

# HPE OneView Deployment and Management Guide

**HPE OneView 4.1**

## Table of contents

Introduction .....	5
HPE OneView 4.1 Features .....	5
Supported Hypervisors and Versions .....	6
Browser Requirements .....	7
Supported Hardware .....	7
HPE OneView User Interface Overview .....	10
HPE OneView Virtual Connect Management Architecture Overview .....	10
Deploying Your Appliance .....	11
Microsoft Windows Server 2008/2012/2016 Hyper-V .....	11
VMware vSphere 5.x or Newer .....	13
KVM .....	18
Guided Setup .....	21
First Time Setup .....	22
Installation Checklist .....	22
HPE Synergy Composer First Time Setup .....	26
Set Time and Language (Optional) .....	30
HPE OneView Appliance based Firmware Repository .....	32
External based Firmware Repository .....	33
Adding HPE OneView Advanced Licenses to the HPE OneView Appliance .....	36
Network Configuration .....	38
Network Configuration Checklist .....	38
Creating Ethernet Networks .....	39
Creating Fibre Channel Networks .....	42
Creating Network Sets .....	48
Create Logical Interconnect Group .....	52
Reviewing Logical Interconnect Group Configuration .....	62
Create Enclosure Group .....	63
Setting up Remote Support for supported devices .....	66
(Optional) Setting up Insight Online .....	69
Import a Managed Enclosure .....	71

Enclosure Import Checklist .....	71
Examine Imported Resources.....	76
Examine Relationships.....	79
Using Labels.....	82
Importing a ProLiant DL, ML or Apollo Managed Server .....	83
Importing a ProLiant DL, ML, Apollo or SuperDomeX Monitored Server.....	86
Importing a Range of Servers as Managed Devices.....	88
Importing a Range of Servers as Monitored Devices.....	91
Adding HPE 3PAR StoreServ System .....	93
HPE OneView Import HPE 3PAR StoreServ Checklist .....	94
Importing HPE 3PAR StoreServ System.....	103
Examine Imported HPE 3PAR StoreServ System .....	109
Import Existing StoreServ Volumes.....	110
Create Storage Volume Templates for StoreServ Volumes.....	113
Creating StoreServ Storage Volumes.....	118
Enabling 3PAR Compression and using Large Volumes.....	125
Brocade FC Interconnect Module SAN Storage Support .....	128
Importing HPE StoreVirtual VSA System .....	134
Create Storage Volume Templates for StoreVirtual Volumes.....	137
Creating StoreVirtual Storage Volumes.....	142
Upgrade Infrastructure Firmware .....	146
Managing Virtual Connect Firmware.....	147
Creating Server Profiles .....	150
Create Server Profile for Template Use.....	150
Creating Server Profiles from a Server Profile Template.....	165
Assign a Server Profile to a newly discovered server.....	167
Import Hypervisor Manager .....	169
Create ESX Cluster Profile .....	171
Create One-Off Server Profile .....	177
Create a Server Profile for Gen9 or newer DL Servers .....	192
Create a Server Profile for Gen8 Servers.....	199
Add New Blade to Enclosure (Optional).....	205
Environment Management .....	206
Physical data center configuration .....	206
Importing a HPE Superdome Flex .....	211
Configuring power delivery topology for the data center .....	213
Adding HPE iPDUs.....	213
Adding Unmanaged Devices .....	215
Securing the Appliance.....	216
(Optional) Integrating Active Directory/LDAP Security .....	216
Active Directory or OpenLDAP Checklist .....	216

(Optional) Integrating with Active Directory/OpenLDAP .....	217
(Optional) Integrating with Two-Factor Authentication .....	221
Creating a Scope.....	223
Maintaining Your Appliance .....	226
Import/Migrate a Virtual Connect Managed Enclosure.....	226
Import an Enclosure for Monitoring .....	231
Changing the IP address of the HPE OneView Appliance .....	233
Changing the SNMP Read String of the HPE OneView Appliance .....	234
Configuring SNMP v3 .....	236
Backing up the HPE OneView Appliance – Onetime method .....	240
Restoring an HPE OneView Appliance from Backup.....	241
Setting a remote Backup location and Schedule for Backups .....	243
Setting up Remote Support for supported devices .....	246
(Optional) Setting up Insight Online .....	249
Viewing Reports .....	250
Exporting Reports .....	251
Printing Reports .....	253
Creating New Users .....	255
Deleting Existing Users .....	257
Creating Groups.....	258
Changing User Permissions .....	261
Adding a Dashboard Panel to the HPE OneView Dashboard .....	262
Removing a Dashboard Panel from the HPE OneView Dashboard.....	265
Alerts and Monitoring.....	265
Viewing Activity, Alerts and Tasks .....	269
Multi-use Commands .....	270
Migrating a Server Profile .....	271
Add New Networks to a Logical Interconnect Group .....	275
Create a Server Profile Template from existing server profile.....	280
Edit Server Profile .....	282
Assign a Server Profile to a newly discovered server .....	284
Create ESX Cluster Profile .....	286
Perform rolling cluster update on ESX cluster .....	291
Configuring Boot from third party LUNs in a Server Profile.....	295
Changing the IP address of a managed resource (enclosure).....	296
Adding a New Enclosure .....	298
Adding an Ethernet Network.....	302
Adding a Fibre Channel Network.....	305
Adding an Ethernet Uplink to a Logical Interconnect .....	307
Adding a Fibre Channel Uplink .....	310
Create Additional Storage Volume Templates for StoreServ Volumes .....	313

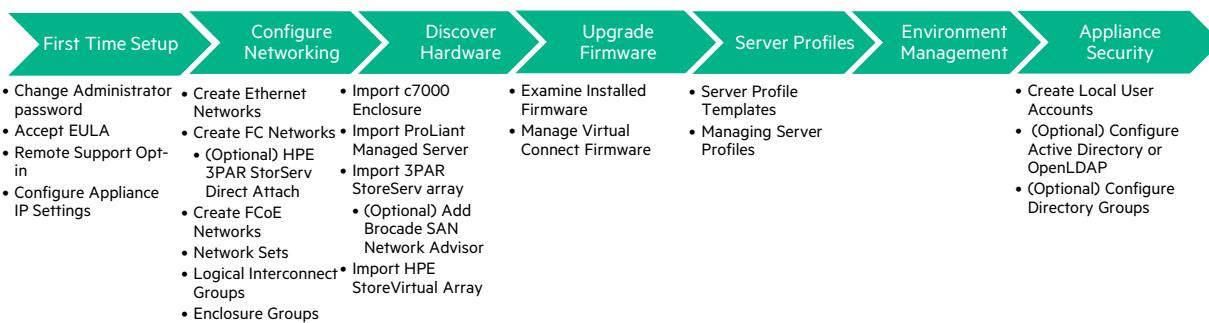
Create Additional StoreServ Storage Volumes.....	317
Create Additional Storage Volume Templates for StoreVirtual Volumes .....	320
Create Additional StoreVirtual Storage Volumes.....	325
Configuring 3PAR Thin Dedupe on Volumes .....	329
Create Storage Snapshots .....	331
Viewing Storage Snapshots.....	333
Deleting Storage Snapshots .....	334
Reverting to previous Storage Snapshots.....	335
Removing Networks from a Server Profile .....	337
Deleting a volume from HPE OneView .....	340
Adding a New Blade to an Enclosure and Discovering New Server Hardware Types.....	342
Adding New Racks Based on Location Discovery Services .....	343
Adding Enclosures to Racks without Location Discovery Services .....	343
Adding Servers to Racks without Location Discovery Services .....	344
Adding a Service Pack for ProLiant (SPP) Bundle .....	346
Adding an External SPP Repository .....	348
Updating the Firmware Baseline for Servers deployed with Server Profile Templates .....	350
Updating the Firmware Baseline for Single Servers with Profiles Assigned .....	354
Managing Multiple Firmware Images in the Same Enclosure .....	356
Deleting a Service Pack for ProLiant (SPP) Bundle .....	363
Modifying Virtual ID Pools .....	363
Creating a Support Dump .....	365
Appendix .....	368
Appendix A: Sample HPN 5900CP FCF Switch Configuration.....	368
Appendix B: Features from Previous HPE OneView releases .....	374
Appendix C: REST API .....	377
Appendix D: Accessing the REST API with PowerShell.....	378
Additional Resources.....	380

## Introduction

Welcome to the Deployment and Management Guide for the HPE OneView 4.1 release. This document is intended to be a quick start guide as well as a reference guide for operations and administrators of HPE OneView.

HPE OneView provides a simple, consumer-inspired user experience that dramatically accelerates the everyday tasks of a Composable Infrastructure. By changing the focus from ‘how devices are managed’ to ‘how people work,’ HPE OneView delivers a software-defined management platform that is extensible and easy to use.

This first half of the document will guide administrators through the setup process, and how to manage the next generation of Composable Infrastructure with HPE OneView. The flow chart below outlines these steps.



This second half of the document will serve as a reference guide to administrators for the various functions they will encounter day to day as they Manage an environment with HPE OneView.

## HPE OneView 4.1 Features

The following list outlines the features in the HPE OneView 4.1 release:

**Table 1.** HPE OneView 4.1 Features

<b>HPE OneView Cryptography Support</b>	HPE OneView offers options to configure management appliances to be compliant with the Federal Information Processing Standard FIPS-140-2 (FIPS 140-2) and Commercial National Security Algorithm (CNSA) standards or to continue using the legacy cryptography mode. In the FIPS 140-2 and CNSA mode, the appliance restricts protocol versions, cipher suites, and digital certificate strength to FIPS 140-2 and CNSA-compliant ones, respectively.
<b>iLO Security Modes Support</b>	iLO 5 High Security, FIPS, and CNSA (Suite B) modes are supported. Online and offline firmware updates supported for all iLO 5 security modes
<b>Gen10 high security/FIPS mode firmware and driver updates</b>	With SUT 2.2.0 and SUM 8.2.0, firmware and driver's updates are supported when the iLO is in a high security or a FIPS mode.
<b>Customizable TLS versions</b>	REST API to selectively disable TLS1.0 and/or TLS1.1
<b>Update BIOS settings with server powered on</b>	BIOS Settings can be modified while the Server Hardware is powered on. This new feature is supported in Gen9 or later servers. The new BIOS settings are effective at the next power on.
<b>Assign profile (firmware and BIOS only) to DL/XL/ML servers when powered on</b>	HPE OneView now supports customers that want to adopt HPE OneView on existing servers but cannot bring production workloads offline to apply a profile. Server profiles with certain configurations can be assigned and unassigned while the server hardware is powered on. This support is available for (1) Firmware management with Smart Update Tools on all managed Gen8 and later servers (2) BIOS Settings management on all managed Gen9 or later servers and (3) Physical Serial Number/UUID on HPE Synergy and BladeSystem
<b>ESXi Cluster profiles</b>	The base for the cluster provisioning is the server profile template that comprises BIOS settings, connections, enclosure group, firmware baseline settings, and storage volumes. This template is then used when creating a cluster profile along with other settings such as IP pool assignment, OS deployment method, hypervisor attributes, and the allocation policy. Once the cluster profile is defined, the cluster can be provisioned. The entire process can be performed through HPE OneView UI or API.

<b>Firmware rolling cluster update</b>	This update supports ESXi environments with Virtual Connect. This update allows users to update the virtual hosts (an ESXi virtual cluster) in a rolling fashion by taking a host and placing it in maintenance mode, draining off the VMs (vMotion) and performing the firmware update, migrating VMs back onto the host, and then proceeding to the next host in the cluster for firmware update. The logical enclosure firmware update is done in a cluster aware manner if the Orchestrated interconnect activation mode is chosen when updating shared infrastructure and server profiles.
<b>iLO repository-based offline updates (Gen10)</b>	In this new approach, all the components are staged to the iLO NAND, which provides 1GB space to stage the bits. Each component is validated by iLO for a trusted HPE signature. If a valid signature is not found, that component will not be flashed
<b>3PAR large volume and compression support</b>	HPE OneView manages compression state of 3PAR volumes over volume lifetime and supports 3PAR volumes up to a maximum size of 64TiB (increased from 16TiB)
<b>Brocade FC interconnect modules supported by SAN storage volume management</b>	HPE OneView supports server profile and server profile template driven SAN storage automated volume provisioning and attaches management when using Brocade Fibre Channel interconnect modules. Supported configurations include HPE Synergy and c-Class Gen9 or above servers connected to Brocade FC 8Gb and 16Gb interconnect modules uplinked to external Brocade SANs connected to 3PAR storage.
<b>Port Mirroring on downlinks</b>	Server Administrator can reserve a server 'port' in the server profile or server profile template and assign a network(s) in the future while server power is on
<b>Cisco ACI integration</b>	Provides user-defined and policy-driven monitoring of both HPE OneView resources and APIC policies
<b>Email notification for case open/close</b>	Email notifications will be sent for cases and contract expiry. Users can configure emails to be sent on support case creation, support case close, and when contracts/warranties are 90, 60, 30 days from expiring, or already expired.
<b>Rack Manager for Superdome Flex</b>	HPE OneView supports adding an HPE Superdome Flex complex for hardware monitoring. In this section you will Superdome Flex server by adding the IP address or FQDN of its Rack Manager Controller (RMC).
<b>HPE OneView Remote Technician</b>	Provides remote device access for authorized support technician with the permission of the customer. HPE support technician can securely connect remotely to the HPE OneView appliance for troubleshooting and resolution

