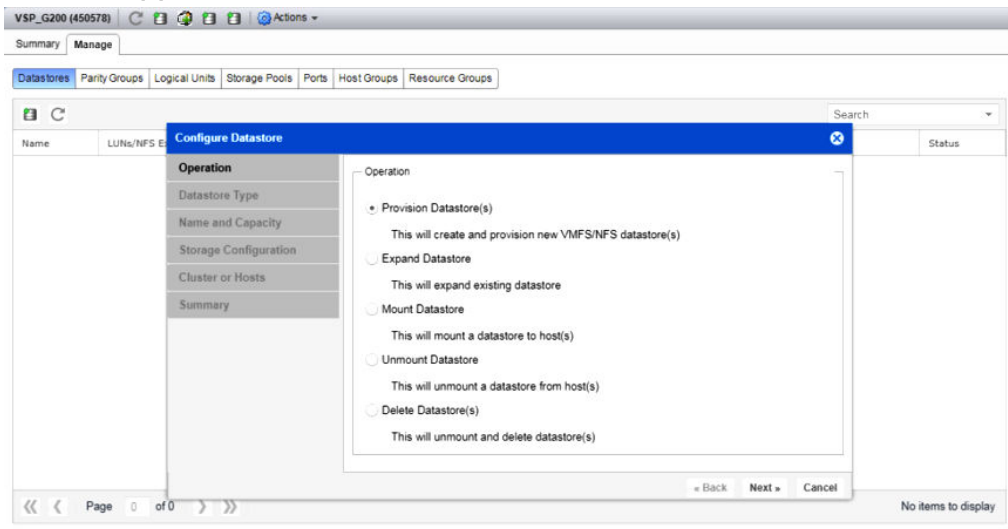
Make sure the storage device is onboarded in UCP Advisor and that the zoning and host group configuration in place.

Procedure

1. In the **Storage Objects** window, double-click the storage system with the datastore to be provisioned. As an alternative, you can configure a datastore by clicking the **Datastores** option under the **Configure Virtual/Logical Resources** banner in the upper area of the **UCP Advisor** main window.



2. On the **Datastores** tab, click **Configure Datastore**, then click **Provision Datastore(s)**.



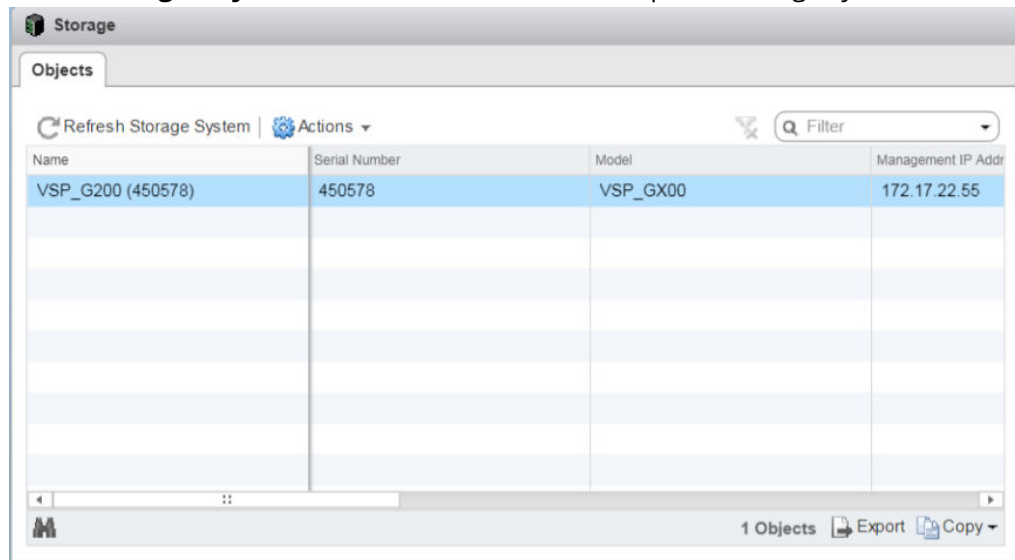
3. Click **Next**.
4. Select **Datastore Type** (VMFS Datastore is currently the only choice).
5. Select **Single Datastore Creation** or **Multiple Datastore Creation**.
6. Specify **Name** and **Capacity**.
7. Select **Storage System** and **Storage Pool**.
8. Select **ESXi Cluster** or **Hosts**.
9. Review the settings in the **Summary** window.
10. Click **Finish**.

Expanding a datastore

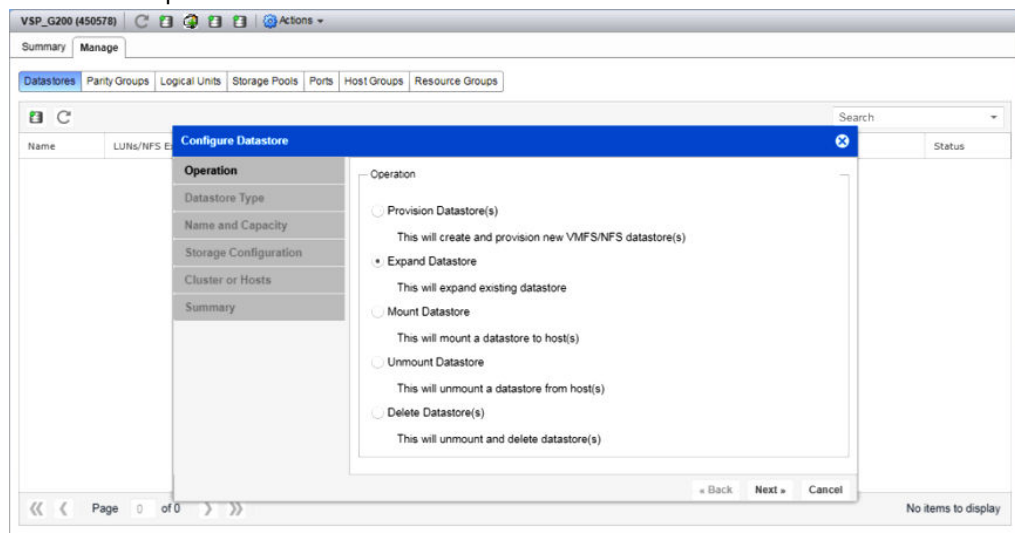
You can expand a datastore to increase the allocated capacity.

Procedure

1. In the **Storage Objects** window, double-click the required storage system.



2. On the **Datastores** tab, click the **Configure Datastore** icon, then select the **Expand Datastore** option.



3. Select **Datastore**.
4. Specify additional datastore **Capacity**.
5. Click **Finish**.

Mounting and unmounting a datastore

You can specify the ESXi host(s) on which to mount or unmount a datastore.

Procedure

1. In the **Objects** window, select the required storage system, then click the **Manage** tab.

VSP_G1000 (56919) Summary Manage

Datasources Parity Groups Logical Units Storage Pools Ports Host Groups Resource Groups

Search

Name	LUNs/NFS Export	ESXi Host	Used Capacity	Free Capacity	Total Capacity	Status
Test-Shreya1	5043	172.17.234.201	10.45 GB	4.30 GB	14.75 GB	mounted
belxing	5075	172.17.234.201	0.70 GB	4.05 GB	4.75 GB	mounted
ArvinsDatasto...	5072	172.17.234.201	18.00 MB	0.73 GB	0.75 GB	mounted
SandyDS-61	5087	172.17.234.201,172.17...	0.95 GB	198.80 GB	199.75 GB	mounted
ds-sandy-test	5079	172.17.234.201	18.00 MB	0.73 GB	0.75 GB	mounted
SandyDS_64	5061	172.17.234.201	0.95 GB	198.80 GB	199.75 GB	mounted
Shreya-Test	5074	172.17.234.201	64.67 GB	35.08 GB	99.75 GB	mounted
SandyDS-62	5082	172.17.234.201,172.17...	0.95 GB	198.80 GB	199.75 GB	mounted
SandyDS40	5053	172.17.234.202	0.95 GB	38.80 GB	39.75 GB	mounted
SandyDS-60	5089	172.17.234.201,172.17...	0.95 GB	198.80 GB	199.75 GB	mounted
Sandy_DS1	5058	172.17.234.201	0.00 MB	0.00 MB	0.00 MB	unmounted

« Page 1 of 1 » Displaying items 1 - 11 of 11

- On the **Datasources** tab, click the **Configure Datastore** icon.

VSP_G1000 (56919) Summary Manage

Datasources Parity Groups Logical Units Storage Pools Ports Host Groups Resource Groups

Configure Datastore

Name **Operation**

Test-Shreya1 Datastore

belxing Cluster and Host

ArvinsDatasto... Summary

SandyDS-61

ds-sandy-test

SandyDS_64

Shreya-Test

SandyDS-62

SandyDS40

SandyDS-60

Sandy_DS1

Operation

☐ Provision Datastore(s)
This will create and provision new VMFS/NFS datastore(s)

☐ Expand Datastore
This will expand existing datastore

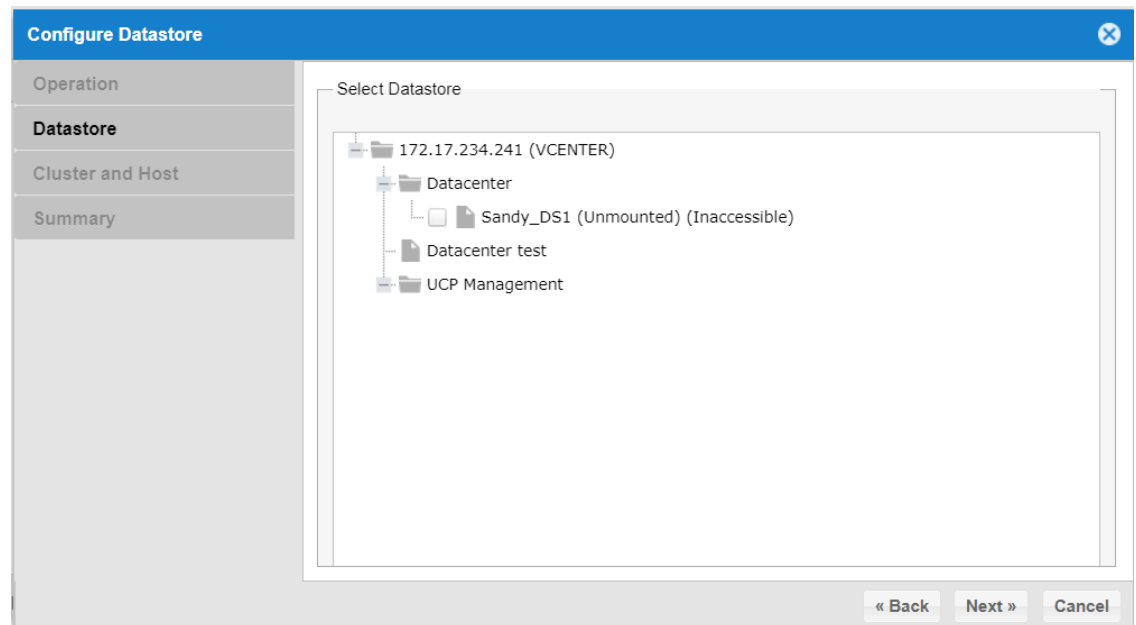
☒ Mount Datastore
This will mount a datastore to host(s)

☐ Unmount Datastore
This will unmount a datastore from host(s)

☐ Delete Datastore(s)
This will unmount and delete datastore(s)

« Back Next » Cancel

- To mount a datastore, select the **Mount Datastore** option, then click **Next**. The **Select Datastore** window appears where you can select the desired datastore from the provided tree structure.



4. Select the appropriate datastore, then click **Next**.
5. Click **Finish**.
To unmount a datastore, follow the same steps but select the **Unmount Datastore** option.

Deleting a datastore

You can delete a datastore to remove it from an ESXi host or cluster having access to this datastore.

Procedure

1. In the **Objects** window, select the required storage system, then click the **Manage** tab.

VSP_G1000 (56919)

Summary

Manage

Datstores

Parity Groups

Logical Units

Storage Pools

Ports

Host Groups

Resource Groups

Search

Name	LUNs/NFS Export	ESXi Host	Used Capacity	Free Capacity	Total Capacity	Status
Test-Shreya1	5043	172.17.234.201	10.45 GB	4.30 GB	14.75 GB	mounted
belxing	5075	172.17.234.201	0.70 GB	4.05 GB	4.75 GB	mounted
ArvinsDatasto...	5072	172.17.234.201	18.00 MB	0.73 GB	0.75 GB	mounted
SandyDS-61	5087	172.17.234.201,172.17....	0.95 GB	198.80 GB	199.75 GB	mounted
ds-sandy-test	5079	172.17.234.201	18.00 MB	0.73 GB	0.75 GB	mounted
SandyDS_64	5061	172.17.234.201	0.95 GB	198.80 GB	199.75 GB	mounted
Shreya-Test	5074	172.17.234.201	64.67 GB	35.08 GB	99.75 GB	mounted
SandyDS-62	5082	172.17.234.201,172.17....	0.95 GB	198.80 GB	199.75 GB	mounted
SandyDS40	5053	172.17.234.202	0.95 GB	38.80 GB	39.75 GB	mounted
SandyDS-60	5069	172.17.234.201,172.17....	0.95 GB	198.80 GB	199.75 GB	mounted
Sandy_DS1	5058	172.17.234.201	0.00 MB	0.00 MB	0.00 MB	unmounted

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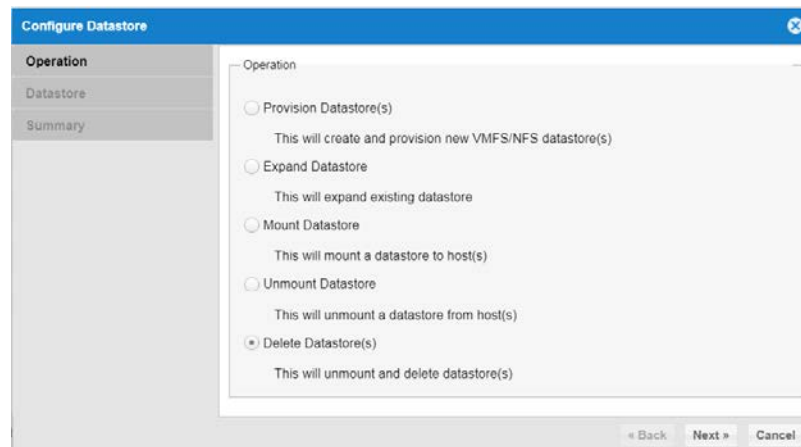
Page 1 of 1

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Displaying items 1 - 11 of 11

2. On the **Datastores** tab, click the **Configure Datastore** icon, then click the **Delete Datastore** option.



3. Select **Datastore(s)**.
4. Select the appropriate datastore(s) to delete from the tree, (if necessary, select the **Delete Datastore Logical Unit/NFS Export** check box to delete the logical unit associated with the datastore from storage), then click **Next**.
5. Click **Finish**.

Managing parity groups

You can create parity groups to prepare for future allocation of basic storage system volumes to ESXi hosts. You can also delete parity groups to free-up disk space when the disks in the parity group are no longer in use.

The Parity Groups inventory, shown below, lists existing parity groups, their capacity, and the number of LUs in each.

VSP_G200 (450578)

Actions

Summary

Manage

Datastores

Parity Groups

Logical Units

Storage Pools

Ports

Host Groups

Resource Groups

Search

Parity Group	Number Of Logical...	Used Capacity	Free Capacity	Total Capacity
1-2	28	6239.03 GB	514.85 GB	6753.88 GB
1-1	11	2159.02 GB	92.27 GB	2251.29 GB
1-3	23	5858.39 GB	895.48 GB	6753.88 GB

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Page

1

of 1

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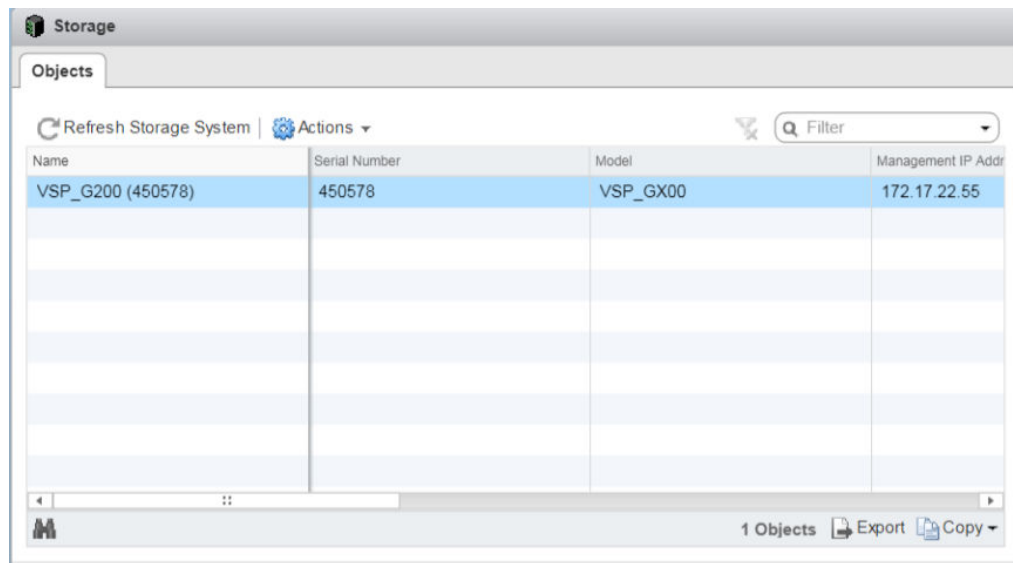
Displaying items 1 - 3 of 3

Creating a parity group

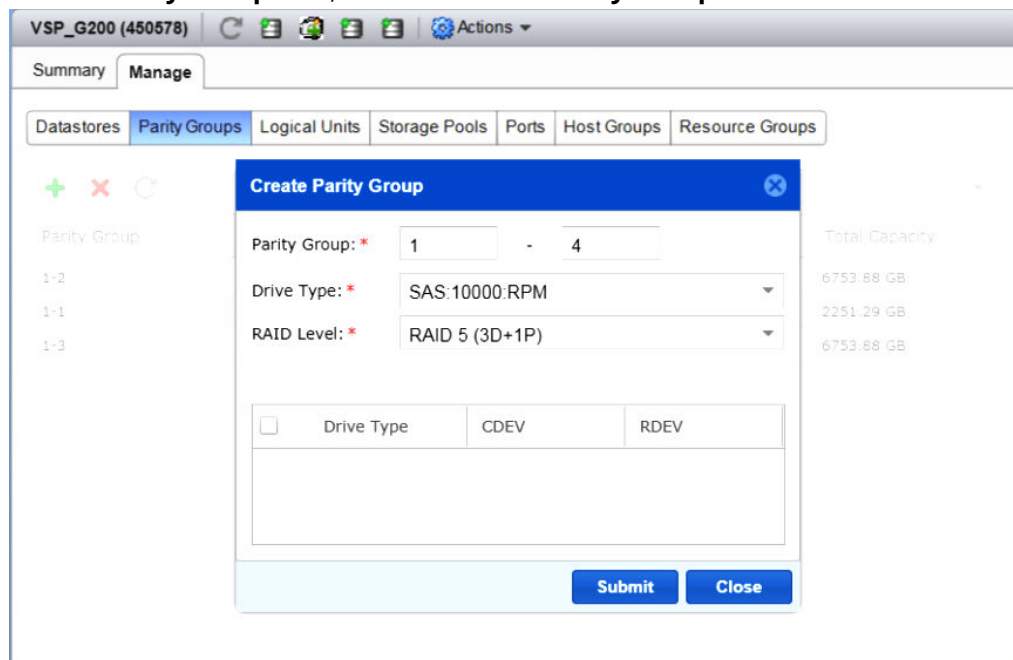
You can create parity groups for a set of physical drives that configure RAID in a storage system. A logical storage area extracted from a parity group is used as an LDEV (basic volume) that is used for allocation to hosts.