## Supported Hypervisors and Versions

Please note that the following hypervisors are the minimum requirement to host the OneView Virtual Appliance:

**Table 2.** Supported Hypervisors and Versions

<b>VMWare vSphere ESXi</b>	5.5 5.5 Update 1 5.5 Update 2 5.5 Update 3 6.0 6.0 Update 1 6.0 Update 2 6.0 Update 3 6.5 6.5 Update 1 6.5 Update 2 6.7
<b>Microsoft Hyper-V</b>	Hyper-V is supported on the following Microsoft Windows platforms with the Hyper-V role installed: <ul style="list-style-type: none"><li>• Windows Server 2012 (on ProLiant Gen8 and ProLiant Gen9 platforms)</li><li>• Windows Server 2012 R2 (on ProLiant Gen10 platforms)</li><li>• Windows Hyper-V Server 2012</li><li>• Windows Hyper-V Server 2012 R2</li><li>• Windows Server 2016</li><li>• Microsoft Hyper-V Server 2016</li></ul>
<b>KVM</b>	RHEL 7.2 RHEL 7.3 RHEL 7.4 RHEL 7.5

## Recommended minimums for the OneView Virtual Appliance

- Four 2-GHz or greater virtual CPUs
- 16 GB of memory
- 275 GB of thick-provisioned disk space

## Browser Requirements

Please note that the following web browsers are a minimum requirement:

**Table 3.** Supported Browsers

<b>Internet Explorer</b>	11
<b>Mozilla Firefox</b>	45 or newer
<b>Mozilla Firefox Extended Support Release</b>	52 or newer
<b>Google Chrome</b>	54 or newer
<b>Microsoft Edge</b>	
<b>Safari</b>	Unsupported
<b>Opera</b>	Unsupported

## Supported Hardware<sup>1</sup>

### Supported Enclosures

- All Synergy 1200 Frames
- All c7000 BladeSystem Enclosures

### Supported Servers

- Advanced License Support
  - All HPE ProLiant Gen10 SY-family of servers
  - All HPE ProLiant Gen9 SY-family of servers
  - All HPE ProLiant Gen10 BL-family of servers
  - All HPE ProLiant Gen9 BL-family of servers
  - All HPE ProLiant Gen8 BL-family of servers
  - ProLiant DL 360, 380, 560 and 580 Gen10 server models
  - All HPE ProLiant Gen9 DL-family of servers
  - All HPE ProLiant Gen8 DL-family of servers
  - DL360 Gen8 and DL380 Gen8 servers support limited Server Profile configuration (BIOS Settings only)
  - All HPE Apollo 2000, 4000 and 6000 Gen9 servers
  - ProLiant ML 350 Gen9 and Gen10 servers
  - Limited server profile configuration for HPE ProLiant G7 servers
- Standard License Support
  - HPE ProLiant G6 servers
  - Superdome X servers
  - Superdome Flex servers
  - ProLiant Gen9 ML-family of servers

### Supported IO Adapters

- All HPE Flex-10, FlexFabric 10Gb and FlexFabric 20Gb adapters
- 8Gb Fibre Channel HBAs: HPE QMH2562 8Gb FC HBA, HPE LPe1205 8Gb HBA
- 16Gb Fibre Channel HBAs: HPE QMH2672 16Gb HBA, HPE LPe1605 16Gb HBA

<sup>1</sup> Please review the HPE OneView Support Matrix on <http://www.hpe.com/info/oneview/docs>

- Passive support<sup>2</sup> for 1Gb, non-Flex10, and InfiniBand adapters.

### **Supported Interconnects**

- HPE Virtual Connect FlexFabric 10Gb/24-Port Module
- HPE Virtual Connect FlexFabric 20Gb/40Gb F8 Module
- HPE Virtual Connect Flex-10 10Gb Ethernet Module
- HPE Virtual Connect Flex-10/10D Ethernet Module
- HPE Virtual Connect 20-port 8Gb Fibre Channel Module
- HPE Virtual Connect 24-port 8Gb Fibre Channel Module
- HPE Virtual Connect 24-port 16Gb Fibre Channel Module

### **Supported HPE 3PAR StoreServ Storage**

- HPE 3PAR StoreServ 7000/8000/9000
- HPE 3PAR StoreServ 10000/20000

### **Supported HPE StoreVirtual Storage**

- HPE StoreVirtual VSA
- HPE StoreVirtual 3200

### **Support Fibre Channel Fabric Managers**

- Brocade SAN Network Advisor (FC only)
- HPE 5700, 5900CP/AF, 5930, 5940, 5950, 7900, 12900 (FC & FCoE)
- Cisco Nexus 5500/6000 (FC & FCoE)
- Cisco MDS (FC & FCoE)

### **Hardware Firmware and Fibre Channel Fabric Manager Minimum Requirements**

Table 4 shows the minimum firmware requirements needed to successfully import an enclosure. Firmware will be updated via the appliance to the required versions later in this document.

**Table 4.** Minimum Firmware/Software Requirements

<b>Onboard Administrator</b>	4.31 or newer
<b>iLO5</b>	1.10 or newer
<b>iLO4</b>	2.44 or newer
<b>iLO3</b>	1.61 or newer
<b>iLO2</b>	2.13 or newer
<b>Virtual Connect</b>	4.10 or newer
<b>HPE 3PAR OS</b>	3.1.3 or newer
<b>HPE StoreVirtual LHOS</b>	12.0 or newer
<b>Superdome Flex Rack Management Controller</b>	2.4.98 or newer
<b>Brocade SAN Network Advisor</b>	12.1.4 or newer (excluding 14.2.0)

**Table 5.** Post Import Firmware Minimum Version

<b>Onboard Administrator</b>	4.01
<b>iLO5 for Gen10 Servers</b>	1.10
<b>iLO4 for Gen8 servers</b>	1.40
<b>iLO4 for Gen9 servers</b>	2.03
<b>iLO3</b>	1.70

<sup>2</sup> Device is allowed, but will not be managed by HPE OneView, nor the corresponding interconnect module via the Server Profile or Logical interconnect Group.

<b>Virtual Connect</b>	4.20
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**Note**

The Appliance Virtual Machine should not be deployed on a hypervisor within the same enclosure it will manage. Please use an externally available hypervisor host.

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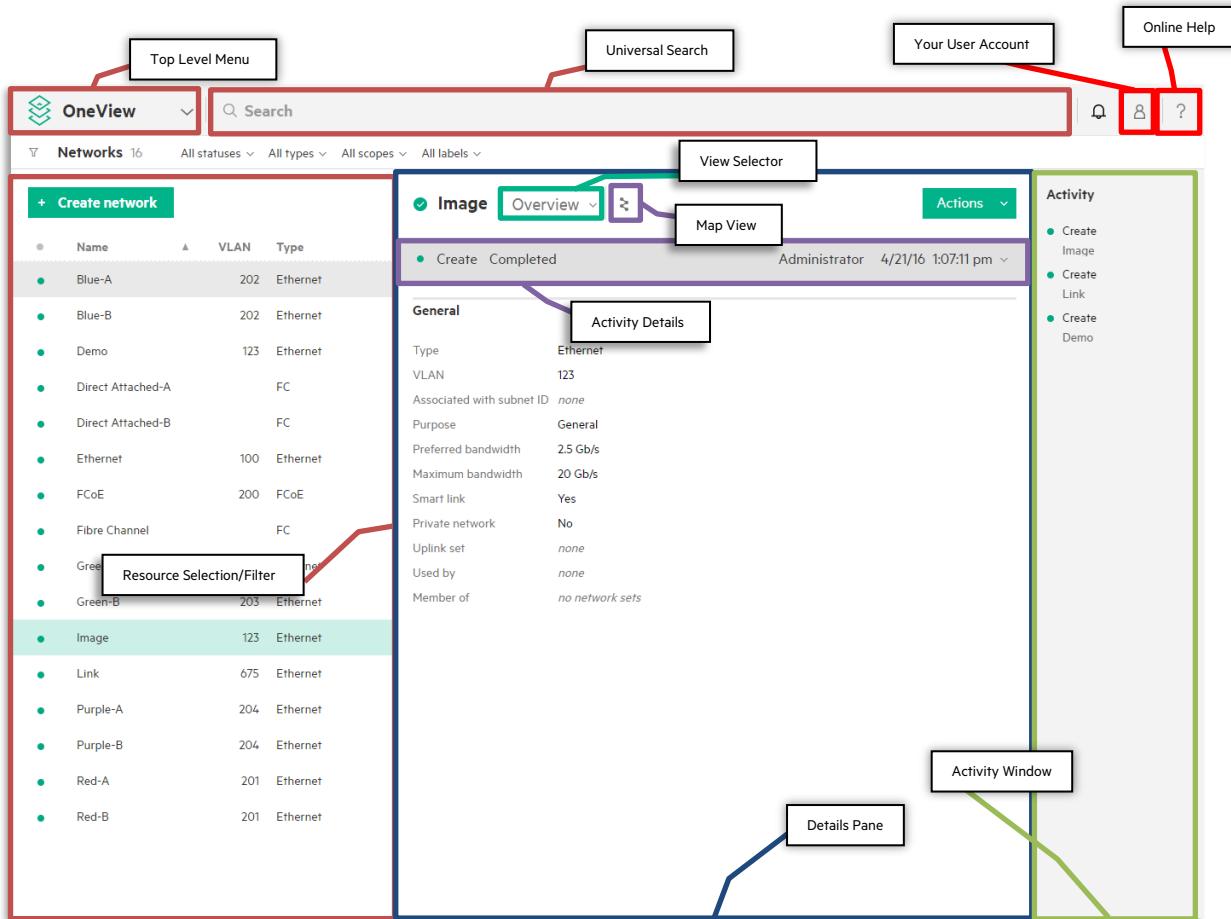
**Table 6.** Supported Maximums

<b>Total Servers</b>	1024
<b>Servers per Enclosure</b>	16
<b>Total Enclosures</b>	54
<b>Total Interconnects</b>	240
<b>Total Enclosure Groups</b>	54
<b>Total Server Profiles</b>	740
<b>Assigned Server Profiles</b>	640
<b>Total Unassigned Server Profiles</b>	100
<b>Total Monitored Servers</b>	1024

## HPE OneView User Interface Overview

The entirely new HPE OneView user experience is significantly improved from previous generations of HPE Management software (e.g. HPE System Insight Control.) The HPE OneView user interface is built using modern web programming languages, HTML5 and CSS3. Below is an example of what the User Interface (UI) looks like.

**Figure 1.** HPE OneView User Interface



- The Top-Level Menu is used for navigating the different sections of the UI. Each section is then categorized based on function and/or role (Servers, Networking, Storage, Facilities).
- The Universal Search bar defaults to local context searching but can also search the global index for resources the administrator is looking for.
- The Sub-Menu is where the current context view, or the Details Pane, can be changed for the select Resource.
- The Activity Details section within the Details Pane will display the most recent activity, whether it was an Administrator performing actions or an automated alert is generated. It can be expanded to view further details, and the administrator can then navigate to the activity item to clear, assign or provide notes regarding the event.
- The Actions menu is also context and resource specific and provide the administrator with specific actions to perform for a selected resource.
- The Activity Window displays the current activity of the administrator performing various actions within their session, which can be pinned out or collapsed to increase the viewing dimensions of the Details Pane. Individual activity items can be selected, and then directly navigated to in the case of Create and Update actions.

## HPE OneView Virtual Connect Management Architecture Overview

HPE OneView's Virtual Connect management architecture is different from that of Virtual Connect Manager (VCM) or even Virtual Connect Enterprise Manager (VCEM). While VCM provided a consolidated management view, it is limited to a maximum of 4 Enclosures within a Multi-Stack Enclosure (MES) Domain configuration. This limits management scalability. VCEM represents a Manager-of-Managers architecture, where VCM is put into a locked state, and VCEM controls the configuration. When an enclosure containing Virtual Connect modules is claimed and managed by HPE OneView, Virtual Connect Manager is no longer in use. It cannot be used for any level of management, as HPE OneView is the manager. There will be a hyperlink on the Virtual Connect Manager page to take the user to the HPE OneView that is managing that Virtual Connect instance.

## Deploying Your Appliance

This segment will guide you through deploying your HPE OneView appliance. It will cover the various steps within the First Time Setup experience.

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**Note**

It is not supported to deploy the HPE OneView Management appliance on a Virtual Machine host that is inside a blade enclosure managed by this HPE OneView instance.

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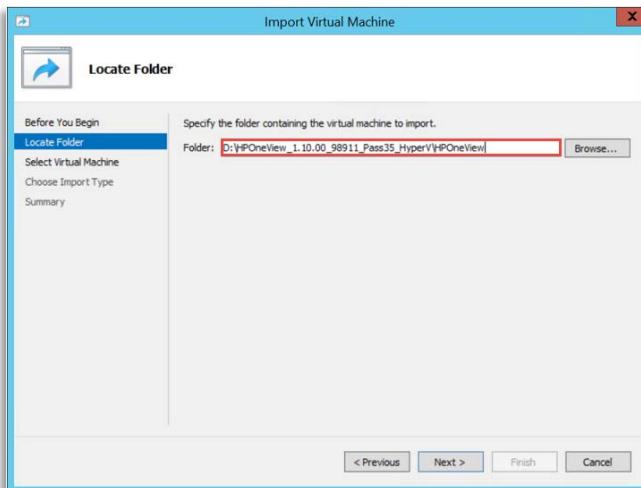
### Microsoft Windows Server 2008/2012/2016 Hyper-V

HPE OneView supports Microsoft Windows Server Hyper-V as a hosting platform. The following steps outline the process to import the template.

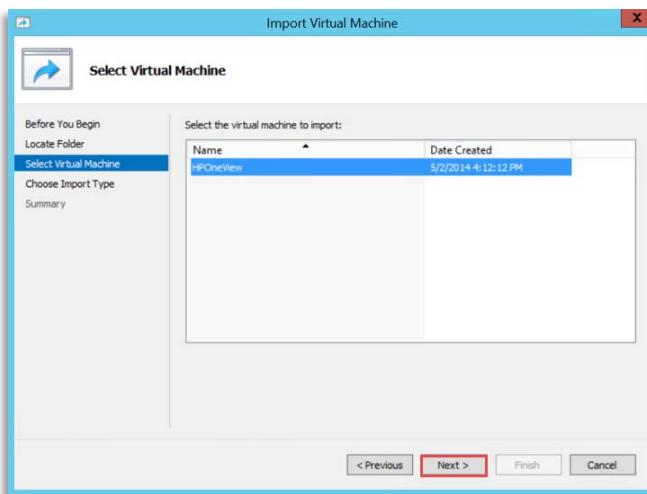
1. Within the Hyper-V Management Console, select **Import Virtual Machine**.



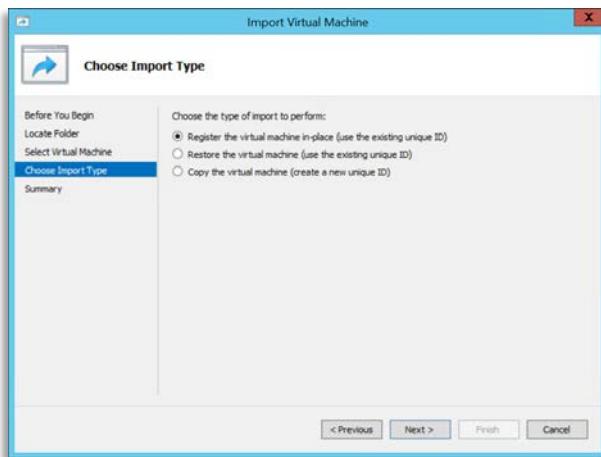
2. Specify the directory where the extracted appliance contents are located.



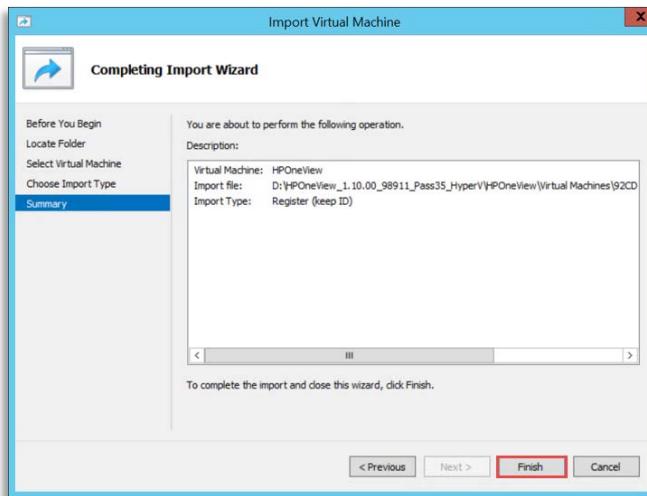
3. Click **Next**



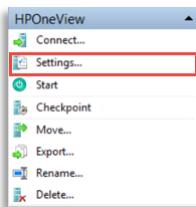
4. Select the appropriate option for your environment



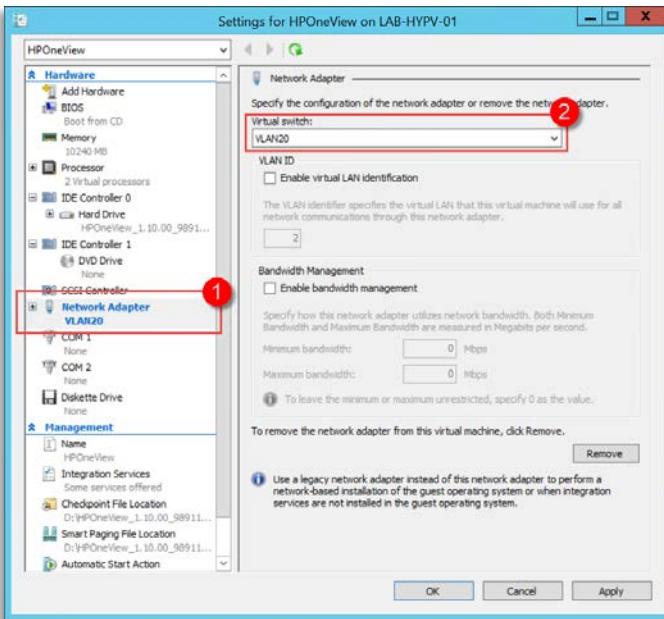
5. Click **Finish** at the Summary screen.



6. Once the VM has been deployed, edit the **Settings**.

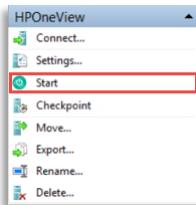


7. Under the VM settings, update the Network Adapter with the appropriate virtual switch.



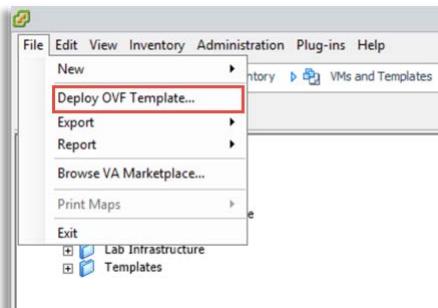
8. Click **OK** to save the settings

9. **Start** the virtual machine.

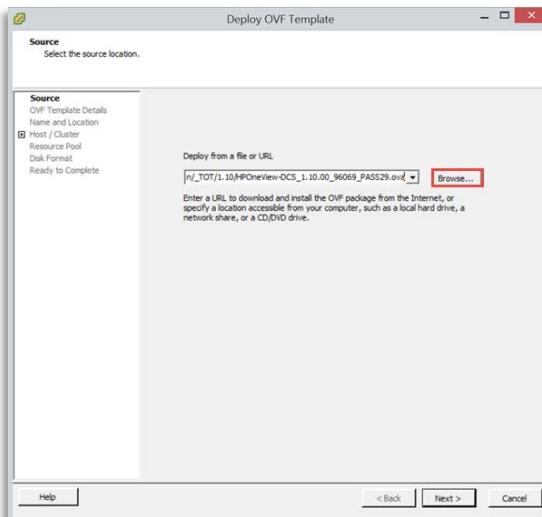


## VMware vSphere 5.x or Newer

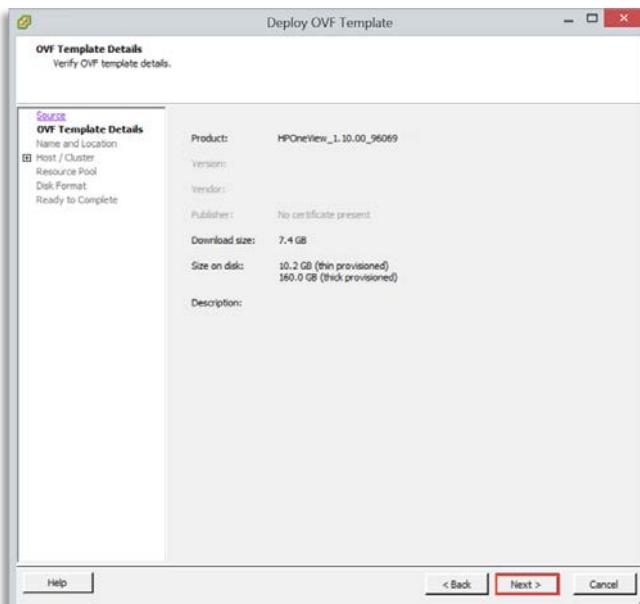
1. Select **File > Deploy OVF Template** within vSphere



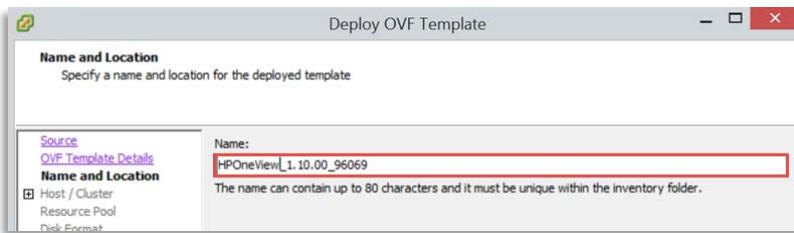
2. Select **Browse** then select the OVA file from the location where the file is stored



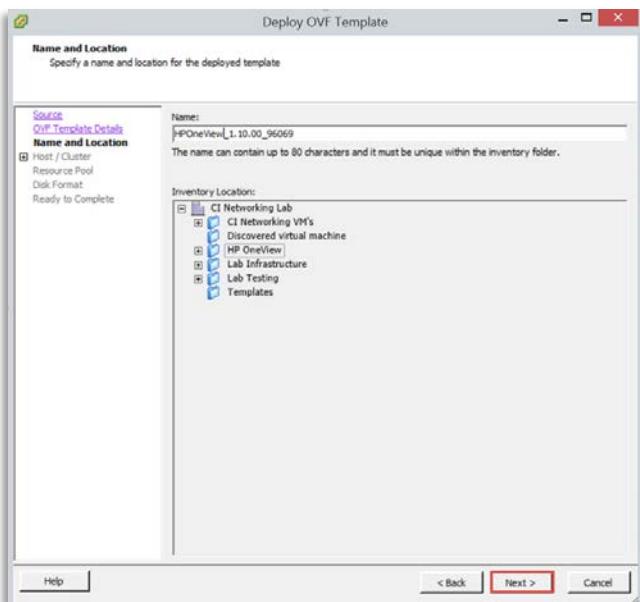
3. Verify the options selected and click **Next**.



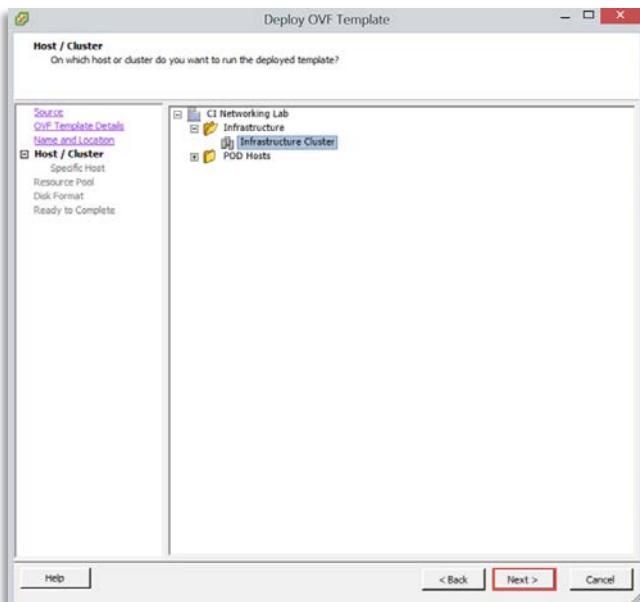
4. Name the appliance



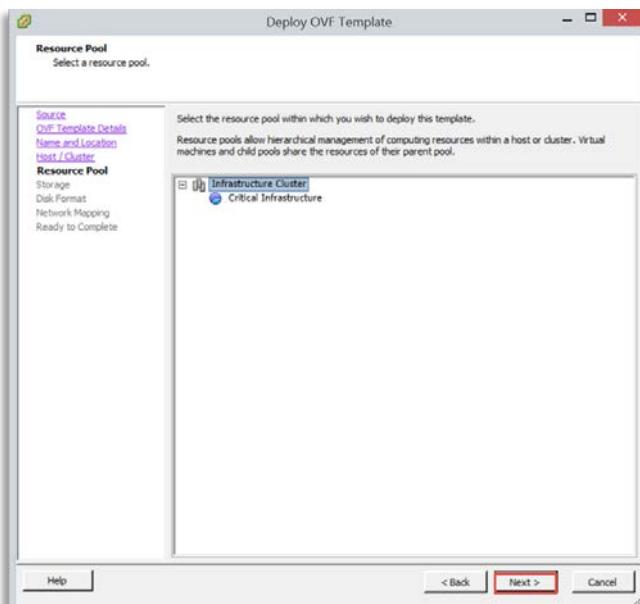
5. Click **Next**



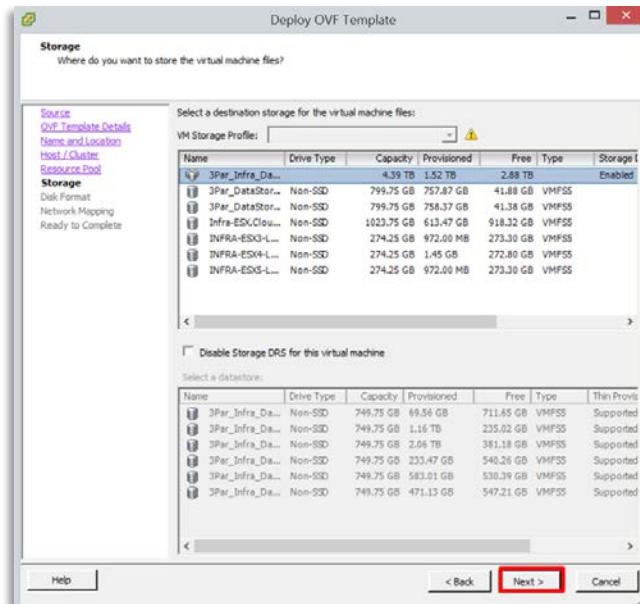
6. Select the host or cluster that will run the HPE OneView appliance and click **Next**