Procedure

1. In the **Objects** window, select the storage system where the parity group is to be added.



2. On the **Parity Groups** tab, click the **Create Parity Group** icon.



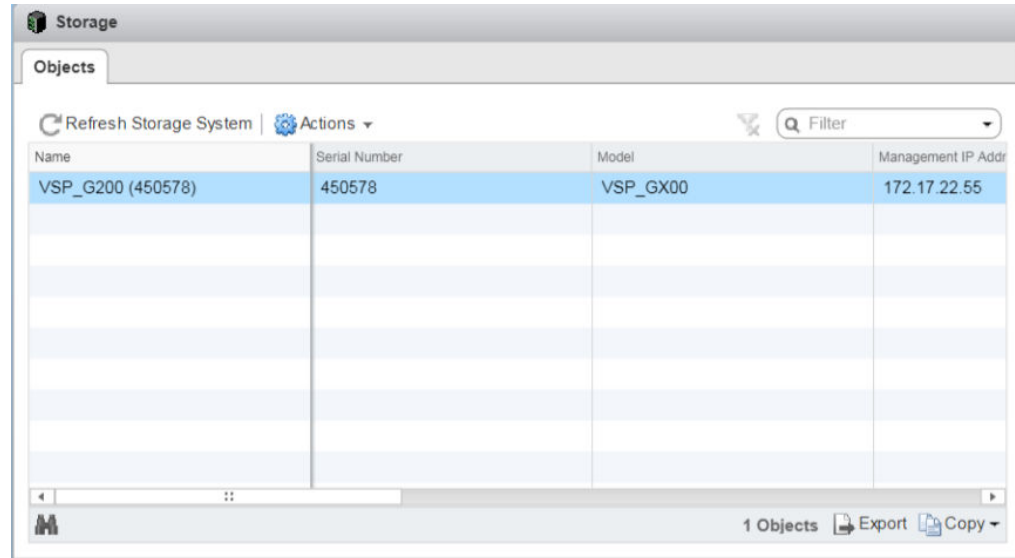
3. Specify the following:
 - **Parity Group:** Specify a number for the new parity group. For example, if the desired parity group number is 1 - 4, enter a 1 in the box on the left, and a 4 in the box on the right.
 - **Drive Type:** Select the type of drive from the pull-down list.
 - **RAID Level:** Select the RAID level from the list.
4. Click **Submit**.

Deleting a parity group

You can delete parity groups when they are no longer needed.

Procedure

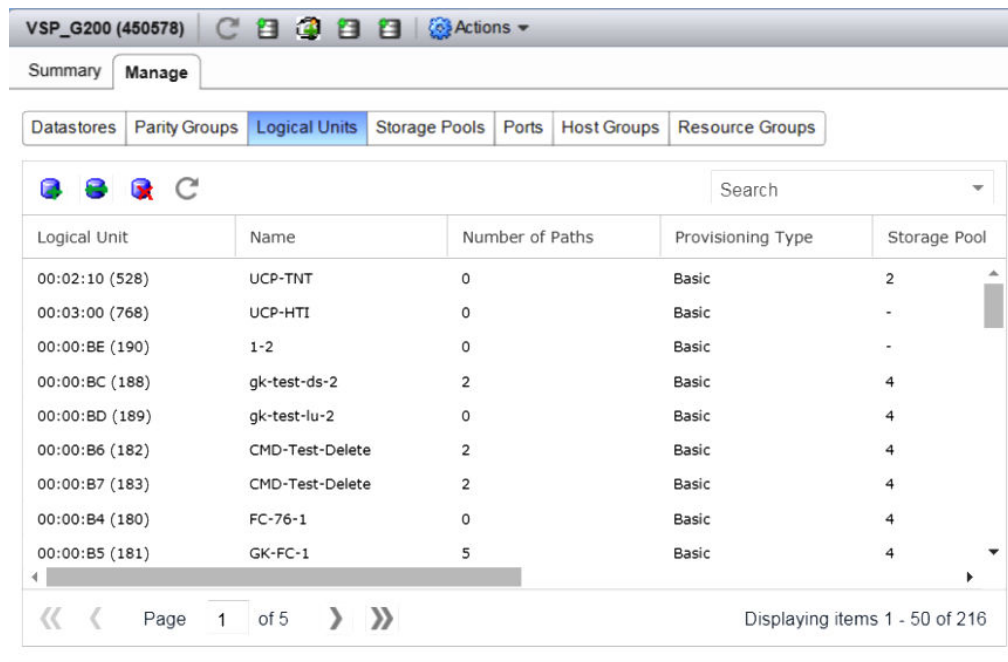
1. On the **Objects** tab, double-click the required storage system.



2. On the **Parity Groups** tab, select the parity group to be deleted.
3. Click the **Delete Parity Group** icon.
4. Click **Yes** to confirm deletion of the selected parity group.

Managing logical units

You can provision, expand, and delete logical units (LUs) and present them to VMware ESXi hosts from the Logical Units tab shown below.



Logical Unit	Name	Number of Paths	Provisioning Type	Storage Pool
00:02:10 (528)	UCP-TNT	0	Basic	2
00:03:00 (768)	UCP-HTI	0	Basic	-
00:00:BE (190)	1-2	0	Basic	-
00:00:BC (188)	gk-test-ds-2	2	Basic	4
00:00:BD (189)	gk-test-lu-2	0	Basic	4
00:00:B6 (182)	CMD-Test-Delete	2	Basic	4
00:00:B7 (183)	CMD-Test-Delete	2	Basic	4
00:00:B4 (180)	FC-76-1	0	Basic	4
00:00:B5 (181)	GK-FC-1	5	Basic	4

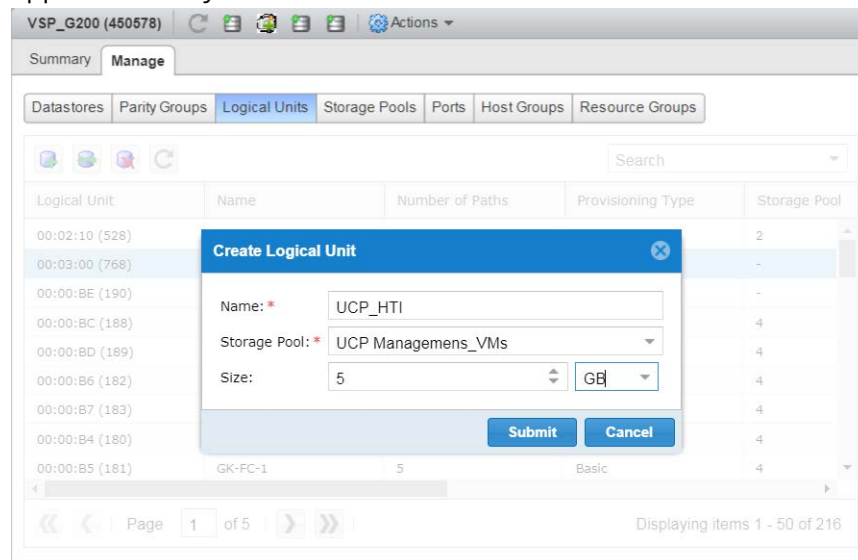
Page 1 of 5 | Displaying items 1 - 50 of 216

Creating a logical unit

You can create a logical unit on the storage system that an ESXi server or virtual machine can use for I/O operations.

Procedure

1. On the **Logical Units** tab, click **Create Logical Unit**. The Create Logical Unit box appears where you can enter the relevant details.



Create Logical Unit

Name: * UCP-HTI

Storage Pool: * UCP Managemens_VMs

Size: 5 GB

Submit Cancel

2. Specify the following:
 - Name: Enter the name of the LU for easy identification.
 - Storage Pool: Select a storage pool to create the LU.
 - Size: Specify the size of LU.

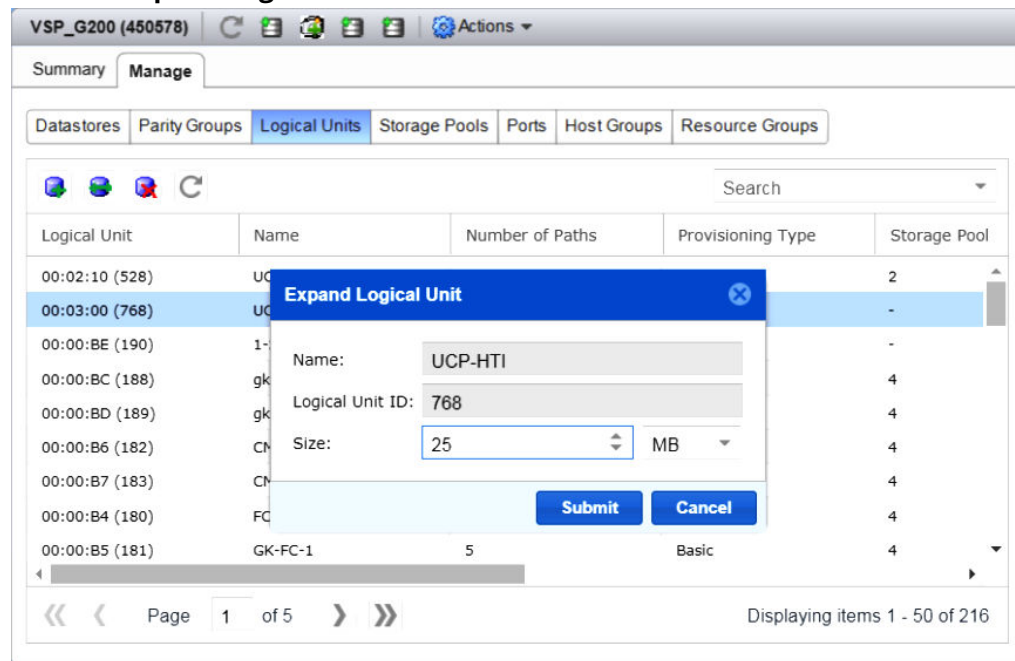
3. Click **Submit**.

Expanding and deleting a logical unit

You can expand a logical unit to increase storage capacity that can be assigned to a host.

Procedure

1. On the **Logical Units** tab, select a logical unit from the list.
2. Click the **Expand Logical Unit** icon.



3. Displays the following:
 - Name: Name of the logical unit.
 - Logical Unit ID: Specifies the logical unit ID.
 - Size: Enter the additional size for the logical unit.

4. Click **Submit**.

To delete a logical unit, select the logical unit in the listing, click on the **Delete Logical Unit** icon, then confirm the deletion.

Deleting a logical unit

You can delete a logical unit.

Procedure

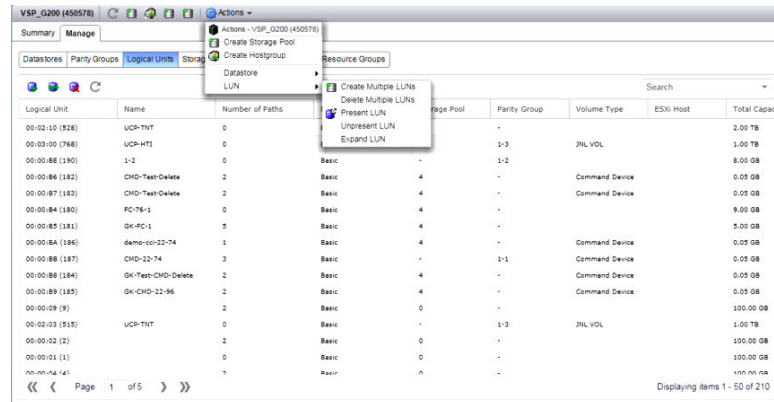
1. On the **Logical Units** tab, select a logical unit for deletion.
2. Click the **Delete Logical Unit** icon to mark the logical unit for deletion.
3. Verify the selected logical unit for deletion, then click **Yes**.

Creating multiple logical units

You can create multiple logical units to create datastores on ESXi hosts.

Procedure

1. From the **Actions** menu, select **LUN > Create Multiple LUNs**.



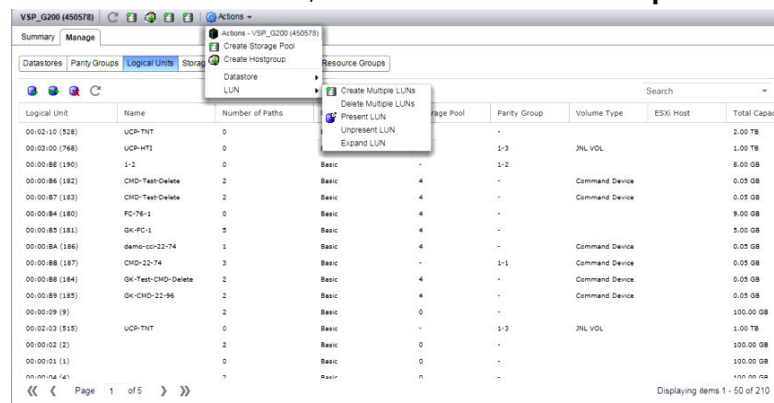
2. Select a storage system and storage pool.
3. Specify the number of LUs, LU name prefix, initial LU number, and LU size.
4. Click **Next**.
5. Click **Finish**.

Deleting multiple logical units

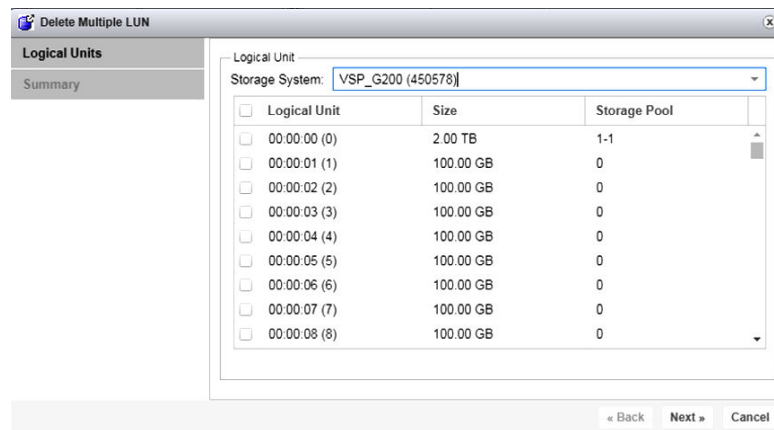
You can remove selected logical units from all accessible hosts.

Procedure

1. From the **Actions** menu, select **LUN > Delete Multiple LUNs**.



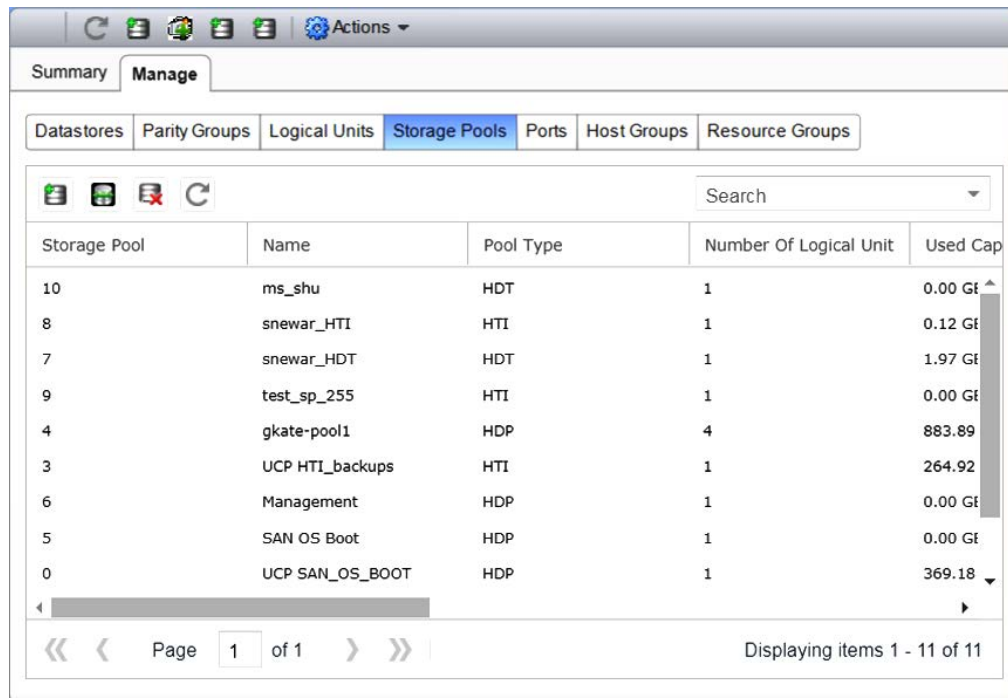
2. Select a storage system.
3. Select the logical units to delete.



4. Click **Next**.
5. Verify the logical unit(s) details in the "Summary Information" page and click **Finish**.

Managing storage pools

You can create, expand, and delete storage pools in storage systems from the Storage Pools tab, that is accessed from the Manage tab.

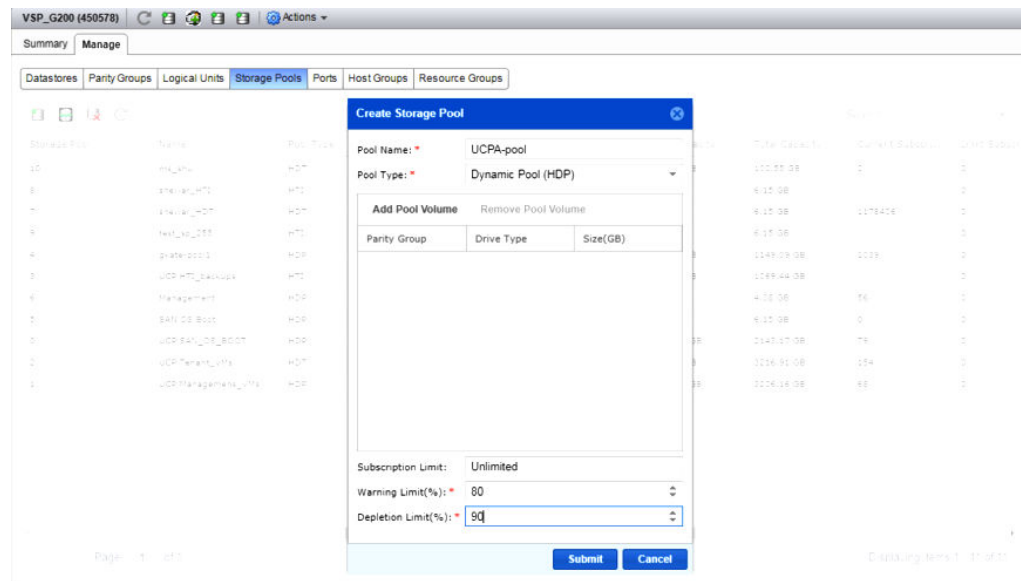


Creating a storage pool

You can create a storage pool with associated parity groups.

Procedure

1. On the **Storage Pools** tab, click the **Create Storage Pool** icon to create a storage pool on the selected storage systems.



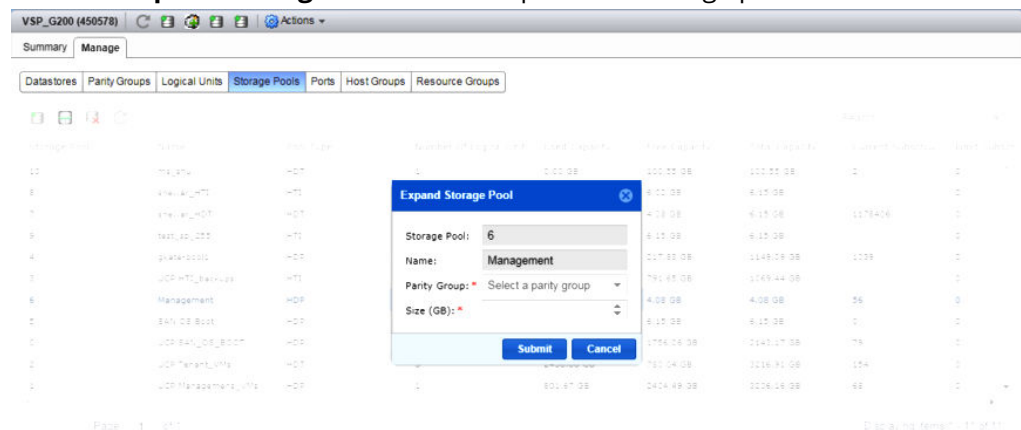
2. Specify the following in the **Create Storage Pool** box:
 - Pool Name: Name of the storage pool for easy identification.
 - Pool Type: Select the storage pool type.
 - Add Pool Volume: Select the required parity group and specify the pool size.
 - Subscription Limit: Specify the overprovisioning limit.
 - Warning Limit: Specify the storage pool warning threshold.
 - Depletion Limit: Specify the storage pool depletion threshold.
3. Click **Submit**.

Expanding a storage pool

You can expand a storage pool and increase its capacity.

Procedure

1. On the **Storage Pools** tab, select a storage pool.
2. Click the **Expand Storage Pool** icon to expand the storage pool.



3. In the **Expand Storage Pool** box, select a parity group and enter the additional capacity size for the expansion.
4. Click **Submit**.

Deleting a storage pool

You can delete storage pools from a storage system.

Procedure

1. On the **Storage Pools** tab, select a storage pool.
2. Click the **Delete Storage Pool** icon to delete the storage pool.
3. Verify that the correct storage pool is selected, then click **Yes** to delete the storage pool.

Reviewing storage ports

You can display ports and their current status when managing storage systems.

From the Ports tab, you can get port details for a selected storage system.

Port	Port Type	Speed	Port Security	Target WWN	iSCSI Target
CL6-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL5-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL4-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL3-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL2-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL1-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL8-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	
CL7-A	FC	8 Gbps	Enabled	50:06:0E:80:1...	

Managing host groups

You can create and delete host groups, present and unpresent LUs to host groups, and add or remove WWNs from host groups on the Hosts Groups tab, accessible from the Manage tab.

Host Group ID	Name	Port	Host Mode	Number Of Host	Number Of Logic...
1	C1_B4_HBA1_2	CL8-A	LINUX	1	1
2	C2_B3_HBA1_2	CL6-A	LINUX	1	4
0	7A-G00	CL7-A	VMWARE	0	0
0	3A-G00	CL3-A	VMWARE	0	0
0	4A-G00	CL4-A	VMWARE	0	0
0	5A-G00	CL5-A	VMWARE	0	0
0	6A-G00	CL6-A	VMWARE	0	0
6	sshah-test-hg	CL8-A	LINUX	1	0
1	C1_B1_HBA1_2	CL2-A	OPEN VMS	1	6
5	deleteit	CL2-A	UNKNOWN	1	0

Page 1 of 1
Displaying items 1 - 39 of 39

Creating a host group

You can create host groups for an ESXi host.

Procedure

1. On the **Host Groups** tab, click the **Create Host Groups** icon.

The 'Create Host Group' dialog box is shown with the following fields and options:

- Name:** *
- Target Port:** * Select a Target Port
- Initiator WWN:** *
- Host Type:** * ☐ VMware ☐ Microsoft on VMware ☒ Other
- Host Mode:** * Select a Host Mode
 - ☐ Mode No.
 - ☐ Option Description
 - ☐ 2 VERITAS DB EDITION ADV CLUSTER
 - ☐ 6 TPRLO
 - ☐ 7 AUTO LUN RECOGNITION

Buttons: Submit, Cancel

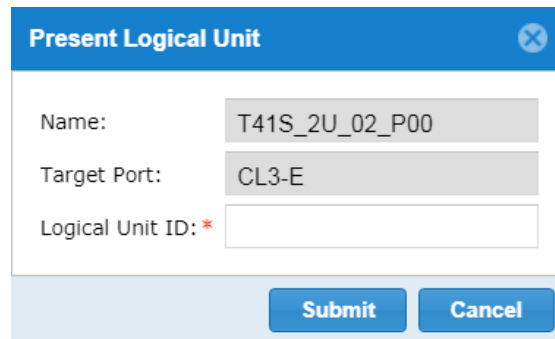
2. In the **Create Host Group** box, specify the following:
 - **Name:** The name of the host group for easy identification.
 - **Target Port:** Specify the target port.
 - **Initiator WWN:** Specify the initiator WWN in the format "xx:xx:xx:xx:xx:xx:xx:xx" (for example, 10:00:00:90:fa:f0:94:d9).
 - **Host Type:** Specify the host type (VMware, Microsoft on VMware, Other).
 - **Host Mode:** Specify the host mode.
3. Click **Submit**.

Presenting a logical unit to a host group

You can present a logical unit to a host group.

Procedure

1. On the **Host Groups** tab, select a host group, then click the **Present Logical Unit** icon.



The dialog box titled "Present Logical Unit" has a blue header bar with a close button. It contains three input fields: "Name:" with the value "T41S_2U_02_P00", "Target Port:" with the value "CL3-E", and "Logical Unit ID:" with a red asterisk and an empty text box. At the bottom right are "Submit" and "Cancel" buttons.

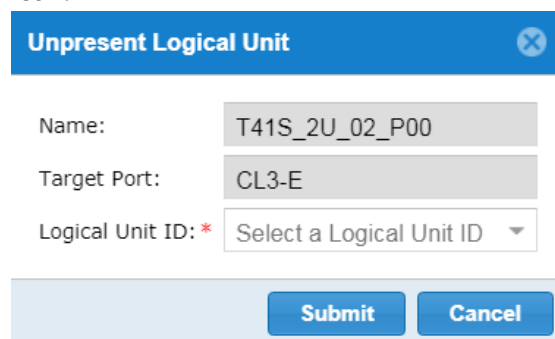
2. In the **Present Logical Unit** box, specify the following:
 - Name: The name of the host group for easy identification.
 - Target Port: The name of the target port.
 - Logical Unit ID: Enter the logical unit ID.
3. Click **Submit**.

Unpresenting a logical unit from a host group

You can unpresent a logical unit from a host group.

Procedure

1. On the **Host Groups** tab, select a host group, then click the **Unpresent Logical Unit** icon.



The dialog box titled "Unpresent Logical Unit" has a blue header bar with a close button. It contains three input fields: "Name:" with the value "T41S_2U_02_P00", "Target Port:" with the value "CL3-E", and "Logical Unit ID:" with a red asterisk and a dropdown menu showing "Select a Logical Unit ID". At the bottom right are "Submit" and "Cancel" buttons.

2. In the **Unpresent Logical Unit** box, specify the following:
 - Name: The name of the host group for easy identification.
 - Target Port: The name of the target port.
 - Logical Unit ID: Select the logical unit ID.
3. Click **Submit**.

Presenting a LUN to a VMware ESXi host

You can present a logical unit to an ESXi host and storage host group.

Procedure

1. From the **Actions** list, select **LUN**, then select **Present LUN** to present a logical unit to an ESXi host.

The screenshot shows the 'Present LUN' window. On the left, a sidebar contains 'Storage', 'ESXi Cluster or Hosts', and 'Summary'. The 'Storage' tab is active. The main panel displays two dropdown menus: 'Storage System' with the value 'VSP_G1000 (56919)' and 'Logical Unit' with the value '00:00:02 (2)'. At the bottom right, there are three buttons: '« Back', 'Next »', and 'Cancel'.

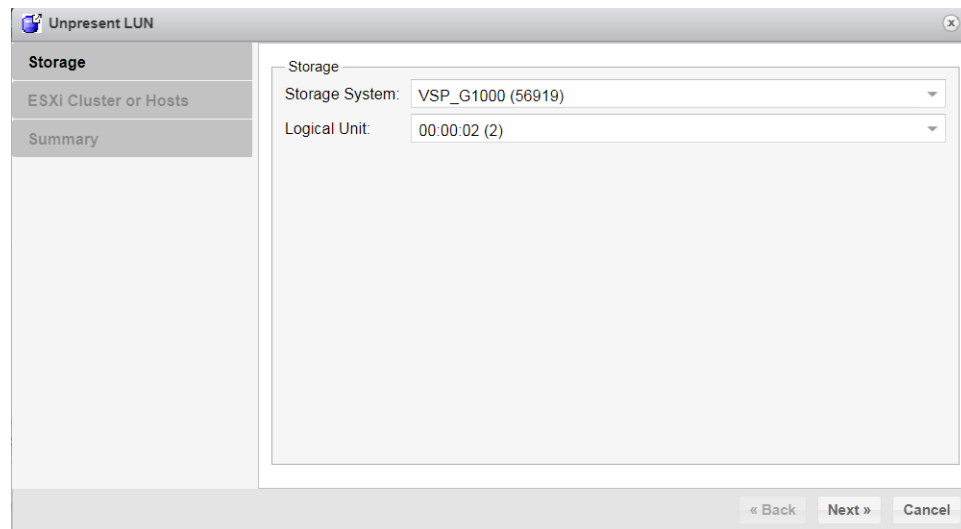
2. Select the **Storage System**.
3. Select the **Logical Unit** ID.
4. Click **Next**.
5. Select **ESXi Cluster or Hosts**.
6. Click **Next**.
7. Review the **Summary** window.
8. Click **Submit**.

Unpresenting a LUN from an VMware ESXi host

You can unrepresent a logical unit so that it is not visible to an ESXi host and other host groups.

Procedure

1. From the **Actions** list, select **LUN**, then select **Unpresent LUN** to unpresent a logical unit to an ESXi host.



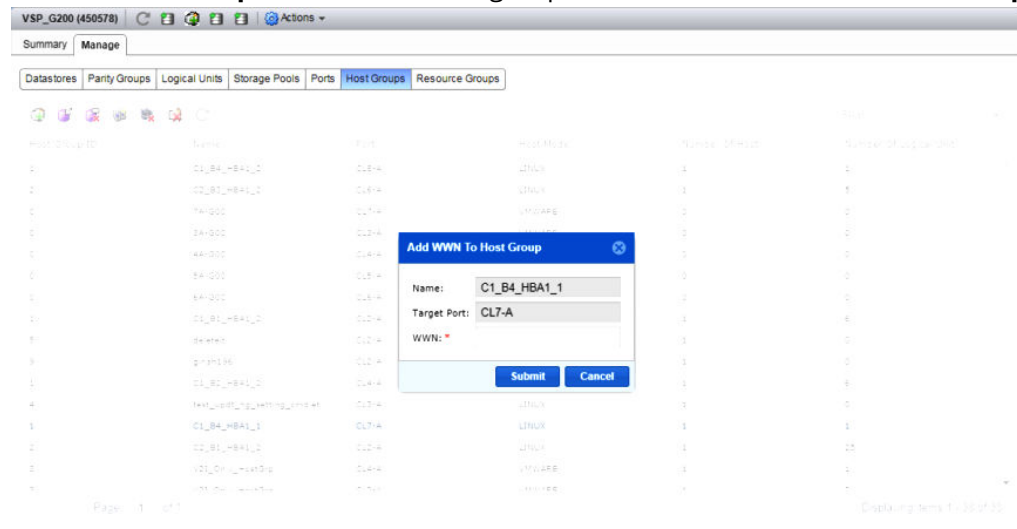
2. Select the **Storage System**.
3. Select the **Logical Unit ID**.
4. Click **Next**.
5. Select **ESXi Cluster or Hosts**.
6. Click **Next**.
7. Review the **Summary** window.
8. Click **Submit**.

Adding a WWN to a host group

You can add a WWN to an existing host group.

Procedure

1. On the **Host Groups** tab, select a host group, then click **Add WWN To Host Group**.



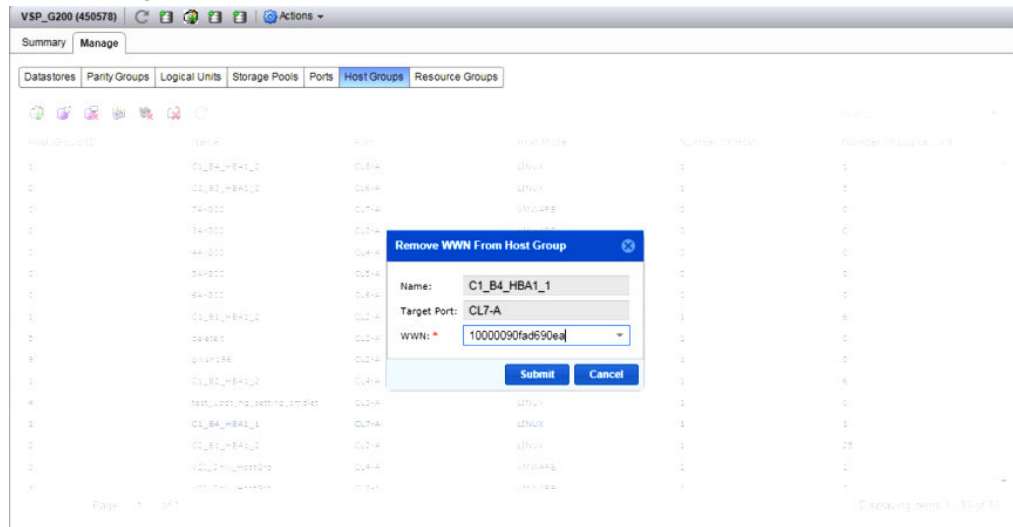
2. Enter the WWN using the following format: xx:xx:xx:xx:xx:xx:xx:xx (for example, 10:00:00:10:9b:1c:30:49) .
3. Click **Submit**.

Removing a WWN from a host group

You can remove a host from an existing host group.

Procedure

1. On the **Host Groups** tab, select the host group, then click the **Remove WWN From Host Group** icon.



2. In the **Remove WWN From Host Group** box, select the appropriate WWN from the list.
3. Click **Submit**.

Deleting a host group

You can delete a host group when it is no longer required.

Procedure






1. On the **Host Groups** tab, select the host group to be deleted, then click the **Delete Host Group** icon.
2. Click **Yes** to confirm the deletion.
The selected host group is deleted and is no longer shown in the list.

Reviewing resource groups

You can review a list of resource groups for a selected storage system.


Procedure

1. On the **Resource Groups** tab, review the resource group specifications.

VSP_G200 (450578)      Actions ▾

Summary **Manage**

Datastores Parity Groups Logical Units Storage Pools Ports Host Groups **Resource Groups**



Resource Group ID	Name	Virtual Device Type	Virtual Device ID	Meta Resource Serial
0	meta_resource	VSP GX00	450578	450578

« < Page 1 of 1 > »

Displaying items 1 - 1 of 1

Chapter 3: Managing compute nodes

Hitachi UCP Advisor provides pertinent information and allows you to manage operations for connected servers.

Compute node inventory

You can obtain a summary of pertinent details for a selected compute node by accessing the Summary tab from the UCP Navigator window.

The Summary tab presents general details for a selected server and the Manage tab provides even more detailed information regarding the various components for a server. For instance, you can see the serial number associated with a server, alerts, and the current operating status for its various components. In addition, you can also replace a server, modify a chassis or server label, or update the firmware.

The Summary tab, shown below, provides information about the server, its location, and its current state.

The screenshot shows the 'Summary' tab for a server with ID AR272400010. The interface includes a top bar with the server ID and an 'Actions' dropdown. Below this is a navigation bar with 'Summary' and 'Manage' tabs. A toolbar with various icons is positioned above a grid of server details. The details are organized into four columns: Serial Number, Host IP Address, BMC IP Address, Host OS, vCenter, DataCenter, Cluster, Status, BIOS Version, BMC Firmware Version, CMC Version, Chipset, No of CPU, Total Memory, Hard Disk Status, Power Status, LID Status, Voltage Status, Fan Status, Temperature Status, and WWN. A search bar is located at the bottom right of the details grid. Below the grid is a table of alerts with columns for Description, Severity, Alert Type, and Timestamp.

Serial Number:	Host IP Address:	BMC IP Address:	Host OS:	vCenter:	DataCenter:	Cluster:	Status:	BIOS Version:	BMC Firmware Version:	CMC Version:	Chipset:	No of CPU:	Total Memory:	Hard Disk Status:	Power Status:	LID Status:	Voltage Status:	Fan Status:	Temperature Status:	WWN:
AR272400010	172.17.234.202	172.17.234.102	N/A	172.17.234.241	Datacenter	Normal	Normal	3A07.H01	3.16.00	N/A	AST2500(A2)	2	393216 MB	Absent	ON	OFF	Normal	Normal	Normal	10:00:00:10:9B:1C:30:48, 10:00:00:10:9B:1C:30:49

Description	Severity	Alert Type	Timestamp
OEM Event 02 02 ac 11 ea...	Information	Login Info	10/11/17 06:18:30
OEM Event 01 02 ac 11 ea...	Information	Login Info	10/11/17 05:44:15
OEM Event 02 02 ac 11 ea...	Information	Login Info	10/11/17 06:08:12

The following summary details are provided:

Serial Number:

Serial number of the server.

BMC IP Address:

BMC IP address for the server.

Host OS:

ESXi host hypervisor version of the OS.

vCenter:

Indicates the vCenter to which the host is assigned.

DataCenter:

Indicates where the ESXi host resides.

Cluster:

If applicable, shows the cluster to which the ESXi host is assigned.

Status:

The status can be one of the following:

- Normal
- Maintenance
- Unreachable

Host IP Address:

IP address for the server.

BIOS Version:

Shows the current BIOS version.

BMC Firmware Version:

Shows the current BMC firmware version.

CMC Version:

Shows the current CMC version.

Chipset:

Chipset used by the server.

No of CPU:

Number of CPUs used by the server.

Total Memory:

Total available physical memory available to the server.

Hard Disk Status:

Shows the current status (present or absent) for the hard disk used by the server.

Power Status:

Shows whether the power is currently on or off.

LID Status:

Shows whether the location ID is on or off for the server.

Voltage Status:

Shows the current voltage status.

Fan Status:

Shows the current fan status.

Temperature Status:

Shows the current temperature for the server.

WWN:

Specifies the WWN for the server.

Alerts:

Shows server alerts with time stamps and severity.

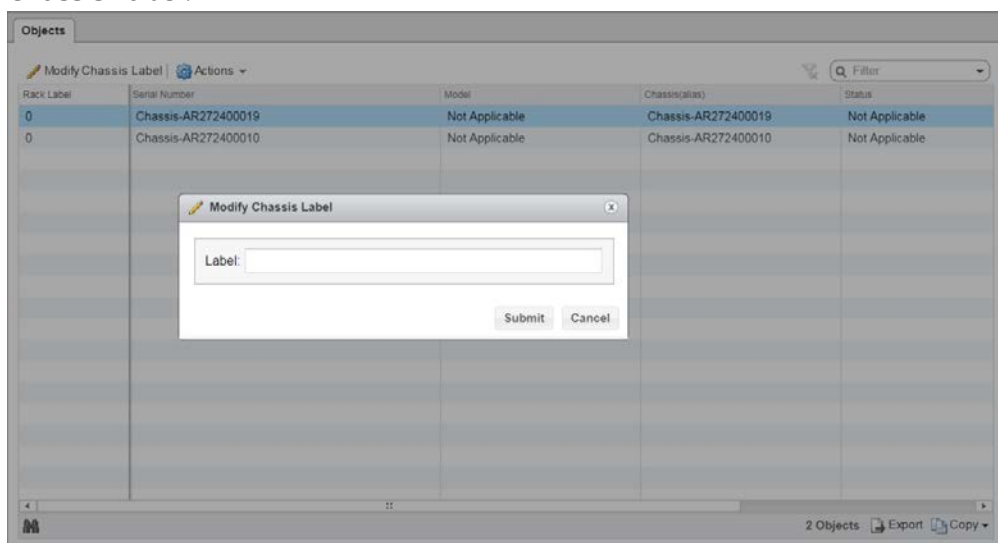
A collection of icons at the top of the Summary window allow you to quickly perform common operations that affect the performance of the server.

Modifying a chassis label

You can modify an existing chassis label.

Procedure

1. In the Advisor window, click the **Compute** icon.
2. In the **Objects** window, select the chassis you want to modify, then click **Modify Chassis Label**.



3. Enter the new chassis label name and click **Submit**.

Managing compute servers

You can obtain detailed, component-level information, for a selected server by accessing the Manage tab from the UCP Navigator window. In addition to the information provided from the Manage tab, you can also perform a number of management operations from the Actions list.

From the Manage tab, you can access detailed information regarding a server:

- CPU: Shows details about the CPU including model, manufacturer, frequency, and status.
- FRU: Shows details regarding the chassis and its components.
- FAN: Shows details about the system fans and their operating parameters.
- Temperature: Shows the temperature of components based on their location and provides other operational thresholds.

- Voltage: Shows the voltage usage of components based on their location and provides other operational thresholds.
- Memory: Shows available memory, frequency, and its current status.
- vSAN Datastores: Shows various details regarding the vSAN datastores associated with the server.

Replacing a compute server

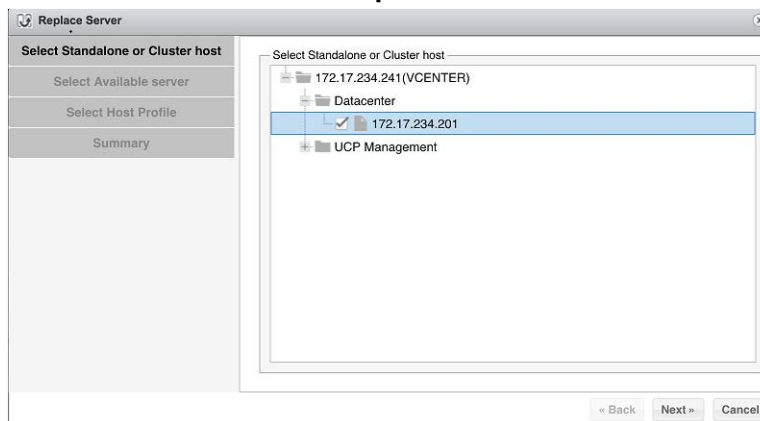
You can replace an existing ESXi host in a VMware cluster with a new server. The storage settings are automatically updated so that the logical units used by the original host are presented to the newly replaced host and datastores (other than local) on the original host are presented to the newly replaced host.

Before you begin

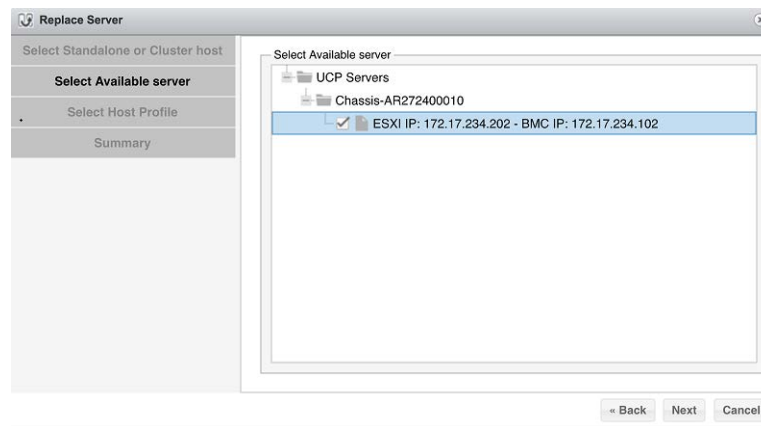
- Prior to replacing a compute server, you must set up the ESXi host that is to be used in place of the server you are replacing and prepare an appropriate host profile.
- Ensure that the server to be replaced is present in the vCenter inventory.
- For Broadwell servers, make sure the firmware version of the source and target servers are the same.