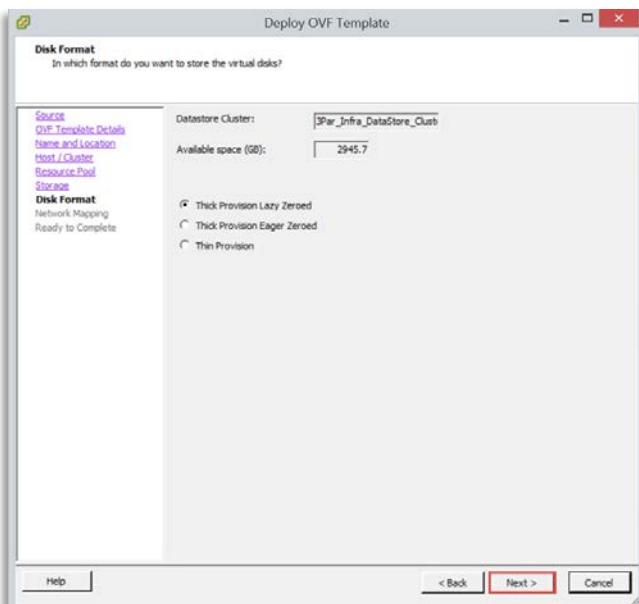
7. Select the resource pool that will host the HPE OneView appliance and click **Next**



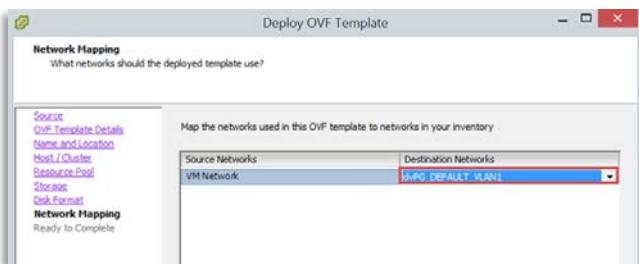
8. Select the storage location for the HPE OneView appliance and click **Next**



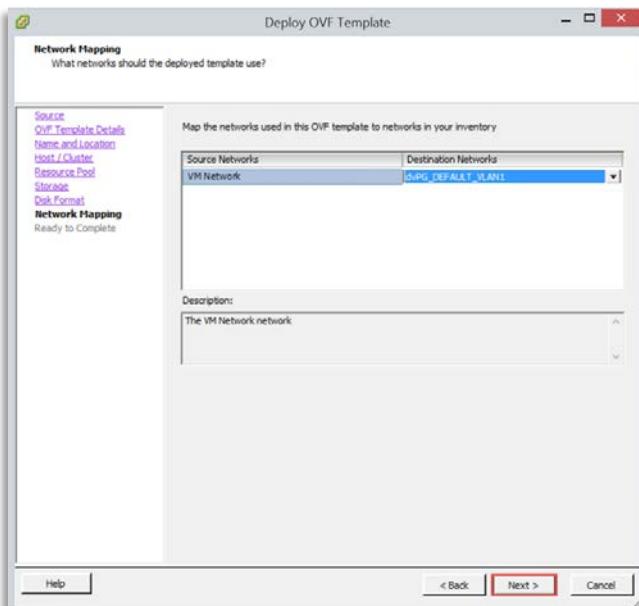
9. Select the disk format that will be used for HPE OneView appliance and click **Next**. HPE recommends that Thick Provision Lazy Zeroed be used for the HPE OneView appliance.



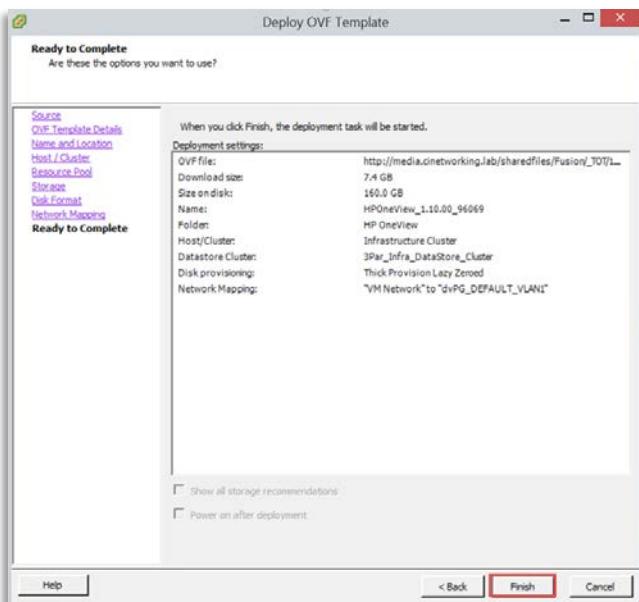
10. Select the network that will support the HPE OneView appliance



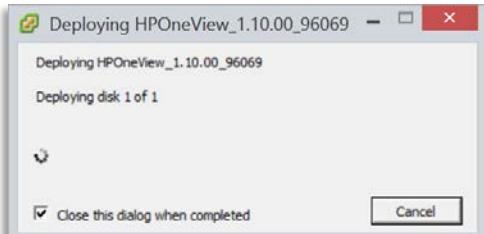
11. Click **Next**



12. Verify that the settings are correct and click **Finish**



13. The progress window will show you the status of the deployment process.



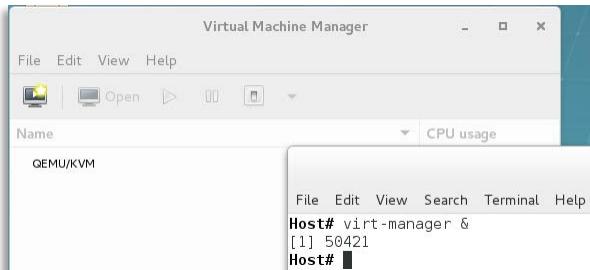
14. Proceed to the [First Time Setup](#) to begin to use your HPE OneView appliance

## KVM

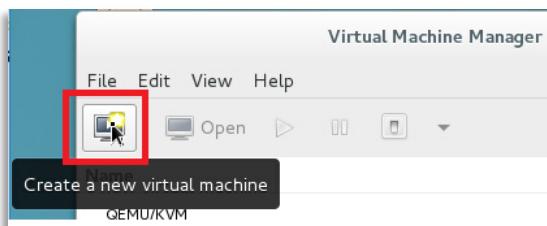
1. Extract the qcow2 image tar.gz file to a location accessible from the Linux host.

```
root@red1:/VMs
Host# cd /VMs
Host# ls
HPEOneView-qcow2.tar.gz  lost+found
Host# tar xvf HPEOneView-qcow2.tar.gz
HPEOneView-disk1.qcow2
Host#
```

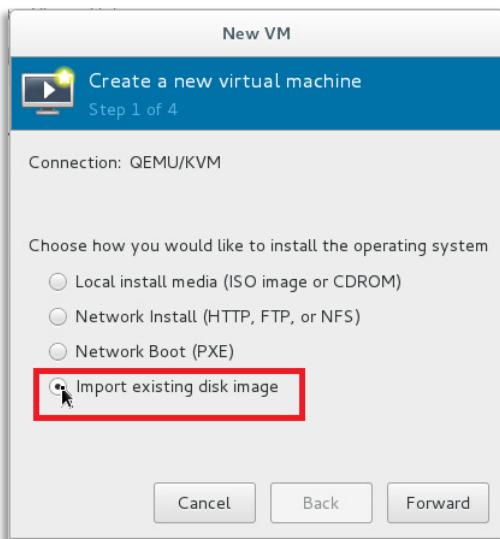
2. Open Virtual Machine Manager, or any other virtual machine management tool.



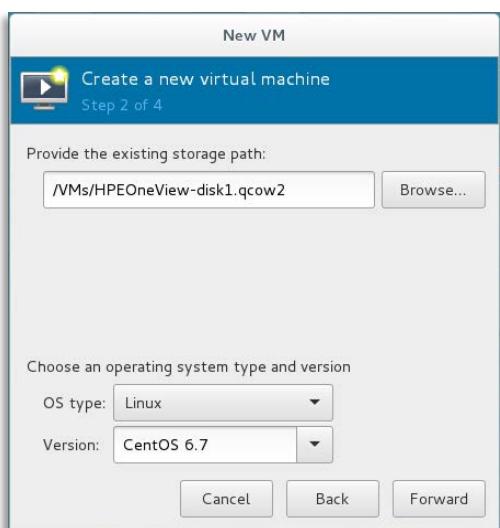
3. From the menu of Virtual Machine Manager, select File > New Virtual Machine to launch the New VM wizard.



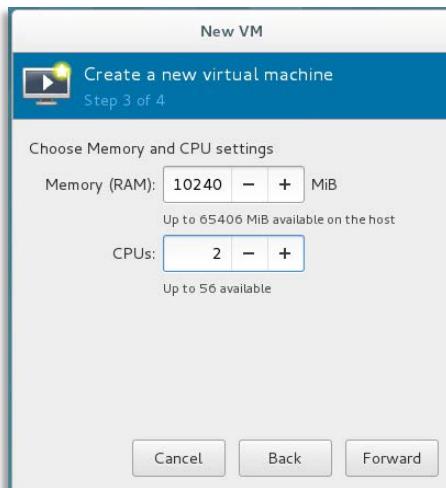
4. Select the Import existing disk image option for installing the operating system.



5. Browse to the location of the tar.gz file on your local machine. Select Linux for the OS type and CentOS 6.7 for the version. If CentOS 6.7 is not in the version list, select Generic for the OS type and the version.



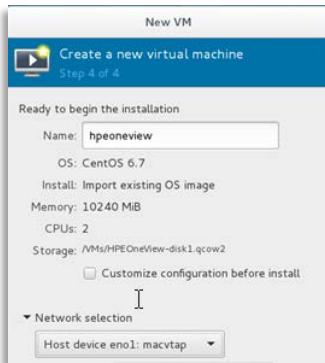
6. Set Memory (RAM) to 10240 MiB, and CPUs to 2.



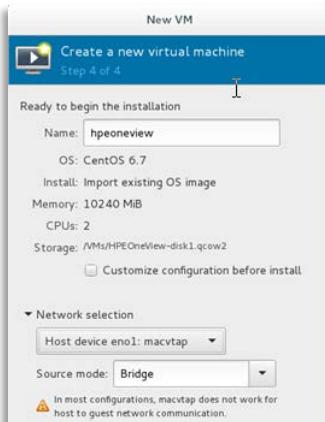
7. Specify the name of the VM.



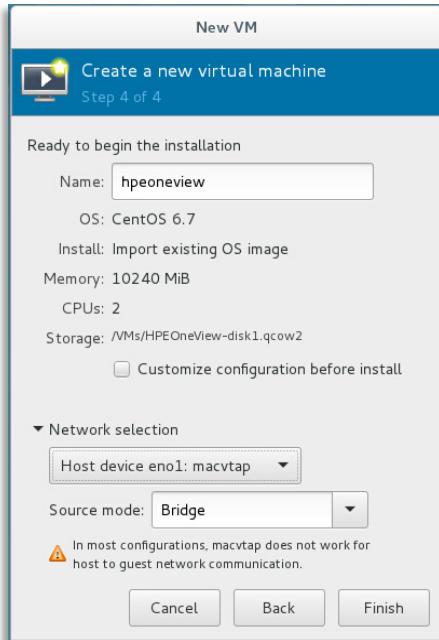
8. Expand the Network selection and select a network device that has connectivity to your management LAN.



9. Select Bridge as the Source mode.



10. Click Finish.



11. The appliance will now start from the virtual machine console

## Guided Setup

HPE OneView now has a guided setup feature. The guided setup gives step by step guidance for initial system setup along with product tour of key concepts and features. The guided setup can be easily accessed from the dashboard of the HPE OneView appliance.

By following the steps on the guided setup, you will be able to configure your appliance in an efficient manner without missing any steps. When steps are completed to your satisfaction, or if steps are not applicable in your environment, mark them complete. Only administrators with authorization to perform a step are allowed to mark/unmark steps.