Procedure

1. In the **UCP Advisor** window, click the **Compute** icon.
The currently active compute servers are listed in the **Navigator** window.
2. In the **Navigator** window, right-click on any server, then select the server you want to replace.
3. From the **Actions** list, click **Replace Server**.



4. Choose either a standalone or cluster from the hierarchy of servers shown in the server tree, then click **Next**.
5. Select the server to be replaced.



6. Select the ESXi host profile to use for the replacement server.
7. Click **Finish**.
The original server is replaced with the new server according to the selected host profile.

Modifying a compute server label

You can change the label currently assigned to a server to some other name.

Procedure

1. In the **UCP Advisor** window, click the **Compute** icon.
The currently active compute devices are listed in the **Navigator** window.
2. In the **Navigator** window, double-click the compute node, then select the server with the label you want to change.
3. From the **Actions** list, click **Modify Server Label**.
The **Modify Server Label** dialog appears.
4. Enter the modified server label and click **Submit**.
The label for the currently selected server is modified to reflect the newly entered name.

Upgrading server firmware

You can upgrade the server firmware to the latest level.

Before you begin

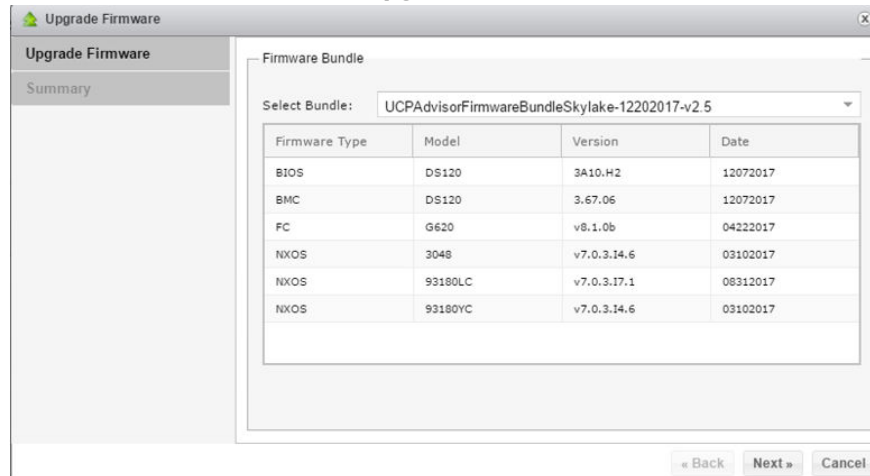
- Prior to upgrading the server firmware, you must first upload the appropriate firmware bundle from the Firmware tab, available from the Administration selection in the Navigator window.
- During a firmware update, the server goes through a power cycle and the UCP Advisor gateway VM is not accessible and so will fail. To avoid any disruption, migrate the UCP Advisor Gateway appliance to a different server before performing the firmware update.



Note: Firmware upgrades are not currently supported for UCP 2000, HC, and RS based Broadwell servers.

Procedure

1. In UCP Advisor, click the **Compute** icon.
2. In the **Navigator** window, select the server to be upgraded with the latest firmware.
3. From the **Actions** list, select **Upgrade Firmware**.



4. Select the firmware bundle to upload and click **Next**. The **Summary** window appears.
5. Confirm your selection and click **Finish**.

Managing power settings

You can turn power on or off, or reset the power for the server.

Procedure

1. In UCP Advisor, click the **Compute** icon.
2. In the **Navigator** window, select the server to be turned off or on.
3. Select **Actions > Power > On**. The **Power ON/Power OFF** window appears, requesting confirmation.
4. Click **Yes** to complete the operation.

Result

The selected server is either turned on or off.

If for some reason a server is not responding, you can choose the Reset option from the Actions list to see if that brings the server back on line.

Operating locator IDs

You can identify the location of servers by turning the server lamp on or off from UCP Advisor. These lamps are called locator IDs.

Procedure

1. In UCP Advisor, click the **Compute** icon.
2. In the **Navigator** window, select the server with the LID to be turned on or off.
3. From the **Actions** list, select **LID**, then select **On** or **Off**.

The **LID On/Power Off** window appears, requesting confirmation.

4. Click **Yes** to complete the operation.

Setting a boot option

You can specify the boot location where the initial operating system is loaded when a server is brought online.

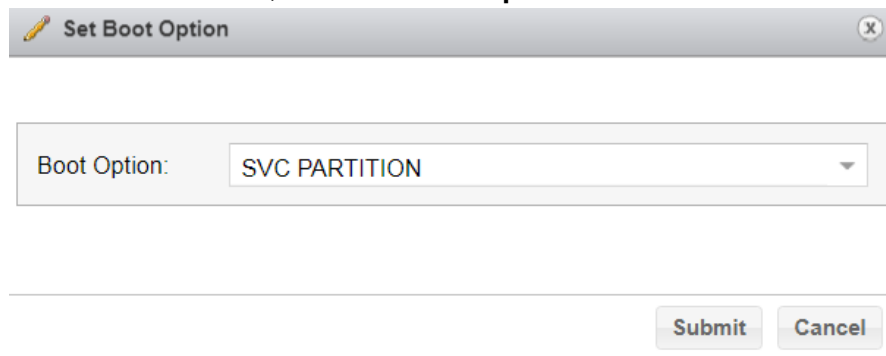
Before you begin

A valid boot location must contain the portions of an operating system required to bootstrap the system. The following options are available:

- Normal
- SVC Partition
- PXE
- CDROM
- HDD
- BIOS Setup
- FLOPPY
- HDD SAFE

Procedure

1. In UCP Advisor, click the **Compute** icon.
2. In the **Navigator** window, select the server for which you want to set the boot option.
3. From the **Actions** list, select **Set Boot Option**.



The screenshot shows a dialog box titled "Set Boot Option". Inside the dialog, there is a label "Boot Option:" followed by a dropdown menu. The dropdown menu is currently set to "SVC PARTITION". At the bottom right of the dialog, there are two buttons: "Submit" and "Cancel".

4. Select one of the available boot locations and click **Submit**.

Listing vSAN datastores

You can get a list of vSAN datastores associated with a given server.

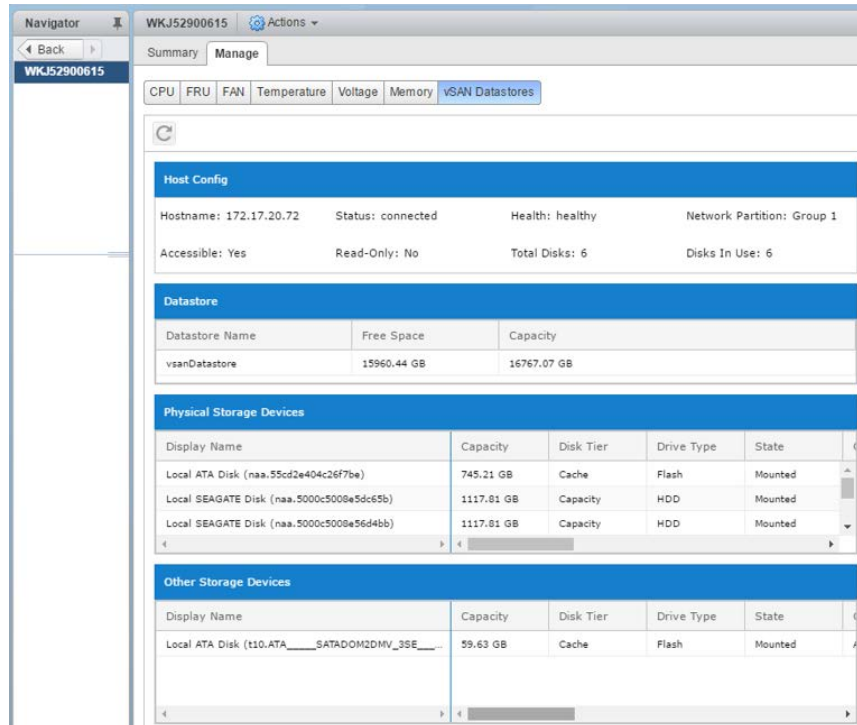
Before you begin

- In order for the vSAN datastore information to be available to UCP Advisor, vSAN must be brought online by following the VMware best practices.

- Ensure that the vSAN cluster exists in the same vCenter inventory where the appliance is registered.

Procedure

1. In UCP Advisor, click the **Compute** icon.
2. In the **Navigator** window, select the server for which you want to list the datastores.
3. Click the **Manage** tab, then click the **vSAN Datastores** tab.



Details regarding the selected server are provided as follows:

- **Host Config:** Shows the host name and other related details.
- **Datastore:** Shows the datastore name, free space, and capacity.
- **Physical Storage Devices:** Shows the physical storage devices associated with the datastore, including capacity, tier, drive type, state, and operational state.
- **Other Storage Devices:** Shows any other associated storage devices.

Deploying an ESXi host to a cluster or data center

You can deploy an ESXi host to an ESXi cluster or data center.

The following ESXi host configurations are supported:

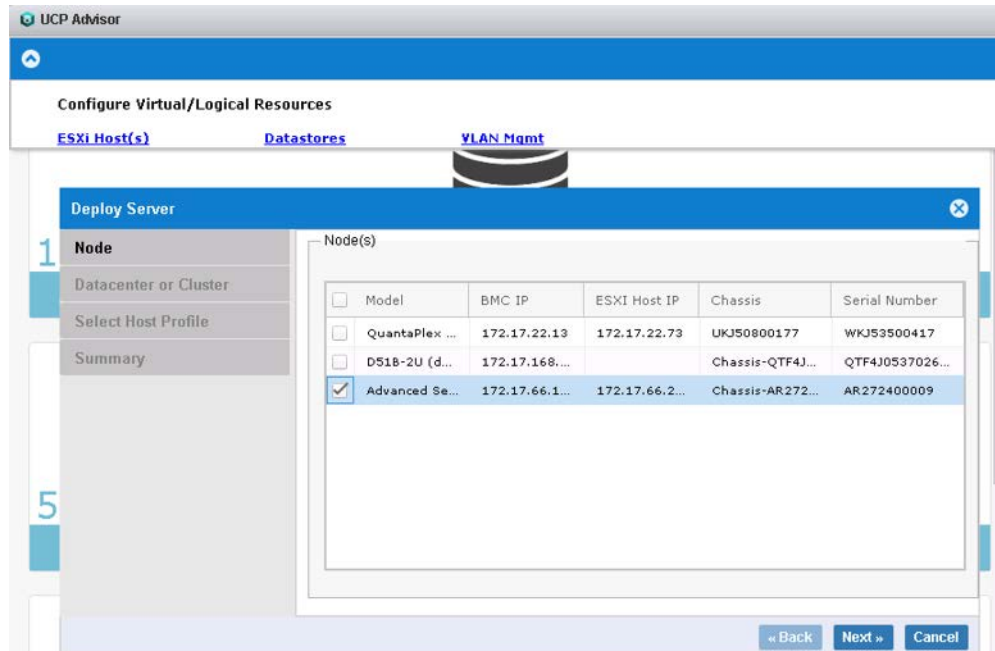
- Deployment of an ESXi host to an ESXi cluster.
- Deployment of an ESXi host to a datacenter.

Before you begin

Make sure any compute nodes that have been onboarded with ESXi credentials in UCP Advisor and ESXi host is not managed in any vCenter prior to deployment.

Procedure

1. From the **Configure Virtual/Logical Resources** banner at the top of the UCP Advisor main window, click **ESXi Host(s)**.



2. Select one or more servers to deploy.
3. From the **Datacenter or Cluster** tab, choose a cluster to deploy.
4. Provide the ESXi license key. (optional)
5. From the **Select Host Profile** tab, select a host profile. (optional)
6. Select **Finish** to deploy the ESXi host(s) to selected cluster.
After initiating the deployment of the host, the following tasks are performed:
 - Zone configuration is validated against the best practice for each of the hosts and a warning task event is generated if the zoning configuration is not comply with the best practice.
 - Host group configuration is validated against the best practice for each of the hosts and a warning task event is generated if the host group configuration does not comply with the best practice.
 - Common luns that are shared by other hosts in an existing cluster are identified, common luns are presented to the hosts, and the data stores are re-scanned for each of the hosts.
 - Selected host profiles are attached to each of the cluster hosts.

Chapter 4: Managing switches

UCP Advisor provides pertinent information and allows you to manage operations for connected Ethernet and Fibre Channel switches.



Note: Switch provisioning is not currently supported for UCP 2000, HC, and RS based Broadwell servers.

Managing Ethernet switches

You can obtain detailed, component-level information, for a selected Ethernet switch by accessing the Manage tab from the UCP Navigator window. In addition to the information provided from the Manage tab, you can also perform a number of management operations from the Actions list.

By using the UCP Navigator, you can access the Ethernet Switches window that provides a Summary tab that presents general details for a selected switch.

The Manage tab shows additional details and lets you manage ports and perform other management operations for a given switch:

- **Ethernet Ports:** Shows details about the Ethernet ports and allows you to specify which ports are to be managed.
- **VLAN:** Shows details regarding VLANs and allows you to add, delete, and specify ports associated with a VLAN.

From the Actions list, you can perform the following management task:

- **Upgrade Firmware:** Allows you to upgrade the firmware for a selected switch.

Ethernet switch inventory

You can obtain a summary of pertinent details for a selected Ethernet switch by accessing the Summary tab from the UCP Navigator window.

The Summary tab, shown below, provides information about the Ethernet switch, its location, and its current state.

Summary Manage

Serial Number: FDO21220X0D Switch Model: N9K-C93180YC-EX Power Status: On

Firmware: 7.0(3)I4(6) Status: UP Temperature: Normal

Fan Status: Normal IP Address: 172.17.234.23 Name: R1-93180YC-EX-A

Type: Ethernet Status: Normal

Alerts:

Description	Severity	Source	Alert Type
ETHPORT-5-IF_DOWN_NONE: Interface Ethernet1/14 is down ...	INFO	R1-93180YC-EX-A	Interface
ETH_PORT_CHANNEL-5-FOP_CHANGED: port-channel1: first o...	INFO	R1-93180YC-EX-A	port-channel
ETHPORT-5-IF_DOWN_NONE: Interface Ethernet1/26 is down ...	INFO	R1-93180YC-EX-A	Interface
ETHPORT-5-IF_RX_FLOW_CONTROL: Interface Ethernet1/41	INFO	R1-93180YC-EX-A	Interface

Alerts regarding the currently selected switch are shown at the bottom of the Summary window, indicating severity level, source, and type of alert. You can use this information to track alerts that are generated during the operation of the switch.

The following details are provided in the summary:

Serial Number:

Serial number of the switch.

Firmware:

Firmware version for the switch.

Fan Status:

Indicates the current fan status.

Type:

Indicates the type of switch (Ethernet).

Switch Model:

Indicates the switch model.

IP Address:

Indicates the IP address for the switch.

Status:

Shows the onboard status as follows:

- UP
- DOWN
- UNKNOWN
- UNREACHABLE

Power Status:

Shows the current power status (On or Off).

Temperature:

Shows the current temperature status as follows:

- Other
- Unknown
- Normal
- Warning
- Critical
- Fatal

Name:

Shows the switch name.

Upgrading Ethernet switch firmware

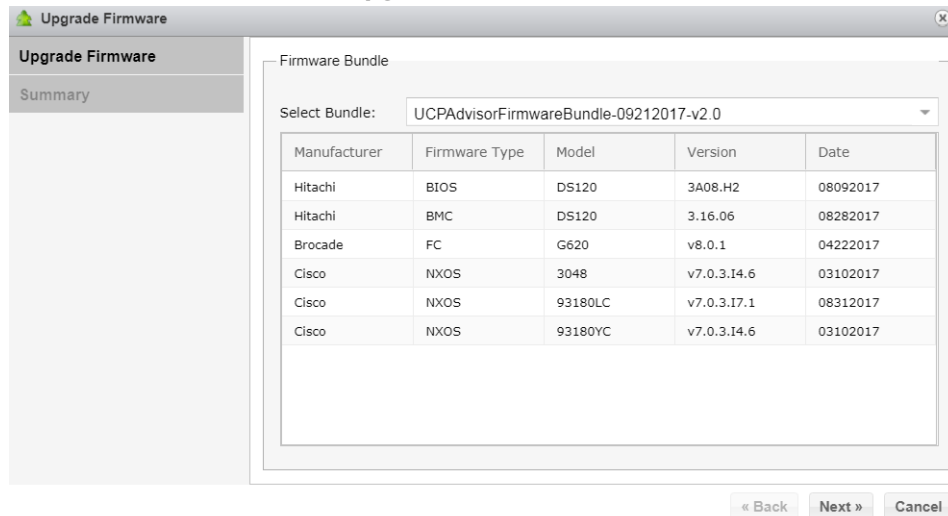
You can upgrade the firmware for a selected Ethernet switch. The firmware upgrade operation can take approximately 30 minutes to complete depending on the switch type.

Before you begin

Upload the appropriate firmware bundle from the Firmware tab, available from the Administration selection in the Navigator window.

Procedure

1. In the **UCP Advisor** window, click the **Ethernet Switches** icon. Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Ethernet Switches**, then select the switch with the firmware to be updated.
3. From the **Actions** list, click **Upgrade Firmware**.



4. Select the appropriate firmware bundle from the list, then click **Next**.
5. Check the information provided in the **Summary Information** window, then click **Finish**.

The firmware upgrade operation can take approximately 30 minutes to complete, depending on the switch type. After completion, the switch will reboot.

Result

If necessary, you can consult the entry in the **Recent Tasks** window to check that the firmware upgrade task has been completed and to determine any other relevant details regarding the task.

Backing up a switch configuration

You can perform a backup of the current Ethernet switch configuration as a profile that can subsequently be restored.

Procedure

1. In the **UCP Advisor** window, click the **Ethernet Switches** icon.
Depending on the available switches, you can either select **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Ethernet Switches**, then double-click the switch with the configuration you want to back up.
3. From the **Summary** tab, click the **Backup Profile** icon.
The **Backup Profile** window appears, requesting confirmation of the backup.
4. Click **Yes**. A message indicates that the current configuration profile is being saved.
The **Back up** window appears indicating whether the backup has been completed successfully.

Result

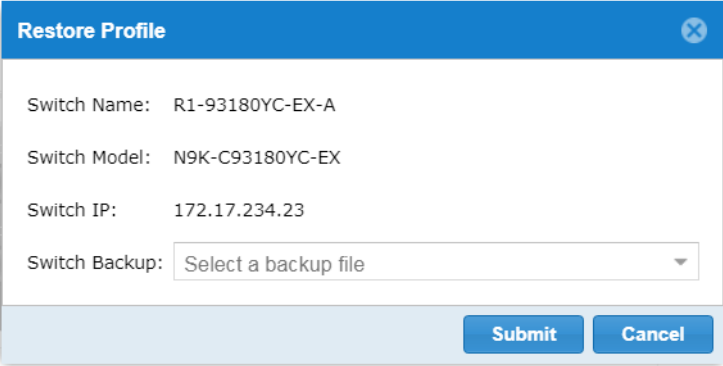
If necessary, you can consult the entry in the **Recent Tasks** window to check that the backup task has completed and to determine any other relevant details regarding the task.

Restoring a switch configuration

You can restore a previously backed up configuration profile for a selected Ethernet switch. The restore profile operation can take around 5 minutes to complete, depending on the backup size.

Procedure

1. In the **UCP Advisor** window, click the **Ethernet Switches** icon.
Depending on the available switches, you can either select **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Ethernet Switches**, then double-click the switch where you want to restore a previously backed up configuration profile.
3. On the **Summary** tab, click the **Restore Profile** icon.



Restore Profile

Switch Name: R1-93180YC-EX-A

Switch Model: N9K-C93180YC-EX

Switch IP: 172.17.234.23

Switch Backup:

Submit **Cancel**

4. Select the backup file to be restored from the list, then click **Submit** to initiate the backup restoration.

The restore profile operation can take around 5 minutes to complete depending on the backup size. After completion, the switch will reboot.

Result

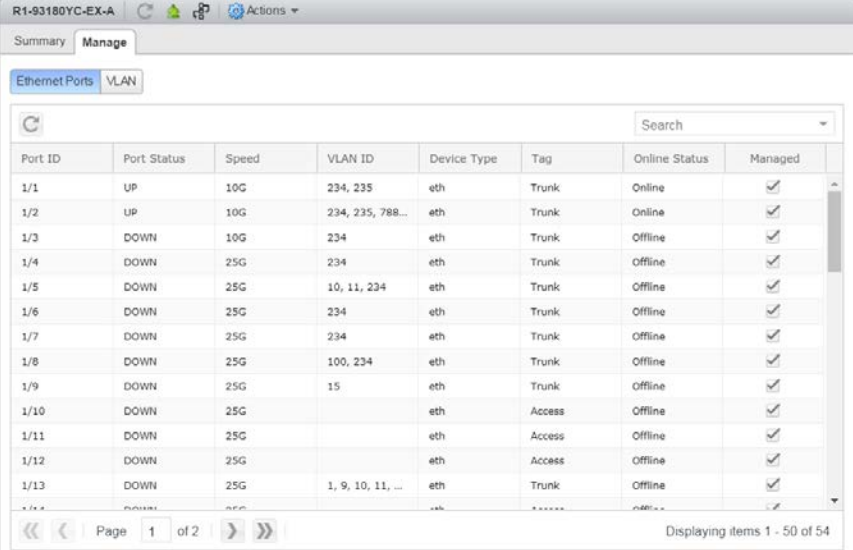
If necessary, you can consult the entry in the **Recent Tasks** window to check that the restore task has been completed and to determine any other relevant details regarding the task.

Managing Ethernet ports

You can enable or disable the status display of selected Ethernet ports.

Procedure

1. In the **UCP Advisor** window, click the **Ethernet Switches** icon.
Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Ethernet Switches**, then double-click the switch for the ports you want to include or exclude from management.
3. On the **Manage** tab, click the **Ethernet Ports** tab. All of the currently active ports are listed by their Port ID, including port status, speed, and other details.



The screenshot shows the 'Manage' tab with the 'Ethernet Ports' sub-tab selected. A table displays the following data:

Port ID	Port Status	Speed	VLAN ID	Device Type	Tag	Online Status	Managed
1/1	UP	10G	234, 235	eth	Trunk	Online	✓
1/2	UP	10G	234, 235, 788...	eth	Trunk	Online	✓
1/3	DOWN	10G	234	eth	Trunk	Offline	✓
1/4	DOWN	25G	234	eth	Trunk	Offline	✓
1/5	DOWN	25G	10, 11, 234	eth	Trunk	Offline	✓
1/6	DOWN	25G	234	eth	Trunk	Offline	✓
1/7	DOWN	25G	234	eth	Trunk	Offline	✓
1/8	DOWN	25G	100, 234	eth	Trunk	Offline	✓
1/9	DOWN	25G	15	eth	Trunk	Offline	✓
1/10	DOWN	25G		eth	Access	Offline	✓
1/11	DOWN	25G		eth	Access	Offline	✓
1/12	DOWN	25G		eth	Access	Offline	✓
1/13	DOWN	25G	1, 9, 10, 11, ...	eth	Trunk	Offline	✓

Page 1 of 2 | Displaying items 1 - 50 of 54

4. In the **Managed** column, you can specify which ports are to be managed via the check boxes.

Result

Ethernet port status is shown for the ports that are checked.

Creating and removing a VLAN on an Ethernet switch

You can create or remove a VLAN for a selected Ethernet switch.

Procedure

1. In the **UCP Advisor** window, click the **Ethernet Switches** icon.
Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Ethernet Switches**, then double-click on the switch where you want to add or remove a VLAN.
3. On the **Manage** tab, click the **VLAN** tab.
All of the currently active VLANs are listed by their VLAN ID, including name, associated ports, VLAN type, and other details.
4. To create a new VLAN, click the **Create VLAN** icon.

Port	Selected
1/1	<input checked="" type="checkbox"/>
1/2	<input type="checkbox"/>
1/3	<input checked="" type="checkbox"/>
1/4	<input type="checkbox"/>
1/5	<input type="checkbox"/>
1/6	<input type="checkbox"/>
1/7	<input type="checkbox"/>

5. Enter the name for the new VLAN, its ID, and specify whether it is a **Trunk** or **Access** port by clicking the appropriate button. You can also specify the ports that are to be associated with the newly created VLAN. Selecting a port is optional, and when not selected, the **Trunk** or **Access** type is ignored.
6. Click **Submit**.
To remove a VLAN, select the entry in the listing, click the **Delete** icon, then confirm the deletion.

Adding and removing ports from a VLAN

You add and remove ports from a VLAN.

Procedure

1. In the **UCP Advisor** window, click the **Ethernet Switches** icon.
Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Ethernet Switches**, then double-click the switch where you want to add or remove ports assigned to a VLAN.
3. On the **Manage** tab, click the **VLAN** tab.
All of the currently active VLANs are listed by their VLAN ID, including name, associated ports, VLAN type, and other details.
4. To assign or remove a port for an existing VLAN, click the **Add or Remove VLAN to Ports** icon.

	Port	Type
<input type="checkbox"/>	1/1	Trunk
<input checked="" type="checkbox"/>	1/2	Trunk
<input type="checkbox"/>	1/3	Trunk
<input checked="" type="checkbox"/>	1/4	Trunk
<input type="checkbox"/>	1/5	Trunk
<input type="checkbox"/>	1/6	Trunk
<input type="checkbox"/>	1/7	Trunk

5. Select the appropriate VLAN ID from the list, then check or uncheck the boxes next to ports that are to be included or excluded for the selected VLAN.
6. Add or remove a port from the VLAN or toggle the type between **Trunk** or **Access**.
7. Click **Submit**.

Synchronizing a VLAN trunk range to an Ethernet switch

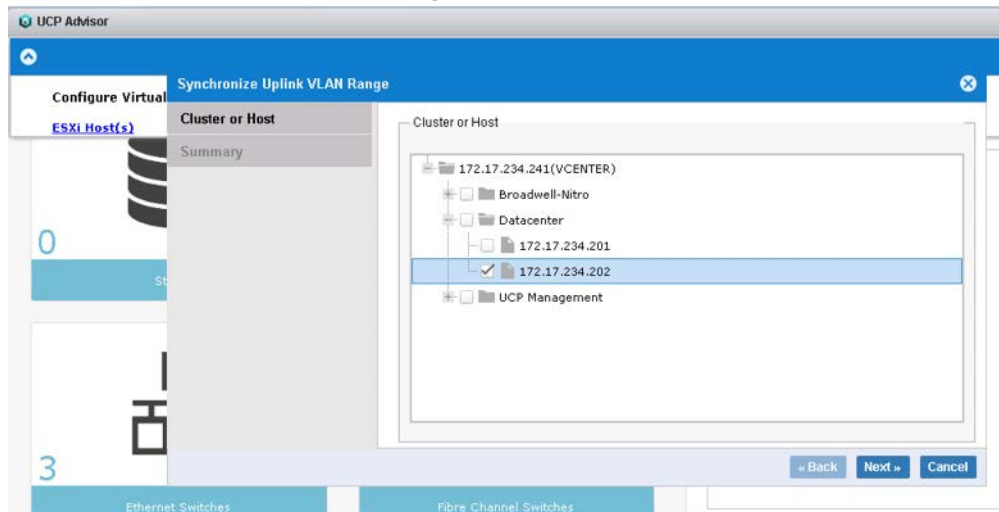
You can copy a VLAN range from a VMware distributed virtual switch to a UCP switch device.

Before you begin

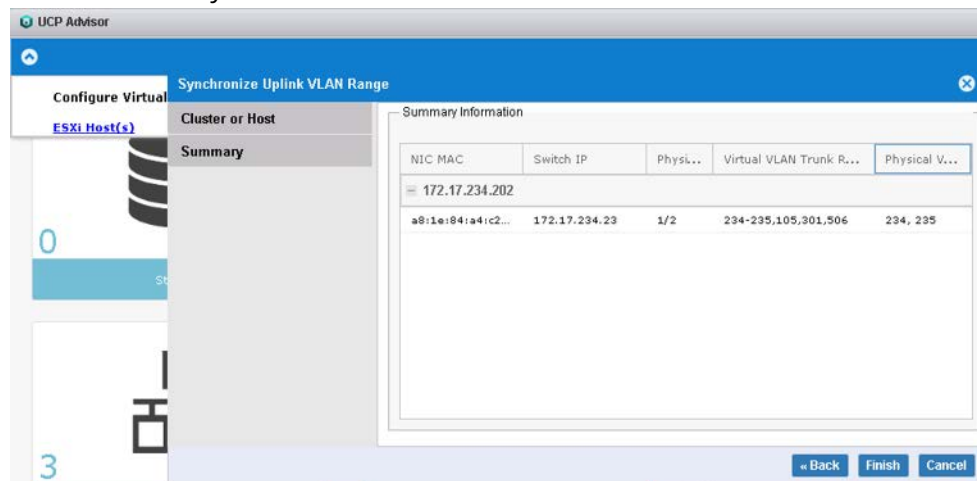
vLAN synchronization requires distributed vSwitch configured in vCenter as per the UCP 2000 or UCP CI deployment guides. The selected host must be part of dvSwitch to synchronize vLAN. In order to retrieve physical switch vLAN there should be ESXi host traffic between host and ethernet switch.

Procedure

1. From the **Configure Virtual/Logical Resources** banner at the top of the UCP Advisor main window, click **VLAN Mgmt.**



2. Select the appropriate host from the cluster or data center.
3. Expand the selected server and verify the server nic mac address, Switch IP address, Physical port, Virtual vLAN trunk range (comes from vCenter dvSwitch uplink port group vLAN), Physical vLAN trunk range(comes from physical ethernet switch port vLAV).
4. Check the summary



5. Click **Finish** to complete the VLAN synchronization.
Note that the **Summary** screen shows only one NIC to be synchronized, but UCP Advisor will synchronize both of the NIC'S associated with the ESXi hosts.

Managing Fibre Channel switches

You can obtain detailed, component-level information for a selected Fibre Channel switch by accessing the Manage tab from the UCP Navigator window. You can also perform a number of management operations from the Actions list.

From the Manage tab, you can access detailed information regarding a server by selecting the appropriate tab:

- **Ports:** Shows details about the Fibre Channel ports.
- **Alias:** Shows currently defined aliases for the selected switch and allows you to add, edit, and remove aliases.
- **Zones:** Shows currently defined zone names for the selected switch and allows you to add, edit, and remove zones.
- **Zone Config:** Shows the zone configuration associated with the selected switch and allows you create, edit, and remove zone configurations. You can also enable and disable zone configurations.

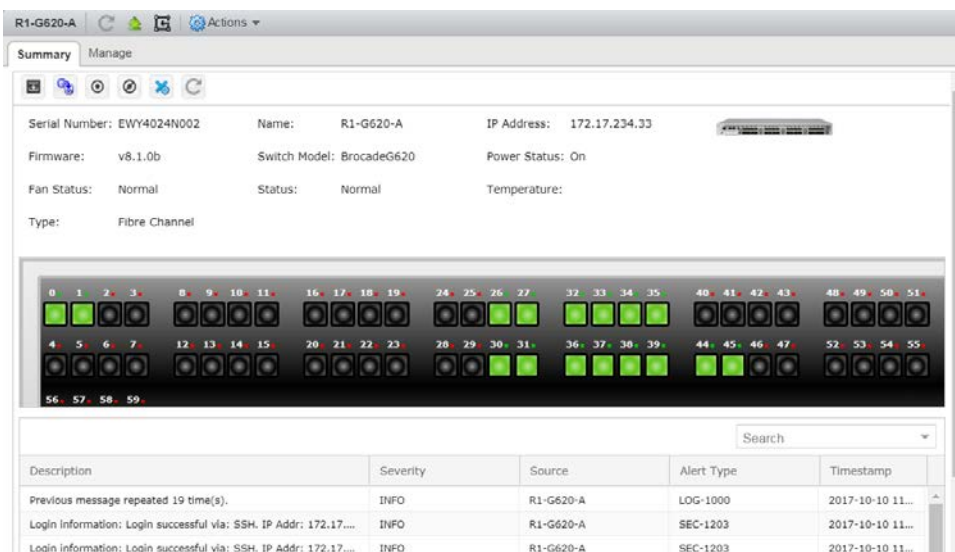
From the Actions list, you can perform the following management tasks:

- **Upgrade Firmware:** Allows you to upgrade the firmware for a selected switch to the latest version.

Fibre Channel switch inventory

You can obtain a summary of pertinent details for a selected Fibre Channel switch by accessing the Summary tab from the UCP Navigator window.

The Summary tab, shown below, provides information about the Fibre Channel switch, its location, and its current state.



Alerts regarding the currently selected switch are shown at the bottom of the Summary window, indicating severity level, source, and type of alert. You can use this information to track alerts that are generated during the operation of the switch.

The following details are provided in the summary:

Serial Number:

Serial number of the switch.

Firmware:

Firmware version for the switch.

Fan Status:

Indicates the current fan status.

Type:
Indicates the type of switch (Fibre Channel)

Switch Model:
Indicates the switch model.

IP Address:
Indicates the IP address for the switch.

Status:
Shows the onboard status as follows:

- UP
- DOWN
- UNKNOWN
- UNREACHABLE

Power Status:
Shows the current power status (On or Off).

Temperature:
Shows the current temperature as follows:

- Other
- Unknown
- Normal
- Warning
- Critical
- Fatal

Name:
Shows the switch chassis name.

A collection of icons at the top of the Summary window allow you to enable and disable the switch, and back up and restore profiles associated with the switch. Here are the operations that are available:

Backup Profile
Backs up the current profile.

Restore Profile
Restores the specified profile.

Enable FC Switch
Enables the Fibre Channel switch.

Disable FC Switch
Disables the Fibre Channel switch.

Clear Zone Config
Clears the zone configuration.

Upgrading Fibre Channel switch firmware

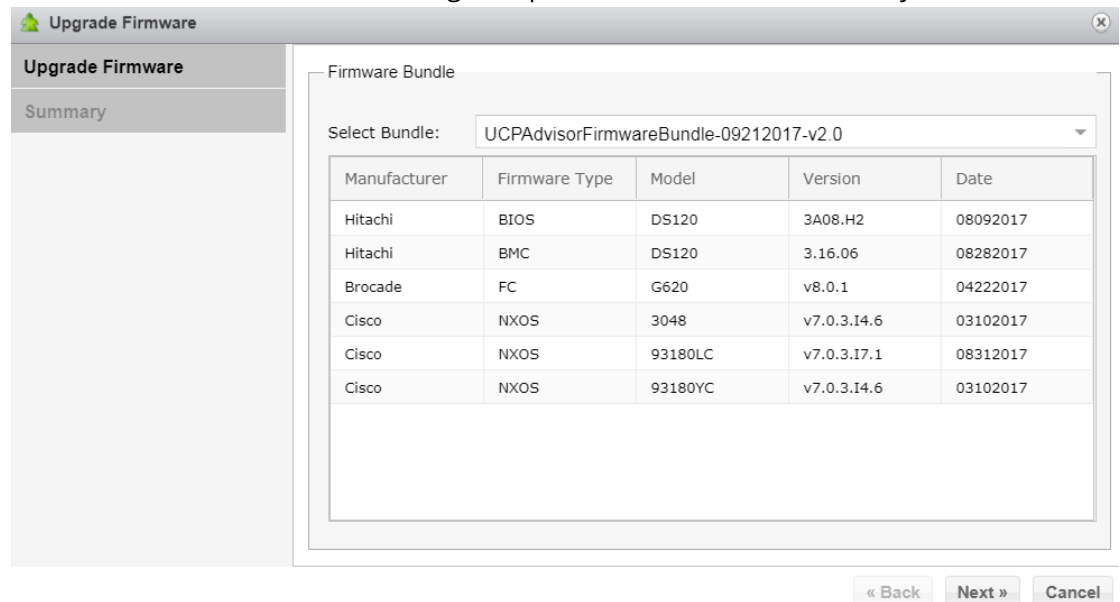
You can upgrade the firmware for a selected Fibre Channel switch.

Before you begin

- Prior to upgrading the server firmware, you must first upload the appropriate firmware bundle from the Firmware tab, available from the Administration selection in the Navigator window.

Procedure

1. In the **UCP Advisor** window, click the **Fibre Channel** icon. Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Fibre Channel Switches**, then select the switch with the firmware to be updated.
3. Click **Upgrade Firmware** either from the top of the **Switches** window or as an option from the **Actions** list. The **Upgrade Firmware** window appears with a listing of available firmware bundles, along with pertinent details for each entry.



4. Select the appropriate firmware bundle from the list, then click **Next**.

Result

If necessary, you can consult the entry in the **Recent Tasks** window to check that the firmware upgrade task has completed and to determine any other relevant details regarding the task.

Managing Fibre Channel ports

You can determine the ports associated with a Fibre Channel switch and check their current status.

Procedure

1. In the **UCP Advisor** window, click the **Fibre Channel** icon.

Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.

2. On the **Navigator** window, click **Fibre Channel Switches**, then select the switch where you want to review port details.
3. On the **Manage** tab, click the **Ports** tab.
All of the ports associated with the selected Fibre Channel switch are listed by their port ID, name, and other pertinent details:

Port Entry Descriptions

Port ID: Shows the ID associated with the port.

Port Name: Shows the port name.

Speed: Shows the speed classification for the port as follows:

- AN = Automatic speed negotiation is enabled.
- Nx = Negotiated x Gbps; for example, N8 speed means the negotiated speed is 8 Gbps.
- xG = Port speed is set as fixed at x Gbps; for example, 8G indicates that the speed is fixed at 8 Gbps.

WWN: Shows the World Wide Name (members) associated with the port.

Status: Indicates whether the port is currently online or not.

Managing aliases

You can add, edit, and delete members of a zone alias for a selected Fibre Channel switch.

Procedure

1. In the **UCP Advisor** window, click the **Fibre Channel** icon.
Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Fibre Channel Switches**, then select the switch where you want to add or remove an alias.
3. On the **Manage** tab, click the **Alias** tab.
All of the currently active aliases are listed by their name and associated members.
4. To create a new alias, click the **Add Alias** icon. The **Add Alias** window appears where you can specify an alias name and select the WWNs to be associated with the new alias.

Add Alias

Alias Name:

<input checked="" type="checkbox"/>	WWN
<input type="checkbox"/>	10:00:00:90:fa:f0:94:d8
<input type="checkbox"/>	10:00:00:10:9b:1c:30:48
<input type="checkbox"/>	50:06:0e:80:12:a0:c6:04
<input type="checkbox"/>	50:06:0e:80:12:a0:c6:15
<input type="checkbox"/>	50:06:0e:80:12:a0:c6:24
<input type="checkbox"/>	50:06:0e:80:12:a0:c6:34
<input type="checkbox"/>	50:06:0e:80:07:de:57:00

5. Enter the name for the new alias, then check the boxes next to the members that are to be associated with the newly created alias. If necessary, you can select the **WWN** check box to include all available members.

6. Click **Submit**.

To edit an existing alias, select the name of the alias from the list and then click the **Edit Alias** icon and make the necessary modifications.

To remove an existing alias, select the name from the list, then click the **Delete Alias** icon and confirm the deletion.

Managing zones

You can create, edit, and delete zones for a selected Fibre Channel switch.

Procedure

1. In the **UCP Advisor** window, click the **Fibre Channel** icon.
Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Fibre Channel Switches**, then select the switch where you want to add or remove a zone.
3. On the **Manage** tab, click the **Zones** tab.
All of the currently active zones are listed by their zone name, including their associated members.
4. To create a new zone, click the **Create Zone** icon. The **Add Zone** window appears where you can specify a new zone name and select an associated alias name.

Add Zone

Zone Name:

<input checked="" type="checkbox"/>	Alias Name
<input checked="" type="checkbox"/>	CL1A
<input checked="" type="checkbox"/>	CL1B
<input checked="" type="checkbox"/>	CL3A
<input checked="" type="checkbox"/>	CL5A
<input checked="" type="checkbox"/>	CL8B
<input checked="" type="checkbox"/>	G800_CL1E
<input checked="" type="checkbox"/>	G800_CL2F

Submit **Cancel**

5. Choose an alias for the selected zone.

6. Click **Submit**.

To edit an existing zone, select the name of the zone from the list and then click the **Edit Zone** icon.

To remove an existing zone, select the name of an existing zone from the list, then click the **Delete Zone** icon.

Result

The new zone is created and listed according to the name and other information you supplied.

Managing a zone configuration

You can add, edit, and delete zone configurations for a selected Fibre Channel switch.

Procedure

1. In the **UCP Advisor** window, click the **Fibre Channel** icon.
Depending on the available switches, you can select either **Ethernet Switches** or **Fibre Channel Switches** from the **Navigator** window.
2. In the **Navigator** window, click **Fibre Channel Switches**, then select the switch where you want to add or remove a zone configuration.
3. On the **Manage** tab, click the **Zone Config** tab.
All of the currently active zone configurations are listed, including their associated members.
4. To create a new zone configuration, click the **Create Zone Config** icon. The **Add Zone Config** window appears where you can enter a name for the new zone configuration and select the associated members.