Display on every login  
Click on a step to see details

Welcome to guided setup

Customize setup steps

Appliance settings 0 of 12 completed

- Configure appliance networking
- Configure NTP
- Configure appliance certificate
- Configure automated backup
- Add directory servers
- Add users and groups
- Configure proxy servers
- Configure remote support
- Add licenses
- Add repository
- Add firmware bundles
- Add management network IP pool

Resource configuration 0 of 16 completed

- Create networks
- Create network sets
- Create logical interconnect groups
- Create enclosure groups
- Add C7000 enclosures
- Add server hardware
- Add power delivery devices
- Add unmanaged devices
- Add racks
- Add data centers
- Manually configure unmanaged interconnects
- Create server profile templates
- Create server profiles
- Configure SNMP trap forwarding

**Guided Setup**

[>> hide list of steps](#)

**Welcome to guided setup**

By following the steps on this setup guide, you will be able to configure your appliance in an efficient manner without missing any steps.

When steps are completed to your satisfaction, or if steps are not applicable in your environment, mark them complete. Only administrators with authorization to perform a step are allowed to mark/unmark steps.

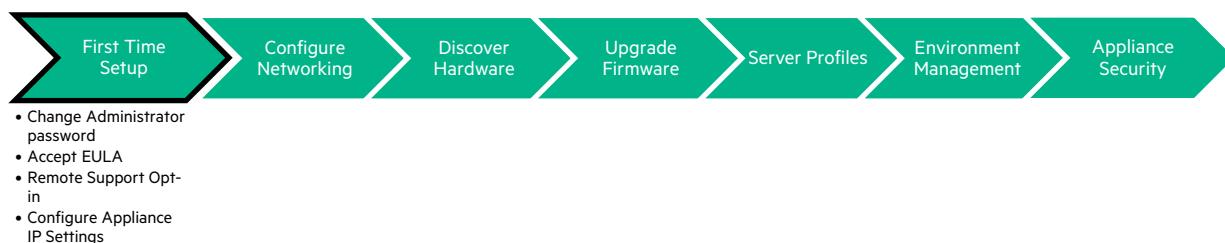
When you are ready to start, click a link below.

Complete

[First step](#)

[First incomplete step I'm allowed to complete](#)

## First Time Setup



Completing the HPE OneView appliance First Time Setup is designed to be simple and straightforward. By default, the management interface is configured for IPv4DHCP. If DHCP is not available on the management network you can access the Kiosk Browser within the VM console from the vSphere Client to complete the initial setup. If DHCP is available, you can configure the appliance with a browser remotely to complete the First Time Setup. The First Time Setup consists of Accepting a License Agreement, HPE Remote Support Access for remote troubleshooting, changing the default Administrator account password and configuring IP information.

## Installation Checklist

Prior to continuing with this document, please make sure you have completed the following:

**Table 7.** Installation Checklist

Task	Completed? (Y N)
<b>Have a supported KVM, Microsoft Hyper-V or vSphere 5<sup>3</sup> or newer ESXi host for appliance</b>	
<b>Have Static IP Address, or DHCP Static Reservation</b>	
<b>Have DNS A and PTR Records created</b>	
<b>Have NTP Server FQDN or IP Address information</b>	

1. Obtain the Virtual Machine IP Address from the VMware VIClient

2. Open a supported Web Browser to the noted IP Address to complete the First Time Setup. If DHCP is not available, then you can continue the following steps using the embedded Kiosk Browser, by launching the VMware VM Remote Console or the Microsoft Hyper-V Remote Console.

#### Note

If the hypervisor host is Window Server Hyper-V, then the First Time Setup must be completed using the appliance console via the Hyper-V Remote Console.

3. Read and accept the licence agreement.

Your use of the HPE OneView software is subject to the Hewlett Packard Enterprise End User License Agreement ("EULA") below, and any additional terms described in the Additional License Authorization ("ALA") for HPE OneView that can be found at <http://www.hpe.com/info/hpeoneview/eula>.

If you agree with the licensing terms, click Agree. Otherwise, click Disagree.

Hewlett Packard Enterprise End User License Agreement - Enterprise Version (v1.0 2017)

1. **Applicability.** This end user license agreement (the "Agreement") governs the use of accompanying software, unless it is subject to a separate agreement between you and Hewlett Packard Enterprise Company and its subsidiaries ("HPE"). By downloading, copying, or using the software you agree to this Agreement. HPE provides translations of this Agreement in certain languages other than English, which may be found at: [http://www.hpe.com/software/SWI\\_licensing](http://www.hpe.com/software/SWI_licensing).

2. **Terms.** This Agreement includes supporting material accompanying the software or referenced by HPE, which may be software license information, additional license authorizations, software specifications, published warranties, supplier terms, open source software licenses and similar content ("Supporting Material"). Additional license authorizations are at: [http://www.hpe.com/software/SWI\\_licensing](http://www.hpe.com/software/SWI_licensing).

3. **Authorization.** If you agree to this Agreement on behalf of another person or entity, you warrant you have authority to do so.

4. **Consumer Rights.** If you obtained software as a consumer, nothing in this Agreement affects your statutory rights.

5. **Electronic Delivery.** HPE may elect to deliver software and related software product or license information by electronic transmission or download.

6. **License Grant.** If you abide by this Agreement, HPE grants you a non-exclusive non-transferable license to use one copy of the version or release of the accompanying software for your internal purposes only, and is subject to any specific software licensing information that is in the software product or its Supporting Material.

Your use is subject to the following restrictions, unless specifically allowed in Supporting Material:

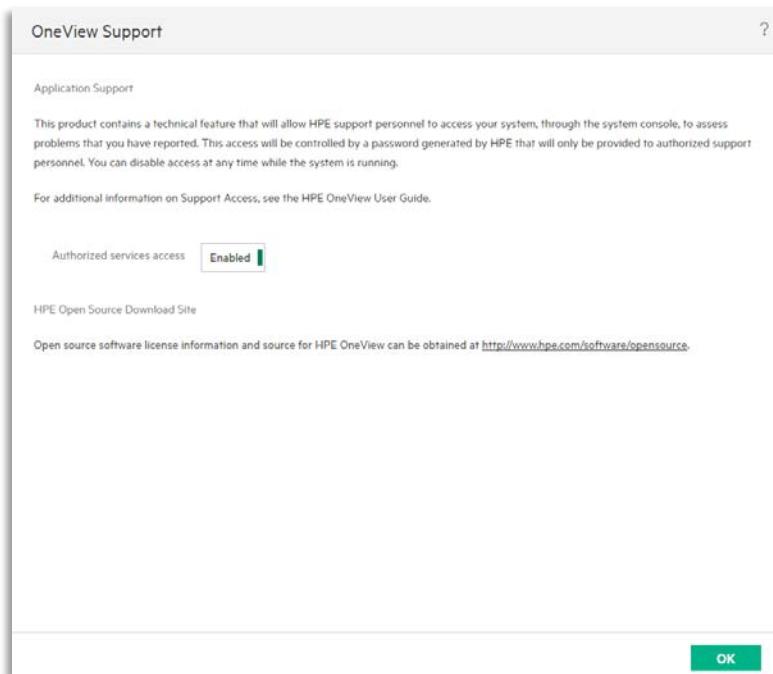
- You may not use software to provide services to third parties.

If you agree with the licensing terms, click Agree. Otherwise, click Disagree.

**Agree**      **Disagree**

<sup>3</sup> Please review the HPE OneView Support Matrix on <http://www.hpe.com/info/oneview/docs> for the officially supported hypervisors.

4. The HPE Support Access Opt-In is used for HPE Support Services remote access when the appliance is in an unhealthy state, and core services cannot start. By opting out, this also disables the ability to reset the appliance Administrator account password if ever lost.



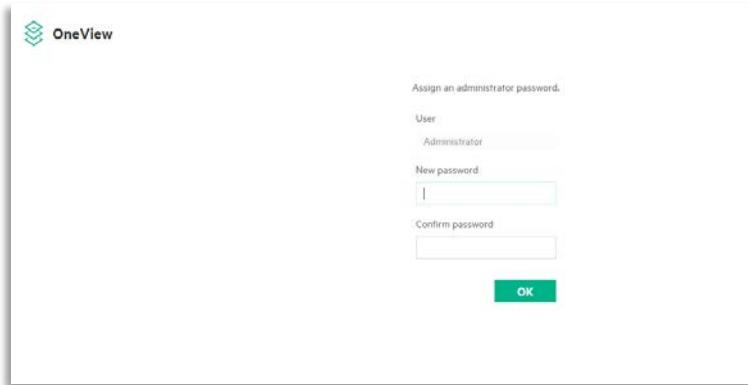
5. Login to the appliance using the default credentials

**Table 8.** Appliance Administrator Default Credentials

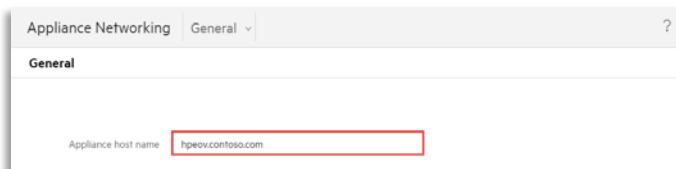
Username	Password
<b>Administrator</b>	admin



6. Change the default Administrator password.



7. In the General section of the Appliance Networking window, enter a **hostname for the appliance** (e.g. hpeoneview.example.com)
  - a. If you specify an FQDN, verify valid A and PTR records exist. The appliance will perform a nslookup of the FQDN and IP address and report an appliance warning if neither are available.



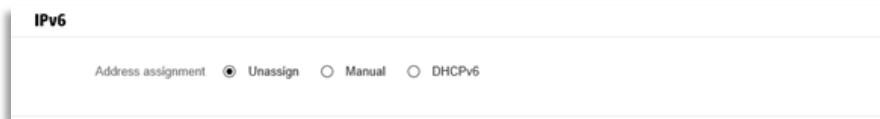
8. In the IPv4 section of the Appliance Networking window, enter **the IPv4 Address, Subnet Mask and Default Gateway for the appliance** (DHCP or Static can be used).
  - a. DHCP is only supported when Static Reservations are used.



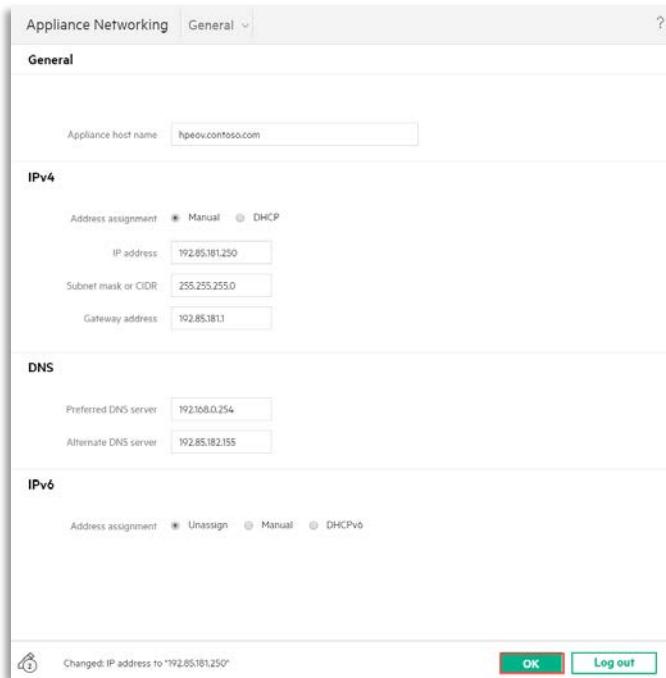
9. (Optional) In the DNS section of the Appliance Networking window, enter the **Preferred and Alternate DNS server addresses** for the appliance



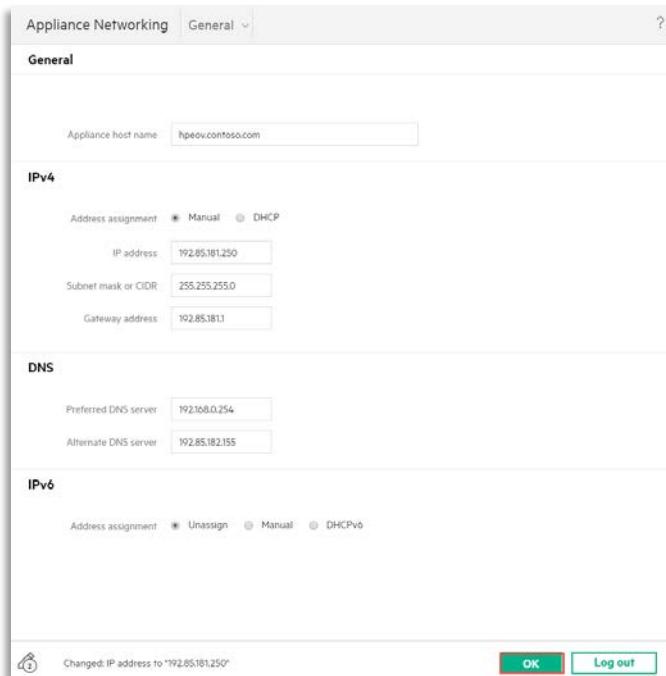
10. (Optional) In the IPv6 section of the Appliance Networking window, configure the **IPv6 address** for the appliance



11. Click **OK** to apply the configuration.



- After clicking OK, the appliance will configure those parameters. If you selected Static for the IP Address Assignment, you should be redirected to the new IP address. Please accept the certificate security warnings during the redirection, as a new SSL certificate is generated from the FQDN.



## HPE Synergy Composer First Time Setup

- Connect to the Composer

Option 1: Connect to the Front Panel by connecting a monitor to the display port and the USB hub with a keyboard and mouse to the USB port.



Option 2: Connect to the Front Panel with a laptop.

- Configure the notebook computer Ethernet adapter for DHCP and enable auto-negotiation.
- Use a standard CAT5 or new cable to connect the notebook computer Ethernet port to the notebook port on a front panel module. (A crossover cable is not required).
- Wait for the notebook computer to obtain a DHCP address. The address the Frame issues should be 192.168.10.2
- On the notebook computer, launch a VNC client application to connect to the Synergy console. If prompted by the VNC client, enter the Synergy frame IP address (including port 5900) to use for the connection: 192.168.10.1:5900

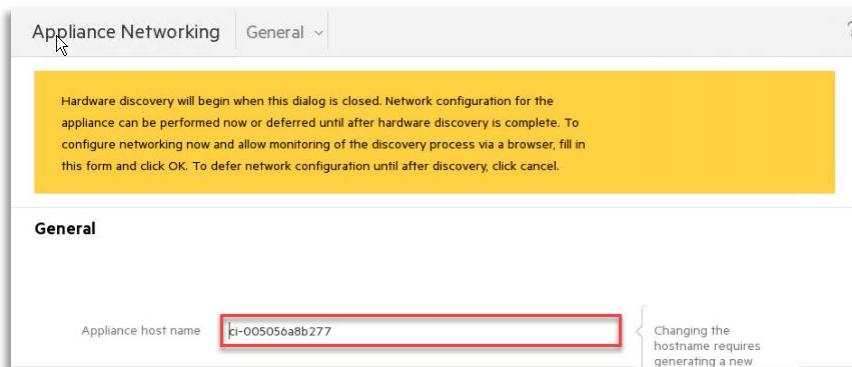
2. From the Synergy Frame Link Module screen, click the **Connect** button to launch HPE OneView



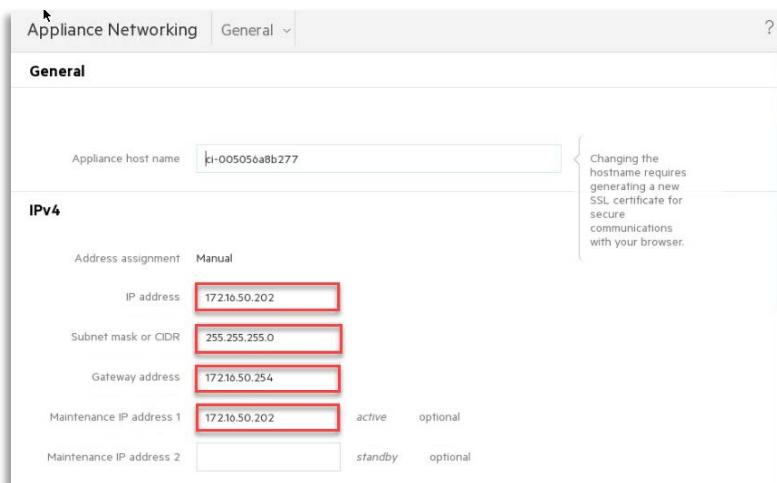
3. To connect with install technician user privileges, click **Hardware Setup**. This initiates the self-discovery of devices on the management ring using IPv6 link-local.



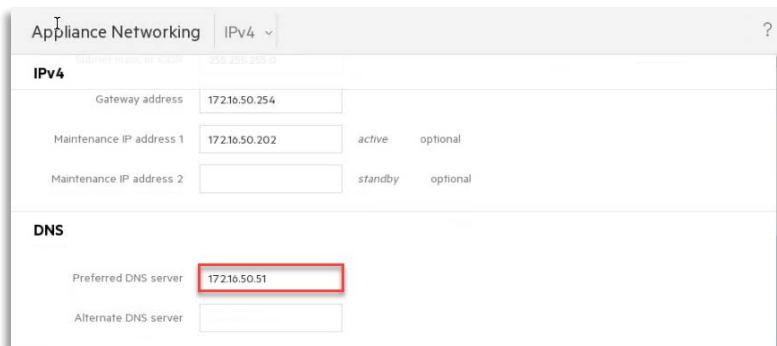
4. Enter the **hostname** for the composer



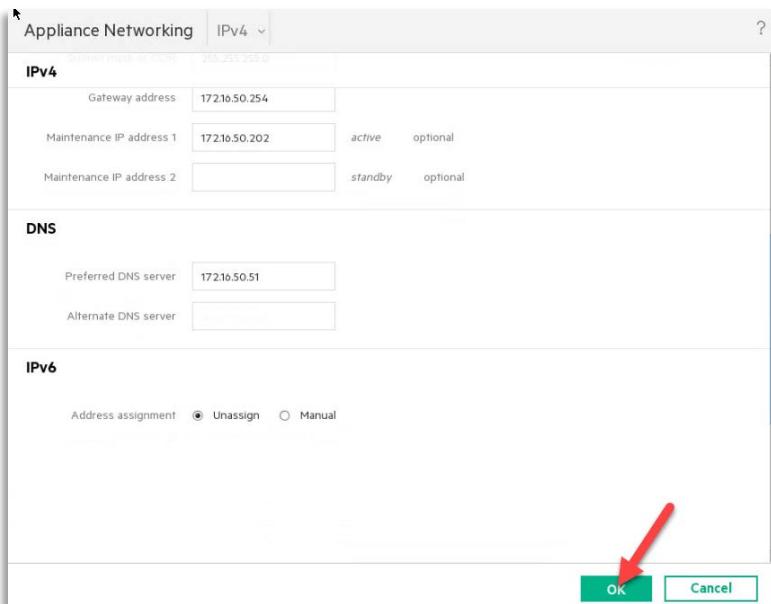
**5. Enter the **IPv4** information for the composer**



**6. Enter the **DNS** information for the composer**

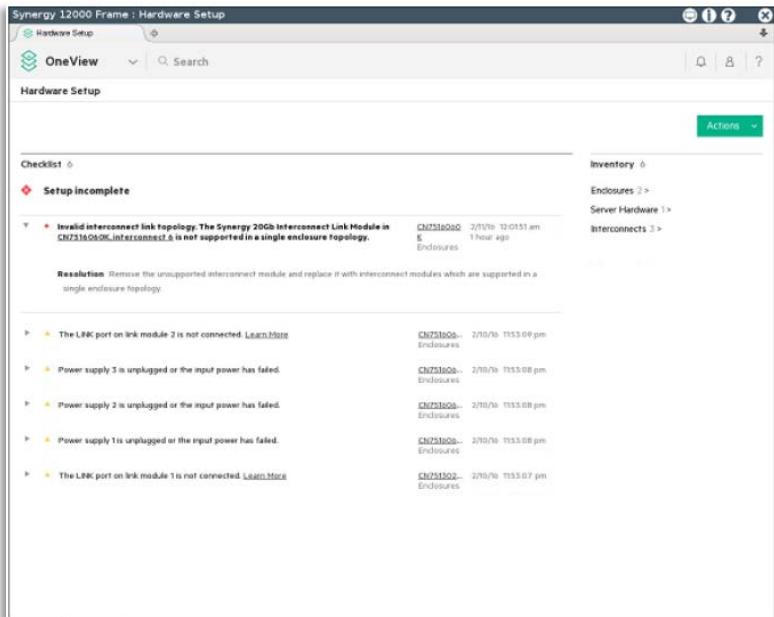


**7. Click **OK** to begin hardware discovery**



8. The composer will automatically discover all of the hardware within the Management Ring.

9. Review the hardware inventory after HPE OneView completes the add operation.
10. Confirm that the inventory includes all installed components.
11. For any hardware not discovered by HPE OneView, look for problems with frame link module cabling, hardware not fully inserted, or other hardware issues.
12. Review and correct any issues listed in the Hardware Setup Checklist. To troubleshoot all issues, follow the corrective actions in HPE OneView.



## Set Time and Language (Optional)

- From the Top-Level menu, click **Settings**

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES	Settings
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers	
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	Users and Groups
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices	
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices	
	Enclosures		Interconnects	SANs		
	Rack Managers		Logical Switch Groups	SAN Managers		
	Server Hardware		Logical Switches			
	Server Hardware Types		Switches			

- Click the **Time and Language** section of the settings window

**Appliance >**

- Firmware: 300.00-0244777
- Last downloaded backup created at: none
- Current backup created at: none

**Networking >**

- Host name: hpeovcontoso.com
- Appliance IP address: 192.85.38.250
- Gateway address: 192.85.38.1
- Primary DNS: 192.168.0.254

**Time and Locale >**

- Time: 4/20/16 11:28:17 am (UTC -0500)
- Locale: English (United States)

**Security >**

- Directories: Local default
- Alert result filters: Disabled
- Filters: none

**Activity >**

- Active alerts: 1

**SNMP >**

- Read community string: #GRP
- Trap destinations: none

**Networking >**

- Available IPv4 Addresses: not set
- MAC Addresses: 1048576
- World Wide Names: 1048576
- Serial Numbers: 46656

3. On the Actions Menu, select **Edit**

**Time and Locale**

- Current date/time: Apr 20/16 11:29:31 am (UTC -0500)
- Network time server: not configured
- Locale: English (United States)

**Actions** Edit

4. Configure the NTP, Date and Locale information for the appliance

**Edit Time and Locale**

Synchronize with VM host  Synchronize with time server

Network time server 1:  Recommended

Network time server 2:  Recommended

Network time server 3:  Recommended

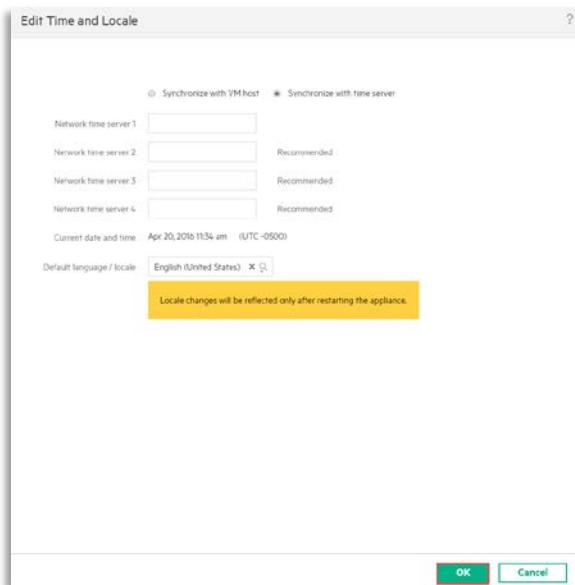
Network time server 4:  Recommended

Current date and time: Apr 20, 2016 11:32 am (UTC -0500)

Default language / locale: English (United States)

Actions Edit

5. Click **OK** to apply the changes.

**Note**

The locale changes will require a restart of the HPE OneView appliance.

## HPE OneView Appliance based Firmware Repository

The HPE OneView virtual appliance does not ship with a default SPP. It is necessary to upload an SPP into the appliance, unless a custom baseline (created by HPSUM6 or newer) is required.

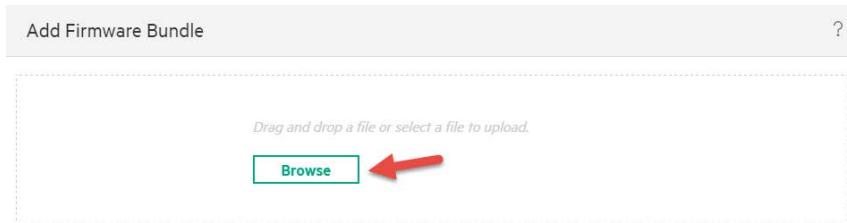
- From the Top-Level Menu, select **Firmware Bundles**

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures		Groups	Storage Systems	Users and Groups
	Enclosures		Logical Interconnects	SANs	Devices
	Rack Managers		Interconnects	SAN Managers	Unmanaged Devices
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

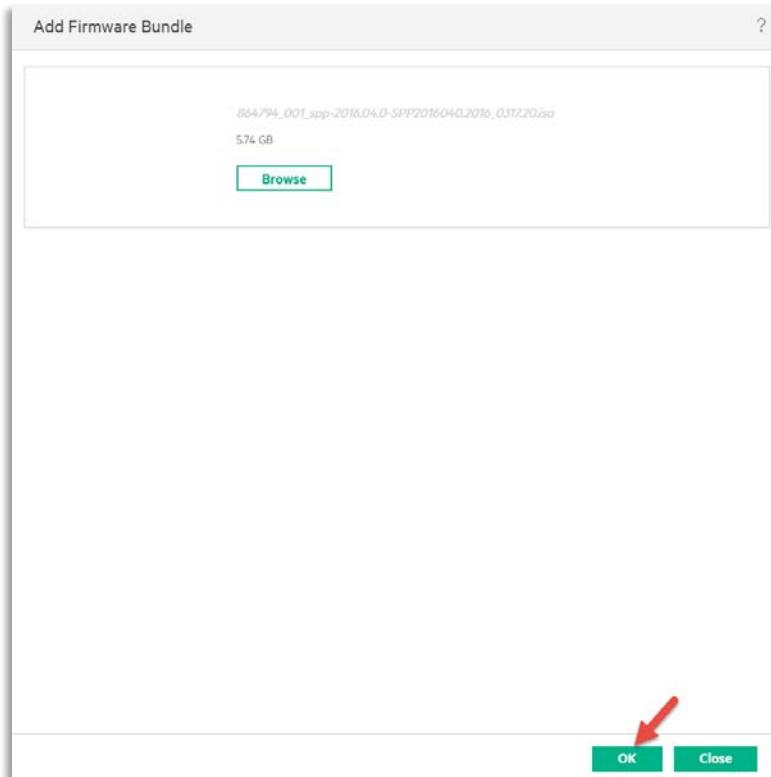
- To upload an SPP Bundle, click the **+Add Firmware Bundle** button

Name	Version	Size	Type
No firmware bundles			

- On the Add Firmware Bundle window, click on the **Browse** button, and select the SPP ISO to upload.