Add Zone Config
✕

Zone Cfg Name:

<input type="checkbox"/> Zone Name
<input checked="" type="checkbox"/> Skylake_201_2
<input type="checkbox"/> Skylake_202_z2
<input checked="" type="checkbox"/> khoa
<input type="checkbox"/> mgmtzone
<input type="checkbox"/> srini
<input type="checkbox"/> zone1
<input type="checkbox"/> zone2

Submit
Cancel

5. Enter the name for the new zone configuration, then select the appropriate check boxes for the associated members.
6. Click **Submit**.

To edit an existing zone configuration, select the name of the zone configuration from the list, then click the **Edit Zone Config** icon and make the necessary modifications.

To remove an existing zone configuration, select the name of an existing configuration from the list, then click the **Delete Zone Config** icon.

To enable a defined zone configuration, select the name of the defined zone configuration from the list, then click the **Enable Zone Config** icon.

To disable an effective zone configuration, select the name of the effective zone configuration from the list, then click the **Disable Zone Config** icon.

Result

The new zone configuration is created and listed according to the name and other information you supplied. The zone configuration will now be part of the defined configuration. After a new zone is added or deleted, use the enabling and disabling a zone configuration instructions to enable or disable the configuration.

Chapter 5: Administering UCP Advisor

You can perform administrative tasks to add devices and configure operational parameters from the UCP Advisor environment.

Renewing an existing license

UCP Advisor ships with a 60-day trial license. You must apply for and obtain a permanent license after the trial period is over.

If the trial license has already expired, you are prompted to enter the license key before you can access UCP Advisor. In this case, provide the System-ID and node count values to your Hitachi representative to obtain a license key.

Procedure

1. In the **Navigator** window, click **Administration**. The **Administration** window appears with the **License** tab selected.

The screenshot shows the 'Administration' window with the 'License' tab selected. The window contains three main sections: 'License Information', 'Apply License Key', and 'Registered Compute Devices'.

License Information	
System ID:	df-09-06-85-24-4f
Node Count (Available / Total):	123 / 128
Days To Expire:	58
License Key:	00C4-AAFD-0000-438E-203C-1CE8-DF09
License Type:	Trial
Status:	Valid License

Apply License Key	
License Key:	<input type="text" value="XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"/>
<input type="button" value="Apply"/>	

Registered Compute Devices	
UCP Appliance	Registered Compute Devices
scpodb	5

2. Enter the license in the **License key** field.
3. Click **Apply**.

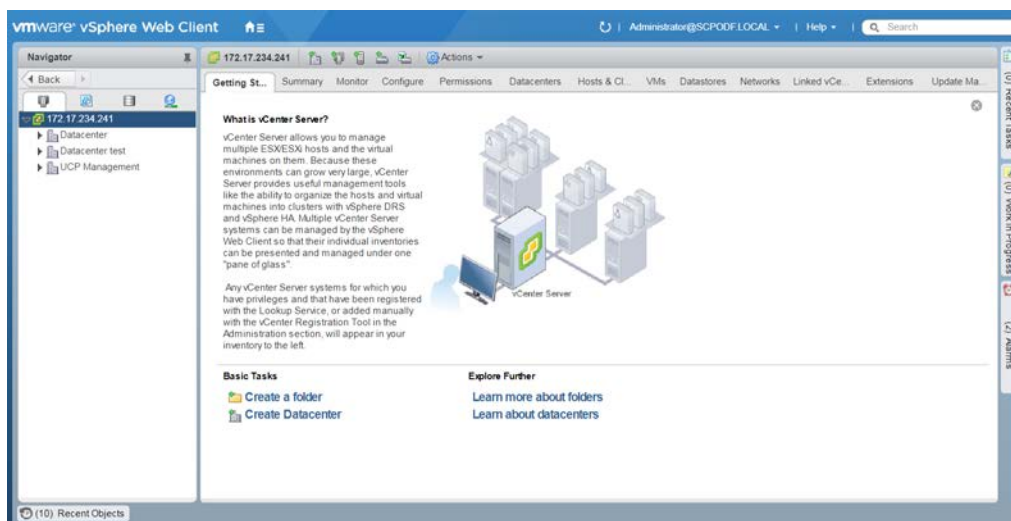
Registering a UCP system

In most cases, the UCP appliances required for your site will be registered during the deployment phase of the installation, but you can register new appliances as necessary.

Before you begin

Procedure

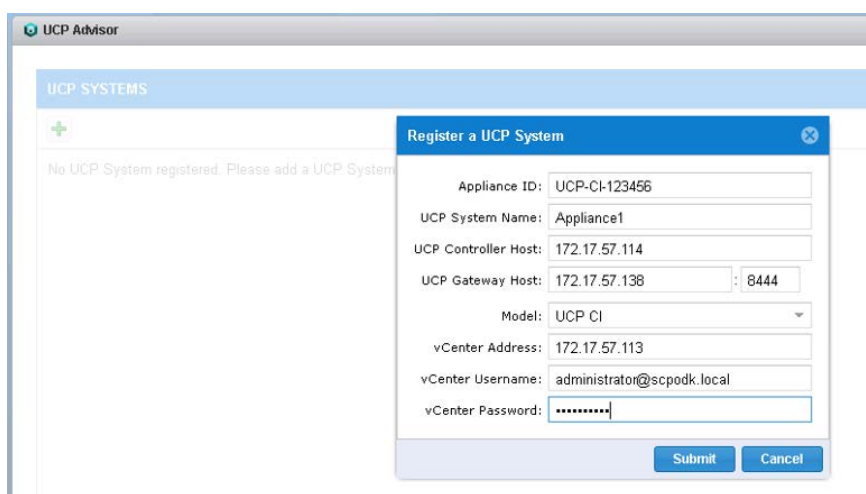
1. Log on to the VMware vSphere Web Client using your vCenter Administrator credentials.



2. From the **Home** menu, located in the upper left area of the **vSphere Web Client** window, select **UCP Advisor**.
3. If a UCP System has not yet been registered, you will need to register one by clicking on the plus (+) sign to access the **Register a UCP System** dialog where you can enter the appropriate values as shown in the example below.



Note: In most cases, the UCP system and the devices required by your site will already have been registered and onboarded during the pre-deployment configuration. The following step is provided if you need to register a different UCP system. If you need to onboard additional devices, see [Automatically adding resources using a CSV file \(on page 73\)](#) or [Manually adding devices \(on page 75\)](#) and add the necessary devices before continuing with the next steps.



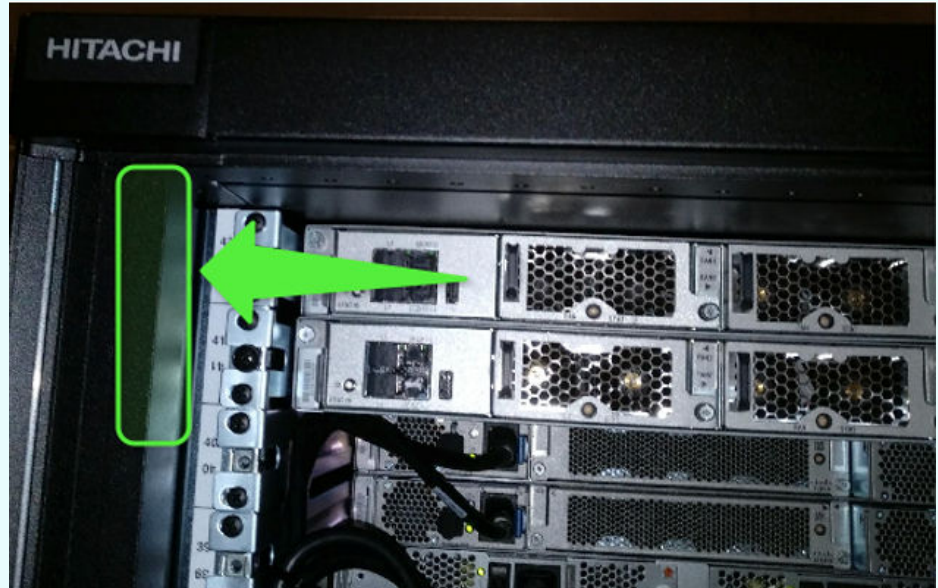
4. Enter the relevant details as follows, then click **Submit**:

Appliance ID:

This is the descriptor ID for the appliance.



Note: The UCP Appliance ID is the number assigned to the system (UCP-CI/RS/HC/2000/LOGICAL). For the UCP CI system, the 5 digit serial number is required. The serial number is located in the front of the rack, on a white rectangular label, affixed to the inner portion of the upper left-hand corner:



Except for the UCP CI system (that uses a 5 digit serial number), all of the other currently supported systems use a 6 digit identifier that you must assign for the Appliance ID. The following list shows the format used for all currently supported systems:

- UCP-CI-00000
- UCP-RS-000000
- UCP-HC-000000
- UCP-2000-000000
- UCP-LOGICAL-000000

UCP System Name:

A common name used to refer to the UCP system.

UCP Controller Host:

UCP Advisor Controller VM IP address.

UCP Gateway Host:

UCP Advisor gateway VM IP address.

Model:

UCP Advisor supports the following UCP appliance models: UCP CI (Converged Infrastructure), UCP HC (Hyper-converged), UCP RS (Rack Scale), UCP 2000, Logical UCP.

vCenter Address:

The vCenter server address.

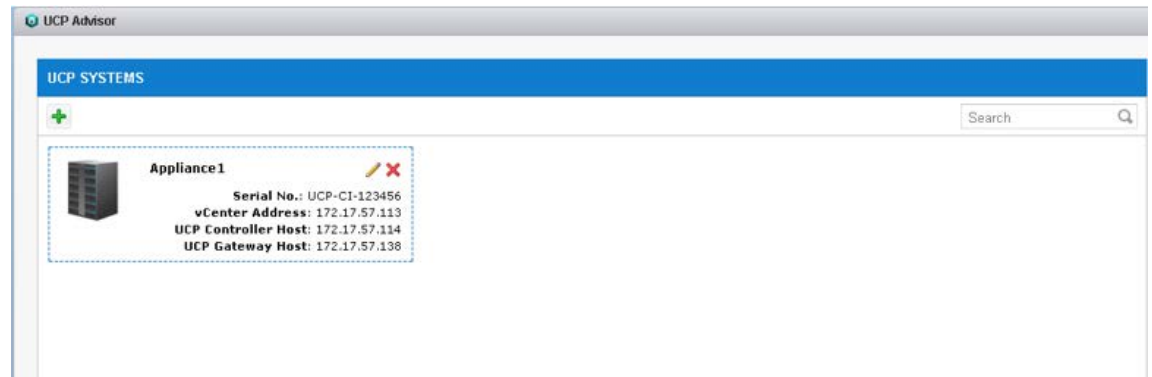
vCenter SSO credential:

The user name for the vCenter.

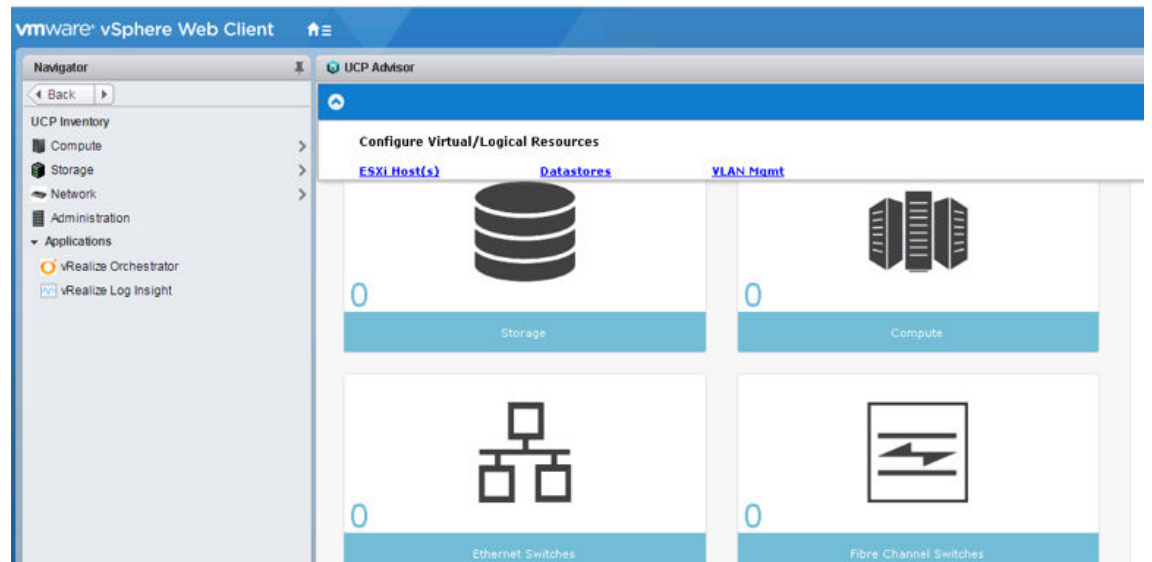
vCenter Password:

The password for the vCenter.

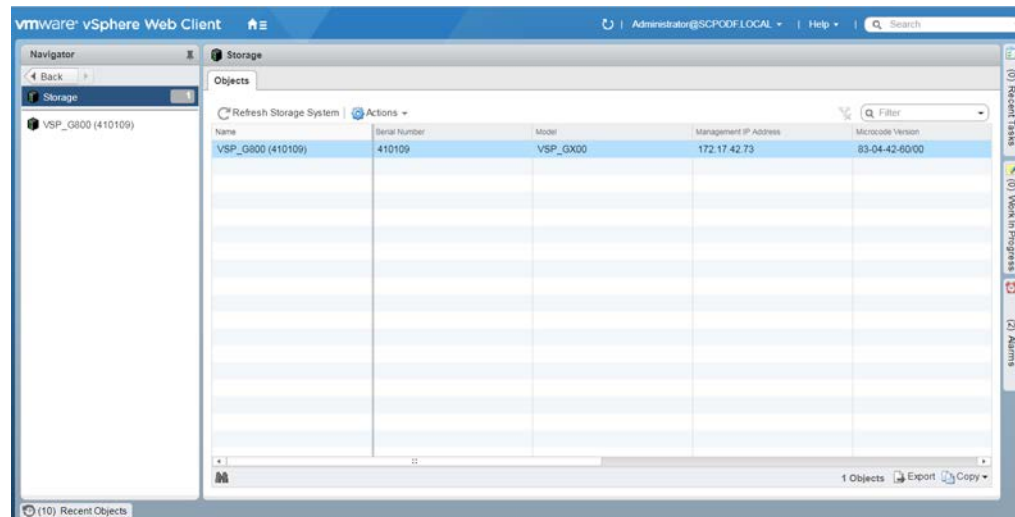
After you enter the details, the specified UCP system is made available.



- Click on the icon representing the UCP system. You are provided a choice of compute, storage, or network devices on the **UCP Advisor** window.



- Click on the icon representing the type of devices you want to manage. Depending on the type of device you select, you see a listing of available devices.



Adding resources

UCP Advisor can automatically register and configure UCP hyperconverged or converged infrastructure resources in a single workflow using a CSV file. If necessary, you can also add individual resources manually.

Automatically adding resources using a CSV file

You can use a CSV file to automatically add multiple storage, compute, and switch devices.

Before you begin

Prior to adding resources, you must first have a CSV file prepared that lists the devices and provides other configuration details on how these devices are to be brought on-board. If a CSV file is not already prepared for your site, you can use the sample spreadsheet located in the installation folder (C:\Program Files\Hitachi\UCP Advisor\Documentation\UCPAdvisorOnBoardSheet.csv). In this case, you need to manually enter the connection information for your devices and then save the configuration as a .csv file that can be uploaded during this procedure.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Onboard** tab.

Administration

LicenseOnboardConfigurationComputeStorageNetworkBackupFirmwareLog BundleRest API

Upload Information

Worksheet File Path: Select Worksheet

Upload

Devices to be Onboarded

Device IP/Name	Device Type	Device Serial	User ID

On Board

Clear

3. Click **Select Worksheet** to browse through your computer folders for the .csv file for the devices you want to bring onboard.

The screenshot shows the 'Administration' interface with the 'Upload Information' section active. A Windows Explorer window is open, displaying the contents of the C: drive. The file list includes folders like DRIVERS, HDS, Intel, MSOCache, PerfLogs, Program Files, Program Files (x86), ProgramData, UCP-Advisor, and Users. The 'File name' field is empty, and the file type is set to 'All Files'.

- Click **Upload** to upload the specified .csv file.
Configuration details from the selected .csv file are uploaded, as reflected in the **Devices to be Onboarded** field.
- Review the information to verify the device details.

The screenshot shows the 'Administration' window with the 'Onboard' tab selected. Below the navigation tabs is the 'Upload Information' section with a 'Worksheet File Path' input field and a 'Select Worksheet' button. Below this is the 'Devices to be Onboarded' section, which contains a table with the following data:

Device IP/Name	Device Type	Device Serial	User ID
172.17.234.101	Server	N/A	admin
172.17.234.102	Server	N/A	admin
172.17.42.193	Storage	441158	maintenance
172.17.234.10	Switch	N/A	admin
172.17.234.23	Switch	N/A	admin
172.17.234.24	Switch	N/A	admin
172.17.234.33	Switch	N/A	admin
172.17.234.34	Switch	N/A	admin

At the bottom right of the 'Devices to be Onboarded' section is an 'On Board' button.

6. Click **Onboard** to onboard the devices.

Manually adding devices

Instead of having devices automatically loaded through a CSV configuration file, you can manually add compute, storage, and network devices to UCP Advisor.

Adding a compute node

You can manually add a compute node to be managed by UCP Advisor.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Compute** tab.
3. Click the **Add Compute Device** icon.

4. Enter the compute node details in the **Add Compute Device** dialog as follows:
 - Hostname or IP Address: Host name or IP address for the compute device to be added.



Note: Only the IP address is supported in the current version.

- Username: User name identifying the user adding the compute device.
- Password: Password for the user adding the compute device.
- ESXi INFO: ESXi Host name or IP address and credential information.

Result

The new compute device is brought on-board and reflected in the list of devices.

Adding a storage system

You can manually add a storage system to be managed by UCP Advisor.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Storage** tab.
3. Click the **Add Storage System** icon.

4. Enter the storage system details in the **Add Storage System** dialog.
 - Serial Number: Serial number for the storage system being added.

- Management IP Address: IP address for the storage system being added.
- Username: User name identifying the user adding the storage system.
- Password: Password for the user adding the storage system.

Result

The new storage device is brought on-board, as reflected in the list of devices.


Adding a network switch

You can manually add a network switch to UCP Advisor.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Compute** tab.
3. Click the **Add Switch** icon.

4. In the **Add Switch** window, enter the appropriate details for the switch to be added.
 - Hostname or IP Address: Host name or IP address for the switch being added.

 **Note:** Only IP address is currently supported.

- Switch Type: This can be one of the following:
 - Ethernet
 - Ethernet Management (Management switch)
 - Fibre Channel
- Username: Name of the user adding the switch.
- Password: Password for the user adding the switch.

Result

The new switch device is brought on-board, as reflected in the list of devices.

Configuring the UCP Gateway Host

You can configure the UCP gateway credentials used by the UCP Advisor web service to collect logs.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Configuration** tab.
3. Scroll down to **UCP Gateway Host** and click the **Edit** icon.

4. Enter the relevant details in the **UCP Gateway Host** dialog. Many of the details for the UCP Gateway Host are populated already:
 - Hostname or IP Address: Host name or IP address for the UCP Gateway Host.
 - Port: Specifies the port used for the UCP Gateway Host.
 - Username: User name identifying the user configuring the application.
 - Password: Password for the user configuring the application.
5. Enter the credentials and click **Submit** to register and configure the UCP Gateway Host.

Configuring vRealize Orchestrator

You can configure the optional vRealize Orchestrator application with UCP Advisor to automate IT workflow processes on Hitachi storage and compute devices.

Before you begin

- Ensure that vRealize Orchestrator is deployed. For more information, see the *VMware vSphere ESXi and vCenter Server 6.0/6.5 Documentation* online document for information on deploying vRO, found on the VMware web site: <http://www.vmware.com/>.
- The Hitachi Storage Connector software must be installed as an addition to vRealize Orchestrator to add Hitachi workflows to the Orchestrator library. It sends storage operations triggered by workflows to the web service component to be carried out. This component is represented by a file named `o11nplugin-HSC.dar`.

- The Hitachi Compute Connector software must be installed as an addition to vRealize Orchestrator to add Hitachi workflows to the Orchestrator library. It sends compute operations triggered by workflows to the web service component to be carried out. This component is represented by a file named `ollnplugin-HiVCOsServer.dar`.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Configuration** tab.
3. Scroll down to **vRealize Orchestrator** and click **Add**.

vRealize Orchestrator

Hostname or IP Address: * 172.17.234.421

Port: * 8283

Username: * Mike

Password: *

Submit Cancel

4. Enter the relevant details in the **vCenter Appliance Configuration** dialog as follows:
 - Hostname or IP Address: Host name or IP address for vRealize Orchestrator.
 - Port: Specifies the port used for the vRealize Orchestrator application. Specify 23020 for HTTP or 23021 for HTTPS (vRO Web Service).
 - Username: User name identifying the user configuring the application.
 - Password: Password for the user configuring the application.
5. Click **Submit** to register and configure vRealize Orchestrator.