- Once selected, click the **Start Upload** button. You can also drag-and drop firmware bundles (SPPs) within Windows environments. You can navigate away from the Firmware Bundle screen to other areas within the UI, as the upload process is a background process within the browser.



- The SPP upload will begin. You can click the **Close** button in the lower right, as that will only close the dialog box and not cancel the upload.

---

**Note**

Do not close the browser window until the Firmware Upload task has completed.

---

## External based Firmware Repository

HPE OneView 3.1 or newer supports external firmware repositories.

- From the Top-Level Menu, select **Settings**

The screenshot shows the HPE OneView main dashboard. At the top, there's a navigation bar with icons for Home, Servers, Hypervisors, Networking, Storage, Facilities, and Settings. Below the navigation bar is a grid of links categorized under General, Servers, Hypervisors, Networking, Storage, and Facilities. The 'Settings' link is located in the Facilities row. A red arrow points to the 'Settings' link.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Scroll to the bottom of the settings page and click **Repository**

The screenshot shows the 'Settings' page in HPE OneView. The page is divided into several sections: Appliance, Networking, Time and Locale, Licenses, Security, Notifications, Scopes, Activity, SNMP, Addresses and Identifiers, Remote Support, Storage, and Repository. A red arrow points to the 'Repository' link in the bottom right section.

3. On the left-hand side of the page, click on the **+Add Repository** button

The screenshot shows the 'Add Repository' menu. It has a header with 'Settings' and 'Repository 1'. Below the header is a green button labeled '+ Add Repository' with a red arrow pointing to it. The main area contains a table with columns for Name (Internal) and Space Available (100.00 GB). To the right of the table is a detailed view for an 'Internal' repository, showing tabs for Internal, General, and Actions. The 'General' tab is selected, displaying information like Size (100.00 GB), Available (100.00 GB), Firmware bundles (No data available in table), File Name, and Size.

4. In the Add Repository menu, enter a name for the Repository.

**Add Repository**

**General**

Name

5. In the Add Repository menu, enter a webserver address for the Repository.

**Add Repository**

**General**

Name

Webserver address

Specify certificate

Both http and https are supported. [learn more](#)

6. In the Add Repository menu, enter the credentials to access the Repository.

**Add Repository**

**General**

Name

Webserver address

Specify certificate

.....

**Credentials**

Requires authentication

Username

Password

7. Click the **Add** button to finalize the repository.

**Add Repository**

**General**

Name: SPP Repo

Webserver address: http://172.23.1.30/deployment/spp/

Specify certificate

**Credentials**

Requires authentication

Username: user

Password: [REDACTED]

Changed: Username to "user"

**Add** **Cancel**

## Adding HPE OneView Advanced Licenses to the HPE OneView Appliance

HPE OneView licensing is designed to be simplified, with the Advanced license typically embedded within the iLO or Onboard Administrator when ordered with Factory Express, CTO or BTO. Please refer to the HPE OneView Quickspecs for all possible licensing options.

HPE OneView also has a built-in 60-day Advanced evaluation license. During this HPE OneView Advanced license evaluation period, HPE OneView will not enable iLO Advanced features or functionality. The iLO Advanced license (trial or retail) is also required for server and enclosure power and performance monitoring.

If you have received a license key, use the appliance Settings menu to add licenses to the internal pool. The following steps outline that process.

- From the Top-Level Menu, select **Settings**

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures		Groups	Storage Systems	Devices
	Enclosures		Logical Interconnects	SANs	Unmanaged Devices
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

**Settings**

Users and Groups

Power Delivery Devices

Unmanaged Devices

- From the main settings menu, select **Licenses**

The screenshot shows the 'Settings' page in the HPE OneView interface. The 'Licenses' section is highlighted with a red arrow. It displays the message 'Licenses none' and a 'Add' button.

**3. Select **Add License**.**

The screenshot shows the 'Licenses' page in the HPE OneView interface. The 'Add' button is highlighted with a red arrow.

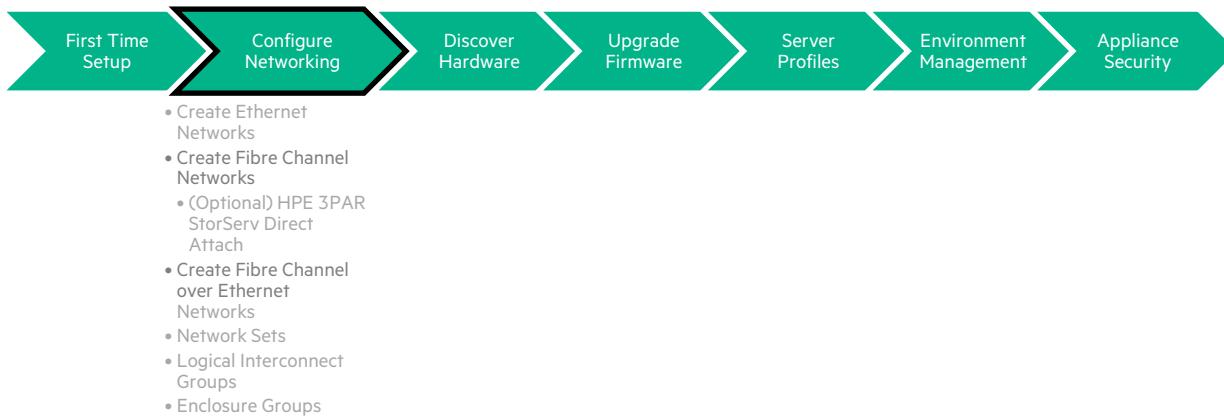
**4. In the Add License dialog box, paste in your license key in the dialog box and click **Add** to apply the license.**

The screenshot shows the 'Add License' dialog box. The 'Add' button is highlighted with a red arrow.

**5. On the Licenses page, verify that your license count has increased.**

The screenshot shows the 'Licenses' page in the HPE OneView interface after adding a license. The status bar at the bottom indicates 'Add License Completed'. The 'Licenses' section shows '0 servers licensed' and '10 licenses available'.

## Network Configuration



In this section, you will create *Networks*, *Network Sets*, *Logical Interconnect Groups* and *Enclosure Groups*.

*Networks* are constructs within the appliance that define a particular L2 network or FCoE/FC Fabric. A *Network* will be an object you can assign to *Server Profiles*, *Network Sets*, and *Logical Uplink Sets*. HPE OneView supports Virtual Connect Active/Active networking, so each Ethernet Network does not require unique VLAN IDs. Similar to Virtual Connect provisioning all *Ethernet Networks* to all Ethernet modules within a Virtual Connect Domain, HPE OneView provisions all defined *Ethernet Networks* to all managed Ethernet-capable modules.

*Network Sets* are aggregated networking objects that contain *Networks*. The *Network Set* will be an object you can assign to *Network Connections* within *Server Profiles* to greatly simplify multiple network management. For instance, if you have a number of standard *Networks* required for Virtual Machine connectivity, which is different for physical servers, you can create different *Network Sets* for each host connectivity model. *Network Sets* replace the *Multiple Networks* Virtual Connect concept and becomes the only way to trunk multiple networks to a *Network Connection*.

*Logical Interconnect Groups* are similar to Virtual Connect Enterprise Manager Domain Groups, which define what modules are located within the enclosure and the module configurations like IGMP Snooping, Loop Protection, Multicast Filtering, etc. *Uplink Sets* define uplink connectivity for Ethernet, FCoE and FC *Networks*, and are members of a *Logical Interconnect Groups*. The *Logical Interconnect Group* is then assigned to an *Enclosure Groups* to complete the Enclosure configuration policy. A *Logical Interconnect* is patterned after the *Logical Interconnect Groups* and is defined automatically once an *Enclosure* is added to the HPE OneView console by associating it to an *Enclosure Group*.

*Uplink Sets* are synonymous with the *Shared Uplink Set* within Virtual Connect, in that it defines the uplink connectivity for selected networks. An *Uplink Set* can either be an Ethernet or Fibre Channel type, but not both. Any defined *Networks* not associated with an *Uplink Set* become *Internal Ethernet Networks* to the *Logical Interconnect* and are reported within the *Logical Interconnect*.

An *HPE OneView Domain* is a new concept to the Composable Infrastructure management framework. While you cannot create additional *HPE OneView Domains*, the appliance itself is a single Domain construct. An *HPE OneView Domain* consists of one or more *Logical Interconnect Groups*, *Uplink Sets*, *Networks* and help to define how *Server Profiles* consume these resources. When defining a *Network*, it will be available within the *HPE OneView Domain* for consumption by either a *Logical Interconnect Groups*, *Logical Uplink Set*, *Logical Interconnect* (for one-off configuration requirements) or *Server Profiles* (for Internal Only networks.)

## Network Configuration Checklist

Prior to continuing with this document, please make sure you have completed the following:

**Table 9.** HPE OneView Network Configuration Checklist

Task	Completed? (Y N)
<b>Collect the Virtual Connect Module Types</b>	
<b>Note the uplink ports connected to the upstream switches</b>	
<b>Document necessary VLAN IDs and names</b>	
<b>Document necessary Fibre Channel Fabrics</b>	

## Creating Ethernet Networks



- **Create Ethernet Networks**
- Create Fibre Channel Networks
  - (Optional) HPE 3PAR StorServ Direct Attach
- Create Fibre Channel over Ethernet Networks
- Network Sets
- Logical Interconnect Groups
- Enclosure Groups

1. From the Top-Level menu, select **Networks**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	<b>Networks</b>	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

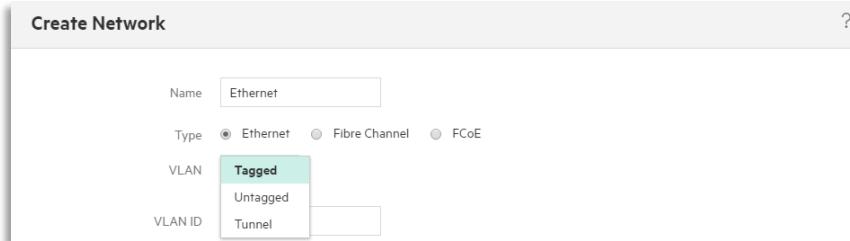
2. Once on the **Networks** screen, click the **+Create Network** button on the far left.

3. In the Create Network Dialog box enter the name of the network. The **Name** is not case-sensitive. The name can contain spaces and special characters.

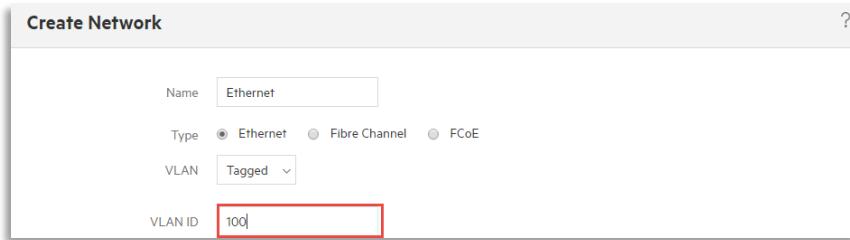
4. Select **Ethernet** as the **Type**



**5. Select the **VLAN type** from the dropdown box**



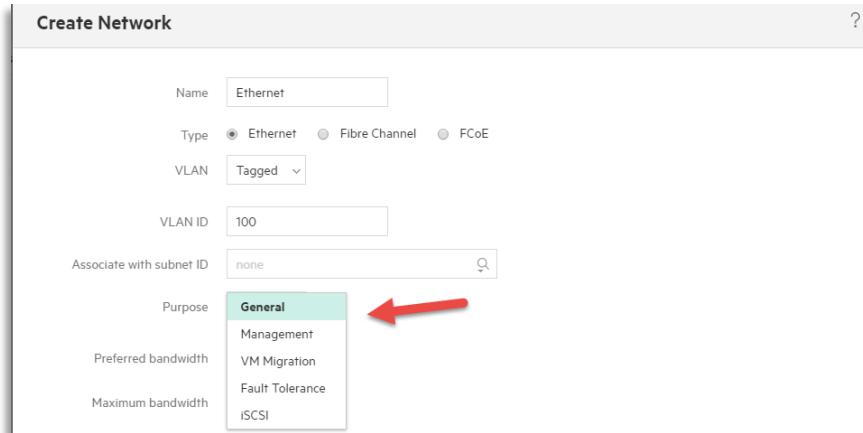
**6. Enter the **VLAN ID**.**



**Note**

The VLAN ID field can accept ranges of VLANs (i.e. 10,15,20-50) and will append “\_VLANID” to the end of the network name.