Configuring vRealize Log Insight

You can configure the vRealize Log Insight application to deliver heterogeneous and highly scalable log management with intuitive, actionable dashboards, sophisticated analytics, and broad third-party extensibility. This application provides deep operational visibility and faster troubleshooting across physical, virtual, and cloud environments.

Before you begin

The Hitachi UCP Advisor converged content pack enables the collection of syslog information from storage, compute, and network devices that are on-boarded to inventory. Before using the vRealize Insight application, you need to enable the syslog through a content pack.

For server and storage devices, use the following content pack:

```
C:\Program Files\Hitachi\UCP Advisor\HiLogInsightConverged\Content
Packs\ UCP Advisor Converged v01.0.0.vlcp
```

For Brocade and Cisco Systems, download the content pack from the VMware solution exchange:

<https://marketplace.vmware.com/vsx/solutions/brocade-ip-networks-log-insight-content-pack>

Procedure

1. In the Navigator window, click **Administration**.
2. Click the **Configuration** tab.
3. Scroll down to **vRealize Log Insight** and click **Add**.

vRealize Log Insight

Hostname or IP Address: * 172.17.234.123

Username: * Matt

Password: *

Port: * 9543

Note: Once the configuration is successfully saved, a new window/tab opens. If you have not accepted the certificate, accept it. The certificate enables vRealize Log Insight to work.

Submit Cancel

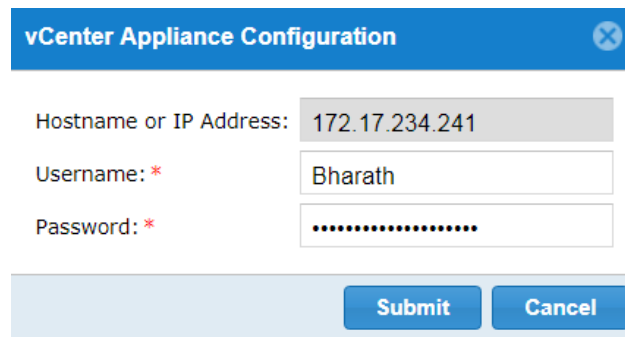
4. Enter the relevant details in the **vRealize Log Insight** dialog box as follows:
 - Hostname or IP Address: Host name or IP address of the user.
 - Username: User name identifying the user configuring the application.
 - Password: Password for the user configuring the application.
 - Port: Specifies the port used for the vRealize Log Insight application. Port 9543 is specified.
5. Click **Submit** to register and configure vRealize Log Insight.

Configuring the VMware vCenter Appliance

You can configure the vCenter Appliance to communicate with UCP Advisor.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Configuration** tab.
3. Scroll down to **vCenter Appliance** and click **Edit**.



vCenter Appliance Configuration

Hostname or IP Address: 172.17.234.241

Username: * Bharath

Password: *

Submit Cancel

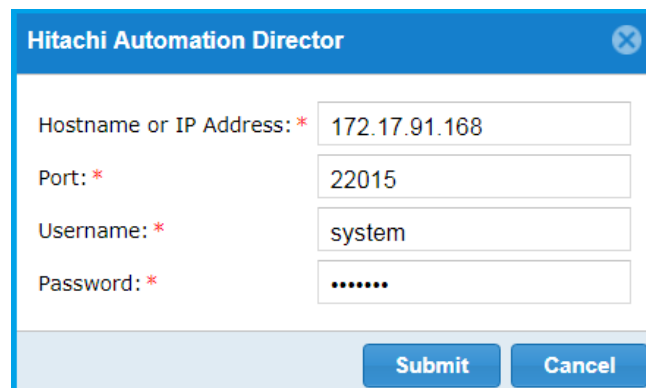
4. Enter the relevant details in the **vCenter Appliance Configuration** dialog as follows:
 - Hostname or IP Address: Host name or IP address for the appliance (already filled in).
 - Username: User name identifying the user configuring the appliance.
 - Password: Password for the user configuring the appliance.
5. Click **Submit** to update the appliance.

Configuring Hitachi Automation Director

You can configure Hitachi Automation Director to enable the execution of service templates from UCP Advisor.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Configuration** tab.
3. Scroll down to **Hitachi Automation Director** and click the **Add** icon.



Hitachi Automation Director

Hostname or IP Address: * 172.17.91.168

Port: * 22015

Username: * system

Password: *

Submit Cancel

4. Enter the relevant details in the **Hitachi Automation Director** dialog as follows:
 - Hostname or IP Address: Host name or IP address for the Automation Director server.
 - Port: Port for Automation Director.
 - Username: User name identifying the user with administrator privileges who is to access Automation Director. Enter `system`.
 - Password: The Automation Director administrator password. Enter `manager`.

5. Click **Submit**.

Running Hitachi Automation Director

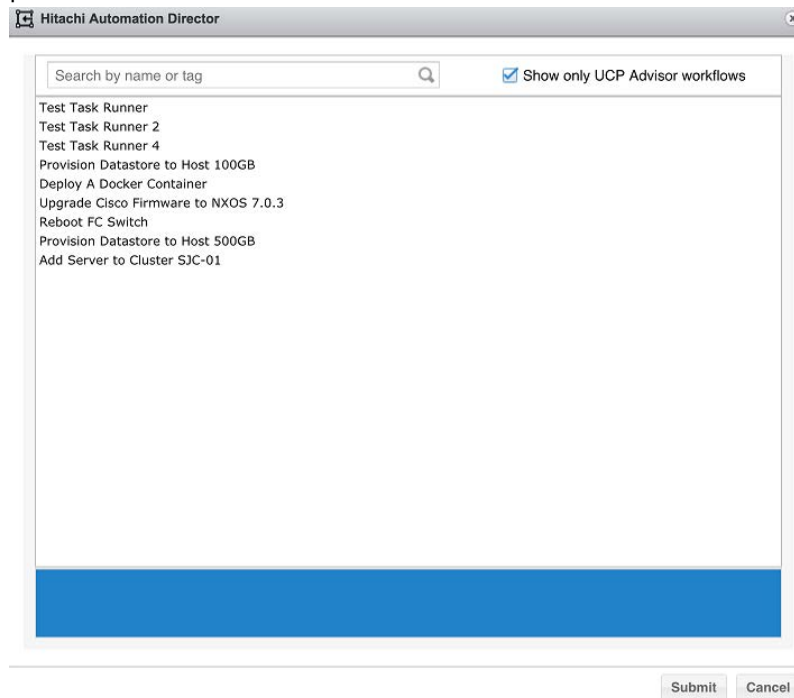
You can access Hitachi Automation Director from within UCP Advisor and make use of specially designed templates that automate many of the common management tasks.

Before you begin

- Make sure the Hitachi Automation Director software is installed, and is registered with UCP Advisor.
- Check to ensure that your Hitachi representative has created custom templates that can be run from UCP Advisor.

Procedure

1. In the **Navigator** window, or from the icons in the **UCP Advisor** window, select the type of device you want to manage (Storage, Compute, Ethernet Switches, or Fibre Channel Switches).
2. Double-click and select the device from the **Objects** window.
3. From the **Actions** list, select **Hitachi Automation Director**. A listing of Automation Director templates is provided, along with an explanation of the function each performs.



4. Select the required service template from the list and click **Submit**. You can search for templates created by your Hitachi representative via their associated tags. If the **Show only UCP Advisor workflows** check box is checked, you can view and submit custom workflows created by your Hitachi representative. If empty, contact the appropriate Hitachi representative.

Result

The selected Automation Director template is run.

Configuring the SCP Server

You can edit the SCP Server configuration file that allows files to be easily transferred between UCP Advisor and a network switch.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Configuration** tab.
3. Scroll down to **SCP Server** and click the **Edit** icon.

4. Enter the relevant details in the **SCP Server Configuration** dialog box as follows:
 - Hostname or IP Address: Host name or IP address for the SCP server. The host name is automatically supplied.
 - Username: User name identifying the user configuring the application.
 - Password: Password for the user configuring the application.
5. Click **Submit** to configure the server.

Scheduling the backup of a switch configuration

You can schedule, or immediately perform, a backup of a selected switch configuration.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Backup** tab.

The screenshot shows the 'Administration' window with the 'Backup' tab selected. The 'FC Switch and Ethernet Switch Backup Schedule' section is visible. It includes a 'Weekly' section with checkboxes for days of the week: Monday, Tuesday, Wednesday (checked), Thursday, Friday, Saturday, and Sunday (checked). Below this is a 'Time' dropdown menu set to '3:30 PM'. At the bottom right of the section are two buttons: 'Backup Now' and 'Submit'.

3. You have the option of scheduling the backup for a specified time, or you can perform the backup immediately.
 - To set up a scheduled backup, specify the appropriate day of the week when the backup is to take place, then specify a time from the list.
 - To perform an immediate backup, click **Backup Now**.
4. Click **Submit** to initiate the backup sequence.
The backup is performed as specified and can be confirmed by checking the task list.

Upgrading and applying firmware and patches

You can upgrade firmware for compute nodes, Fibre Channel, and Ethernet switches.

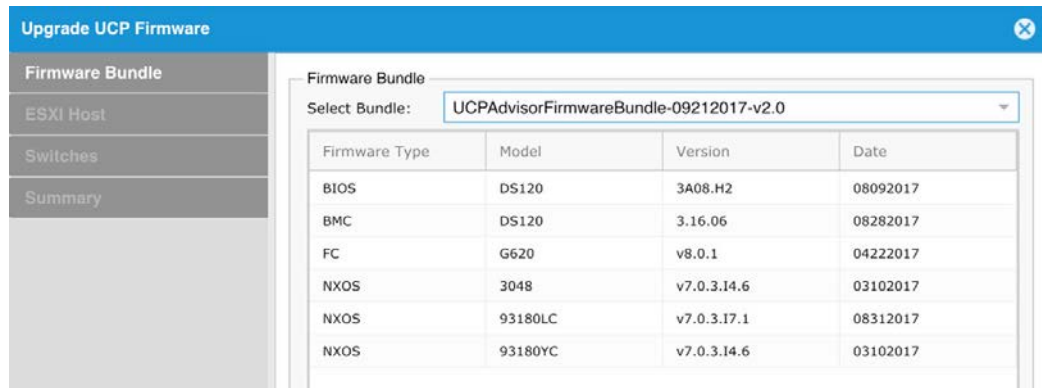
Procedure

1. In the **Navigators** window, click **Administration**.
2. Click the **Firmware** tab, then wait for the firmware information to appear in the **Firmware Information** window.

The screenshot shows the 'Firmware Information' window. At the top is the 'Upload Information' section with a 'Firmware Bundle File Path:' text box and a 'Select Bundle' button. Below this is an 'Upload' button. The main section is the 'Firmware Information' table, which lists firmware details for various components.

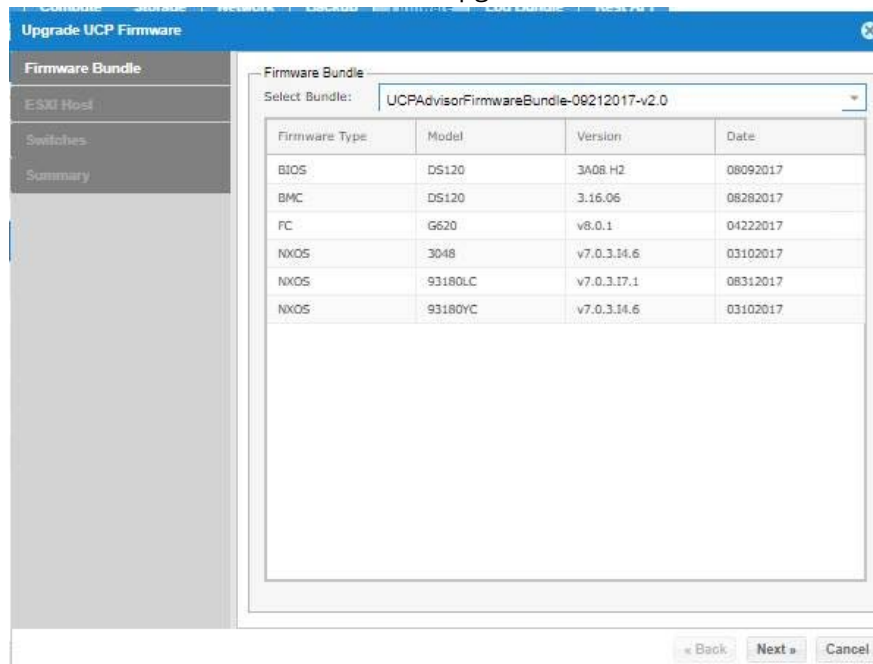
Firmware Type	Model	Version	Date
BIOS	DS120	3A08.H2	08092017
BMC	DS120	3.16.06	08282017
FC	G620	v8.0.1	04222017
NXOS	3048	v7.0.3.14.6	03102017
NXOS	93180LC	v7.0.3.17.1	08312017
NXOS	93180YC	v7.0.3.14.6	03102017

3. Click **Select Bundle** to specify the file path for the firmware bundle.



Firmware Type	Model	Version	Date
BIOS	DS120	3A08.H2	08092017
BMC	DS120	3.16.06	08282017
FC	G620	v8.0.1	04222017
NXOS	3048	v7.0.3.14.6	03102017
NXOS	93180LC	v7.0.3.17.1	08312017
NXOS	93180YC	v7.0.3.14.6	03102017

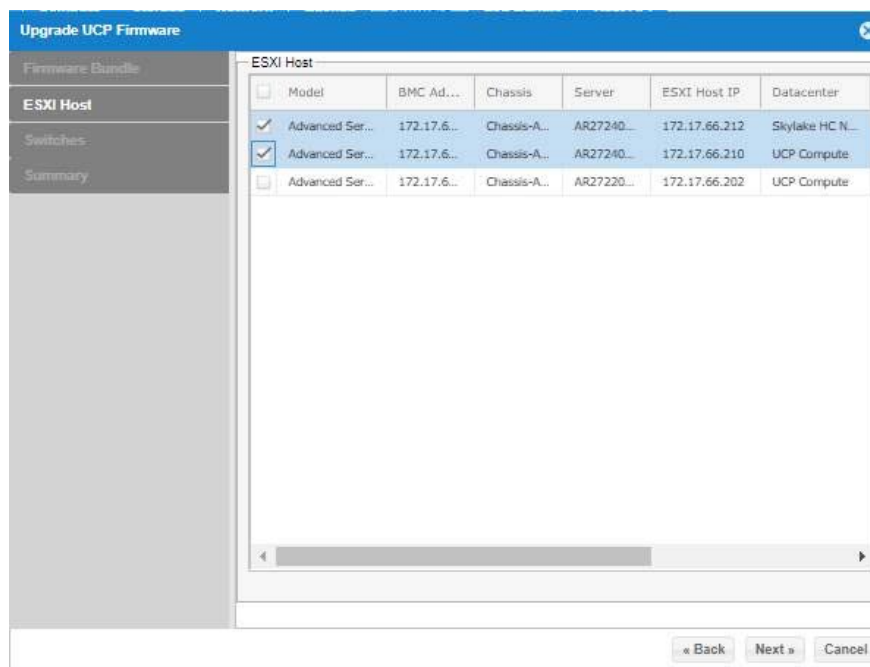
4. Click **Upload** to load the selected bundle.
5. When the contents are uploaded, click **Upgrade UCP Firmware**.
6. Select the firmware bundle for the upgrade, then click **Next**.



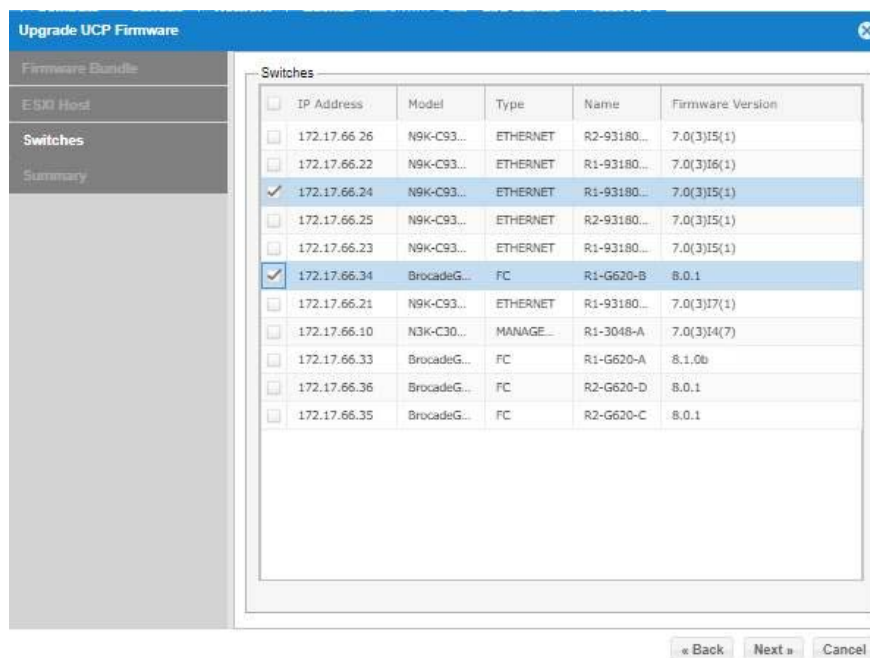
Firmware Type	Model	Version	Date
BIOS	DS120	3A08.H2	08092017
BMC	DS120	3.16.06	08282017
FC	G620	v8.0.1	04222017
NXOS	3048	v7.0.3.14.6	03102017
NXOS	93180LC	v7.0.3.17.1	08312017
NXOS	93180YC	v7.0.3.14.6	03102017

« Back
Next »
Cancel

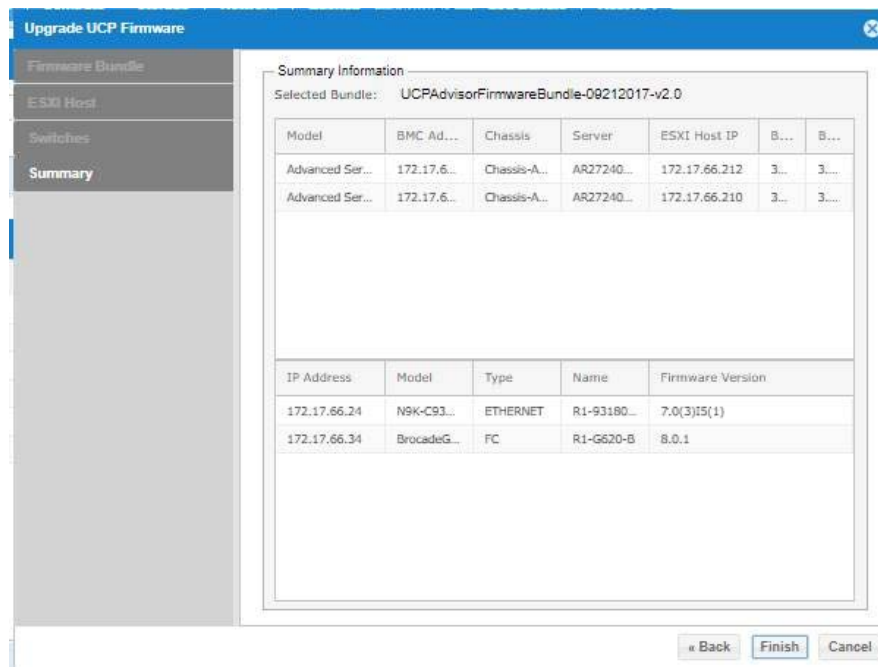
7. Select the servers.



8. Select the switches.



9. Verify the upgrade information from the **Summary Information** window, then click **Finish**.

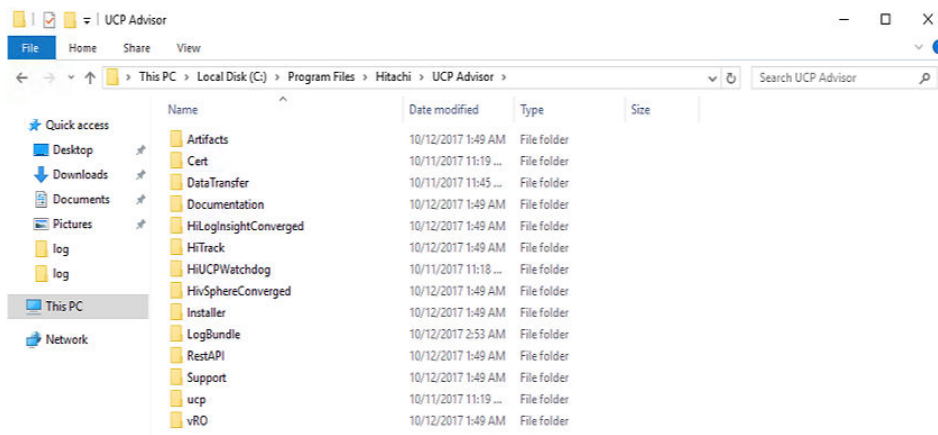


Generating and downloading log files

You can generate and download UCP Advisor system log file bundles for failure analysis and troubleshooting.

Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Log Bundle** tab.
3. Click **Generate Log Bundle**.
The **Log Bundles generated successfully** dialog box appears.
4. Click **Download** to download the log bundles.
The zipped (.zip) file of log bundles is downloaded to your local download directory.
5. Unzip the downloaded file and review as required.
The following figure shows an example set of downloaded log bundles.



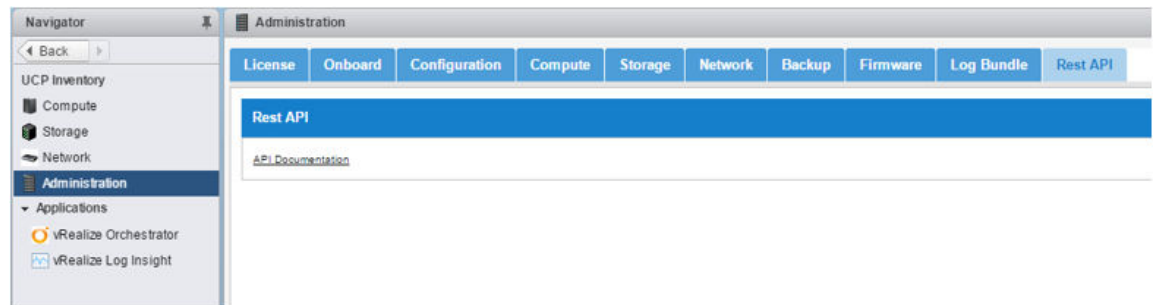
6. If required, contact Hitachi Vantara Corporation customer support for technical support at the following location:
<https://www.hitachivantara.com/en-us/services/customer-support-services.html>
 Have the downloaded log bundles zip file ready to send in an email to the Hitachi technical support representative.

Using the UCP Advisor REST API


You can use the UCP Advisor REST API to perform management functions. The RESTful APIs are described and documented in the Swagger UI that is displayed from UCP Advisor.


Procedure

1. In the **Navigator** window, click **Administration**.
2. Click the **Rest API** tab.



3. Click **API Documentation**.

 **swagger**

default (/v2/api-docs) 

Explore

UCP Advisor REST API

Hitachi Unified Compute Platform Advisor API

Created by Hitachi Vantara
See more at <https://www.hitachivantara.com/en-us/products-solutions/converged-infrastructure.html>

compute-devices : Register, remove, and view information for servers	Show/Hide	List Operations	Expand Operations
fibre-channel-alias : Assign alias's to storage ports SAN Fabric(s)	Show/Hide	List Operations	Expand Operations
firmware : Upload firmware and trigger device upgrades	Show/Hide	List Operations	Expand Operations
network-devices : Register, remove ethernet and fibre channel switches	Show/Hide	List Operations	Expand Operations
raid-groups : Create and manage RAID Groups (Parity Group)	Show/Hide	List Operations	Expand Operations
storage-devices : Register or remove storage systems	Show/Hide	List Operations	Expand Operations
storage-pool : Create and manage storage pools	Show/Hide	List Operations	Expand Operations
storage-ports : Create, manage host groups and view storage port information	Show/Hide	List Operations	Expand Operations
system : Get information on appliance(s) and get session tokens	Show/Hide	List Operations	Expand Operations
vians : Create and manage vians	Show/Hide	List Operations	Expand Operations
vmware : Create mount and expand Datastores	Show/Hide	List Operations	Expand Operations
volumes : Create and manage volumes	Show/Hide	List Operations	Expand Operations
zone-configs : Create and manage SAN Fabric zone configs	Show/Hide	List Operations	Expand Operations
zones : Create and manage SAN Fabric zones	Show/Hide	List Operations	Expand Operations

[BASE URL: /api/v1/ , API VERSION: Version 2.0.0]

- Click the desired options for detailed information.

Initiating A UCP Advisor API session

To initiate a UCP Advisor API session, you must first get information on the available appliances and generate the required session tokens by invoking the following commands:

GET/services/system/actions/GetAppliances/Invoke

Response Body

```
[
  {
    "Id": "a4fc0c0e-b573-411a-a25a-d343f5d1cbc8",
    "Model": "UCP CI",
    "Name": "SCpodB_test",
    "UcpAgentHost": "172.17.66.245",
    "UcpAgentPort": 8444,
    "SerialNumber": "UCP-CI-000002"
  },
  {
    "Id": "3490c15a-4002-4d1d-8b4a-88a2c116de99",
    "Model": "UCP CI",
    "Name": "SCpodB",
    "UcpAgentHost": "172.17.57.138",
    "UcpAgentPort": 8444,
    "SerialNumber": "UCP-CI-000001"
  }
]
```

```
}
]
```

POST /services/system/actions/Authenticate/invoke

Run the authenticate API with appropriate appliance information to get a session token.

```
payload
{
  "applianceId": "a4fc0c0e-b573-411a-a25a-d343f5d1cbc8", (Copy this
  appliance ID from above get appliances output)
  "password": "Passw0rd!",
  "username": "administrator@scpodb.local",
  "vcenterIp": "172.17.66.246"
}
```

Response Body

```
190ace68-d7bb-457a-a859-303378e65b34
```



Note: To run any API's in Swagger, use the above session token and provide the required input parameter.

GET /compute/services/compute-devices/actions/GetAllComputeDevices/invoke

Parameters				
Parameter	Value	Description	Parameter Type	Data Type
X-Auth-Token	190ace68-d7bb-457a-a859-303378e65b34	X-Auth-Token	header	string

Response Body

```
[
{
  "ApplianceId": "a4fc0c0e-b573-411a-a25a-d343f5d1cbc8",
  "BMCLoginId": "admin",
  "BMCLoginPassword": "cmb9.admin",
  "BMKVersion": "3.67.06",
  "BiosVersion": "3A10.H2",
  "BladeIP": "172.17.66.110",
  "BmcOS": null,
  "CMKVersion": null,
  "CPUInfo": 2,
  "ChassisFirmwareVersion": null,
  "ChassisLabel": "Chassis-AR272400015",
  "ChassisSerialNumber": null,
  "ChassisUniqueKey": "Chassis-AR272400015",
  "ChassisVendor": "Hitachi Data Systems",
  "Chipset": "AST2500(A2)",
  "Cluster": "Unallocated",
  "Datacenter": "Unallocated",
  "DeviceId": "001c4c (Quanta) 3542 ",
```

Using the UCP Advisor CLI

You can use the UCP Advisor CLI to perform management functions. The following procedure is for the Windows platform.

Before you begin

Create an environment variable called UCPA_HOST (For Linux and Mac place this in your .bashrc, for windows go to Advance Settings in System Properties) - export UCPA_HOST= https:// <ucp-advisor-IP>:23015.

Download the UCP CLI package from the UCP Advisor media kit or UCP Advisor installed path.

Procedure

1. Open a command prompt and navigate to C:\Program Files\Hitachi\UCP Advisor\ucp\cli\win.

```
C:\Program Files\Hitachi\UCP Advisor\ucp\cli\win>ucpctl.exe
NAME:
    ucpctl.exe

USAGE:
    ucpctl.exe [global options] command [command options] [arguments...]

VERSION:
    0.1.0

COMMANDS:
    env      Command to show the ucp advisor server IP address
    info     View information about client and server
    list     List appliances
    login    Login to an appliance
    ex: ./ucpctl login --username user --vcenterIp 10.11.23.25 --applianceId 13123

    describe  List resources
    create    Create resources
    delete    Delete resources
    expand     Expand a resource
    register   Register a new device
    deregister Deregister a registered entity
    invoke     Run actions or set properties on resources
    help, h    Shows a list of commands or help for one command

GLOBAL OPTIONS:
    --help, -h    show help
    --version, -v print the version
```

2. Enter **ucpctl.exe list** to get a registered UCP appliance in UCP Advisor.

```
C:\Program Files\Hitachi\UCP Advisor\ucp\cli\win>ucpctl.exe list
- Id: a4fc0c0e-b573-411a-a25a-d343f5d1cbc8
  Model: UCP CI
  Name: SCpodB_test
  UcpAgentHost: 172.17.66.245
  UcpAgentPort: 8444
- Id: 3490c15a-4002-4d1d-8b4a-88a2c116de99
  Model: UCP CI
  Name: SCpodB
  UcpAgentHost: 172.17.57.138
  UcpAgentPort: 8444
```

3. Initiate the login and provide the previously returned appliance ID, then enter the vCenter credential to create a valid session as shown in the examples below.

```
C:\Program Files\Hitachi\UCP Advisor\ucp\cli\win>ucpctl.exe login --username administrator@scpdb.local -vcenterIp 172.17.66.246 --applianceId a4fc0c0e-b573-411a-a25a-d343f5d1cbc8
administrator@scpdb.local password:

Sat Jan 13 06:32:45 -0800 PST 2018 Hitachi Unified Compute Platform Advisor
Appliance: a4fc0c0e-b573-411a-a25a-d343f5d1cbc8
```

After a session token has been generated, all CLI's can be invoked with the required input parameter.

```
C:\Program Files\Hitachi\UCP Advisor\ucp\cli\win>ucpctl.exe describe compute-devices
- ApplianceId: a4fc0c0e-b573-411a-a25a-d343f5d1cbc8
  BMCLoginId: admin
  BMCLoginPassword: cmb9.admin
  BMCVersion: 3.67.06
  BiosVersion: 3A10.H2
  BladeIP: 172.17.66.110
  BmcOS: null
  CMCVersion: null
  CPUInfo: 2
  ChassisFirmwareVersion: null
  ChassisLabel: Chassis-AR272400015
  ChassisSerialNumber: null
  ChassisUniqueKey: Chassis-AR272400015
  ChassisVendor: Hitachi Data Systems
  Chipset: AST2500(A2)
  Cluster: Unallocated
  Datacenter: Unallocated
  DeviceId: '001c4c (Quanta) 3542 '
  FabricId: null
  FanStatus: Normal
  GlobalResourceId: UCP-CI-000002.SRV.AR272400015
  GuestOS: N/A
  HardDiskStatus: Present
  HostIp: 172.17.66.210
  HostPassword: Passw0rd!
  HostUsername: root
  IntrusionState: inactive
  IsCoolingFanAtFault: false
```

Chapter 6: Troubleshooting

Common problems and possible solutions are described in this module.

Accepting the SSL certificate

Use the following guidelines and suggested steps to help resolve common failures when accepting SSL certificates.

Condition:

When the vRLI is selected from the Navigator, UCP Advisor displays an error message instead of the vRLI logon screen.

What it Means:

The SSL certificate has not been accepted for vRLI for this particular domain.

Corrective Action:

The certificate must be accepted.

To accept the SSL certificate, follow these steps:

1. Open another tab in the vRLI logon page.
2. Enter the same vRLI IP address in the URL field (for example, `https://<IP address>/`).
3. If the web browser does not automatically accept the SSL certificate, manually accept it.

Configuring vRLI

Use the following guidelines and suggested steps to help resolve common vRLI failures.

Condition:

The vRLI configuration does not work.

What it Means:

Incorrect vRLI IP address and credentials may have been entered.

Corrective Action:

The credentials must be correct when deploying vRLI.

To configure vRLI, follow these steps:

1. In the Navigator, click **Administration**.
2. Click the **Configuration** tab.
3. In the vRealize Log Insight area, click the plus icon.

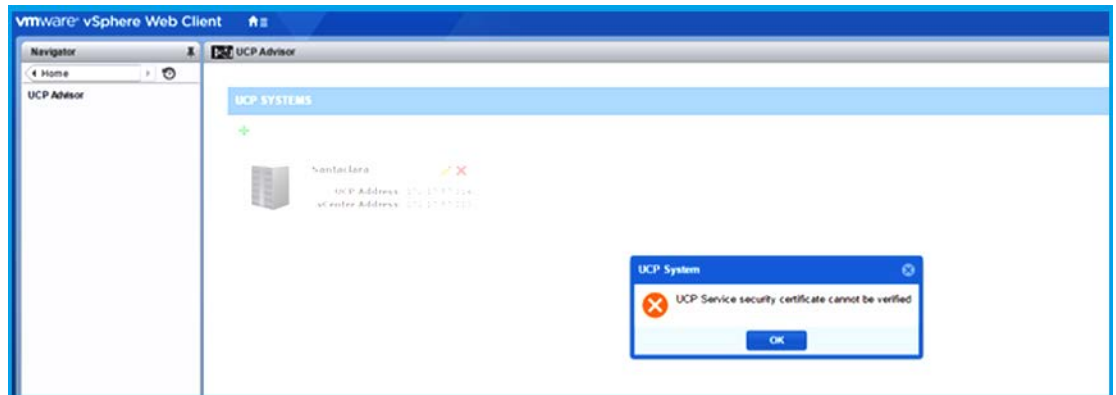
4. Enter a host name or IP address.
5. Enter a vRLI account name and password.
6. Click OK.

Troubleshooting UCP Advisor session timeouts

Use the following guidelines and suggested steps to help resolve common failures when UCP Advisor session timeouts occur.

Condition:

The UCP Advisor session suddenly stops because it has been idle for too long. An error message, similar to the following figure, might appear.



What it Means:

The UCP Advisor plugin cannot access the web service.

Corrective Action:

Restart the UCP Advisor web service.

To restart the UCP Advisor web service, follow these steps:

1. From the taskbar, click Services.
2. Right-click the Hitachi UCP Advisor Services entry, then click Restart.

If this symptom persists after you restart the UCP Advisor web service, confirm that the self-signed certificate used for HTTPS access exists. The certificate (UCPAdvisor.cer) should be located in <C:\Program Files\Hitachi\UCP Advisor\Cert>.

If the certificate does not exist in the folder, perform the following steps:

1. Run the following PowerShell command:

```
New-SelfSignedCertificate -CertStoreLocation cert:\localmachine
\<My_DNS_hostname>
```

2. Run the following PowerShell command:

```
Export-Certificate -Cert (Get-ChildItem -Path cert:\LocalMachine
\<My_DNS_hostname>\B6FA9B3A0FEB81E77BC0708 55) -FilePath "C:
\Program Files\Hitachi\UCP Advisor\Cert\UCPAdvisor.cer"
```

3. Restart the web service.

If the symptoms persists even after you create the certificate, clean up the SSL certificate for port 23011 by performing these additional steps:

1. Run the following command to identify the SSL certificate:

```
netsh http show sslcert ipport=0.0.0.0:23011
```
2. Run the following command to remove the SSL certificate from port 23011:

```
netsh http delete sslcert ipport=0.0.0.0:23011
```
3. Delete the SSL certificate from the certificate store. Locate the SSL certificate with the thumbprint that matches the output Certificate Hash in the certificate store called Local Computer in the Certificates MMC snap-in.
4. Delete the SSL certificate.
5. Delete all files in the C:\Program Files\Hitachi\UCP Advisor\Cert folder.

Create and export a new self-signed SSL certificate by performing these steps:

1. To create a new self-signed SSL certificate, run New-SelfSignedCertificate. The cmdlet outputs the new certificate thumbprint.
2. In the PowerShell console Window, run the following cmdlet:

```
New-SelfSignedCertificate -dnsname <host name> -  
CertStoreLocation cert:\LocalMachine\<My_DNS_hostname>
```
3. To export the new self-signed SSL certificate as a .cer file from the certificate store, run the following command:

```
Export-Certificate -Cert cert: \LocalMachine\<My_DNS_hostname>\  
<New-SelfSignedCertificate_Thumbprint> -FilePath "C:\Program  
Files\Hitachi\UCP Advisor\Cert\UcpAdvisor.cer"
```
4. Restart the UCP Advisor web service.

Troubleshooting UCP Advisor after running the installer

Use the following guidelines and suggested steps to help resolve common UCP Advisor failures after running the installer.

Condition:

After a successful UCP Advisor installation, you cannot access the Dashboard or launch a UCP Advisor instance.

What it Means:

This may happen when one or more services required by UCP Advisor are not running.

Corrective Action:

Verify that the required UCP Advisor services are all running. If the services are not running, start any stopped services with the following steps:

1. From the taskbar, click Services.
 Verify that all of the following services are running:
 - Hitachi UCP Advisor Services
 - Hitachi vRO Converge Web Service

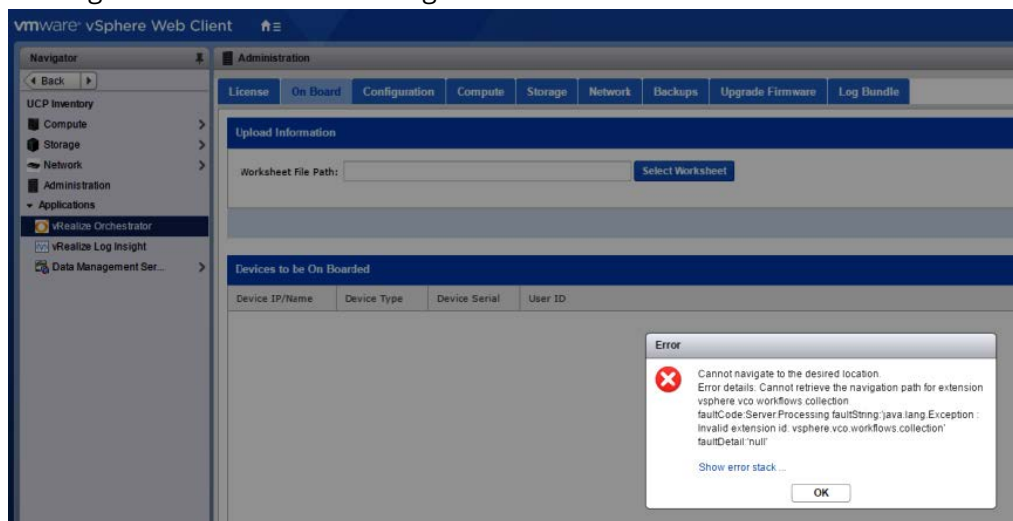
- Hitachi UCP Advisor Hi-Track Web Service
 - Redis
 - Hitachi UCP VI Service
 - Hitachi Syslog Agent for vRLI
 - HiWatchdogServiceForUCPAdvisor
2. If one of the services is not running, right-click on the service.
 3. Click Restart.

Troubleshooting vRealize Orchestrator

Use the following guidelines and suggested steps to help resolve common vRO failures.

Condition:

Clicking on vRealize Orchestrator generates an error.



What it Means:

This may happen when vRealize Orchestrator is not properly configured with vCenter.

Corrective Action:

Verify that vRealize Orchestrator is registered with the vCenter server before invoking vRealize Orchestrator from the UCP Advisor application.

Troubleshooting slow performance

Use the following guidelines and suggested steps to help resolve common UCP Advisor slow performance issues.

Condition:

You have successfully installed UCP Advisor, but performance for navigation and adding devices is slow.

What it Means:

Frequently, this means that several UCP Advisor resources may be overloaded.

Corrective Action:

Verify that UCP Advisor resources are not overloaded by following these steps:

1. Verify that the Hypervisor is not overloaded to the point where the performance is degraded. If the Hypervisor is heavily loaded, consider moving the appliance to a host that is not as busy.
2. Verify that an appropriate amount of free disk space remains.

Manually removing content after uninstallation

After uninstalling older versions of UCP Advisor, some unwanted content may still remain and can be removed by following this procedure.

Procedure

1. Log on to vCenter Server Appliance (vCSA) using the root credential.
2. Run the following commands to remove content that the uninstallation script has not removed:


```
rm -rf /tmp/vmware-root/com.hitachi.ucp.advisor-servicespec.prop
rm -rf /etc/vmware/vsphere-client/vc-packages/vsphere-client-serenity/com.hitachi.ucp.advisor-2.0.0
rm -rf /etc/vmware-vpx/extensions/com.hitachi.ucp.advisor
rm -rf /etc/vmware-vpx/locale/com.hitachi.ucp.advisor_catalog.zip
rm -rf /etc/vmware/vsphere-client/cmCatalog/
com.vmware.cis.com.hitachi.ucp.advisor.zip
```
3. Run the following commands to remove the appliance configuration files:


```
rm -rf /usr/lib/vmware-vsphere-client/server/ucpconfiguration.json
rm -rf /usr/lib/vmware-vsphere-client/server/UCPConvergeLog.properties
```
4. Run the following command to remove old log files:


```
rm -rf /storage/log/vmware/vsphere-client/logs/HitachiUCPConverge.log
```
5. Browse to the following path:


```
https://VCSA_IP_Address/mob
```
6. Select the hitachi.ucp.advisor extension and unregister the extension.
7. Go to vCSA again and run the following commands to restart the web client service:


```
Service-control -stop vsphere-client
Service-control -start vsphere-client
```

After performing these steps, the leftover content from the UCP Advisor uninstallation process should be successfully removed.

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