**7. Select the Purpose of the network from the dropdown list. The **Purpose drop-down** selection is used by the HPE OneView for vCenter integration<sup>4</sup>. The **iSCSI** purpose is used to filter for networks to assign to HPE StoreVirtual VIP addresses.**



**8. Assign the **Preferred** and **Maximum bandwidth** settings.**

<sup>4</sup> [HPE OneView for vCenter](#)

**Create Network**

Name	Ethernet
Type	<input checked="" type="radio"/> Ethernet <input type="radio"/> Fibre Channel <input type="radio"/> FCoE
VLAN	Tagged <input type="button" value="▼"/>
VLAN ID	100
Associate with subnet ID	none <input type="button" value="🔍"/>
Purpose	General <input type="button" value="▼"/>
Preferred bandwidth	2.5 Gb/s
Maximum bandwidth	20 Gb/s

9. Enable any network options needed. *Smart Link* will automatically be selected by default. Selecting *Private Network* will mimic PVLAN behavior in that all assigned Network Connections will all be in an isolated network.

**Create Network**

Name	Ethernet
Type	<input checked="" type="radio"/> Ethernet <input type="radio"/> Fibre Channel <input type="radio"/> FCoE
VLAN	Tagged <input type="button" value="▼"/>
VLAN ID	100
Associate with subnet ID	none <input type="button" value="🔍"/>
Purpose	General <input type="button" value="▼"/>
Preferred bandwidth	2.5 Gb/s
Maximum bandwidth	20 Gb/s
<input checked="" type="checkbox"/> Smart link 	
<input type="checkbox"/> Private network	

10. Click the **Create** button to create the new Ethernet Network and close the Create Network dialog box. You can also select the **Create+** button to continue creating more Networks – e.g. Create the B-Side Ethernet Network.

**Create Network**

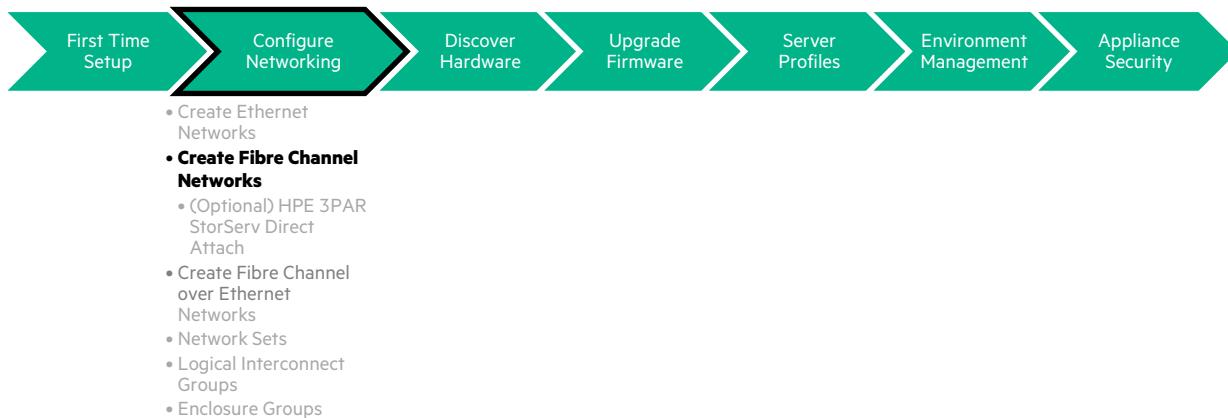
Name	Ethernet
Type	<input checked="" type="radio"/> Ethernet <input type="radio"/> Fibre Channel <input type="radio"/> FCoE
VLAN	Tagged <input type="button" value="▼"/>
VLAN ID	100
Associate with subnet ID	none <input type="button" value="🔍"/>
Purpose	General <input type="button" value="▼"/>
Preferred bandwidth	2.5 Gb/s
Maximum bandwidth	20 Gb/s
<input checked="" type="checkbox"/> Smart link 	
<input type="checkbox"/> Private network	

Changed: VLAN ID to "100"

## Creating Fibre Channel Networks

HPE OneView supports multi-hop FCoE Fabrics with either traditional Fibre Channel Fabric Attach, or Virtual Connect Flat SAN with HPE 3PAR StoreServ Direct Attach. Please choose the appropriate following scenario to create either a Fabric Attach or 3PAR Direct Attach Fabric.

### Fabric Attached Network



1. From the Top-Level Menu, select **Networks**, then select the **+Create Network** button.

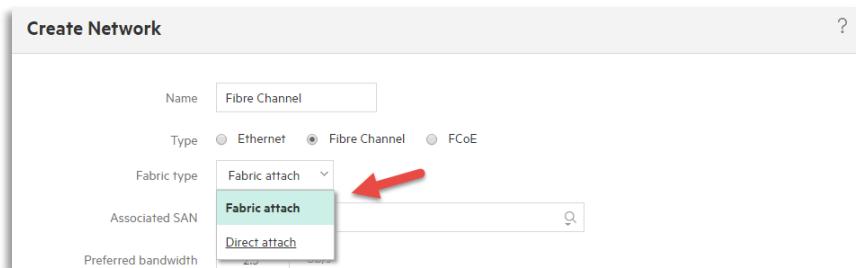
2. In the Create Network dialog box, enter the **Name** of the Fibre Channel network

Create Network	
Name	<input type="text" value="Fibre Channel"/>

3. Select **Fibre Channel** as the **Network Type**

Create Network	
Name	<input type="text" value="Fibre Channel"/>
Type	<input type="radio"/> Ethernet <input checked="" type="radio"/> Fibre Channel <input type="radio"/> FCoE

4. Select **Fabric Attach** as the **Fabric Type**



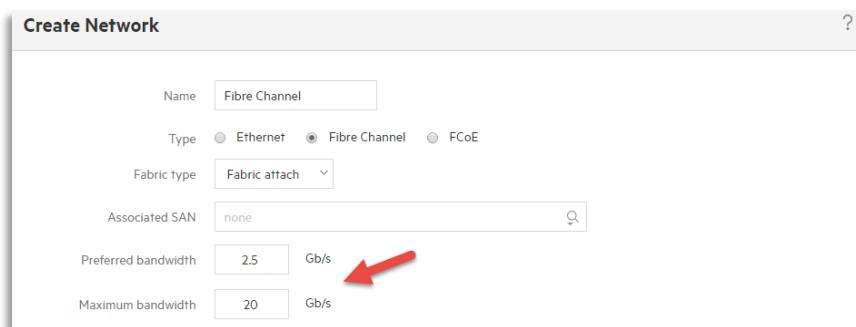
#### Note

The *Fabric Attach Fabric Type* is used for traditional Fibre Channel Fabric connectivity, which requires NPIV-capable upstream FC switches.

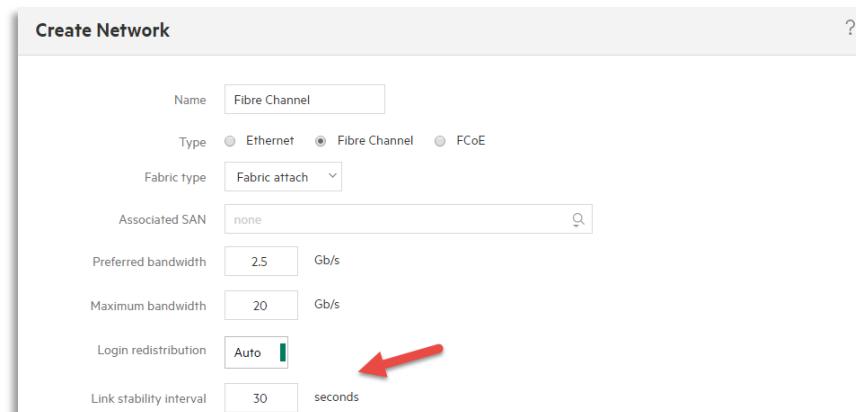
#### Note

By selecting the *Fabric Attach Fabric Type*, you can assign any of the available X1-X4 ports on a Virtual Connect FlexFabric 10/24 module or ports X1-X8 for FlexFabric 20/40 F8 module to an FC switch, when creating the *Uplink Set* in the *Logical Interconnect Group*.

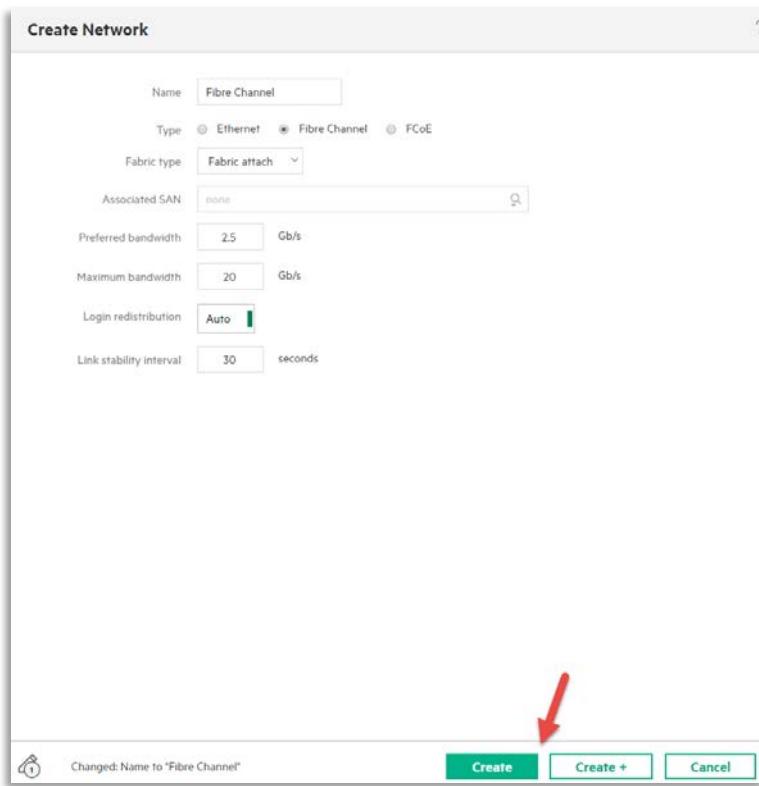
#### 5. Set the **Preferred and Maximum Bandwidth**.



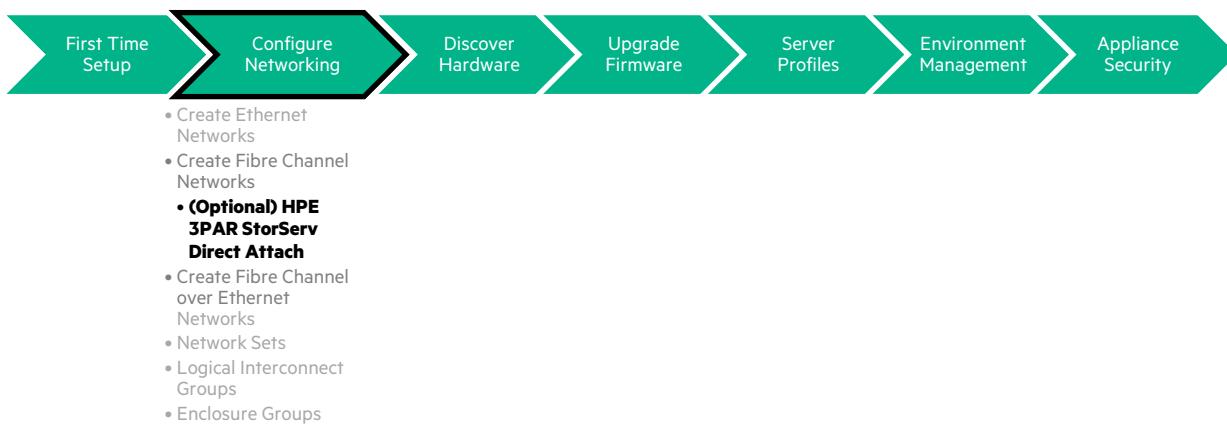
#### 6. Set the desired **Login Redistribution** and **Link Stability** interval to be used.



- Click the **Create** button to create the new Ethernet Network and close the Create Network dialog box. You can also select the **Create+** button to continue creating more Networks.



### HPE 3PAR StoreServ Direct Attach (Optional)



The HPE 3PAR StoreServ Flat SAN feature extends Virtual Connects “Wire-Once” management to the FC fabric by reducing the complexity, and cost of expensive FC switches. This feature is only supported with HPE 3PAR StoreServ arrays, and not with other HPE or 3<sup>rd</sup> party storage arrays.

1. From the Top-Level Menu, select **Networks**, then select the **+Create Network** button.

The screenshot shows the HPE OneView interface with the 'NETWORKING' tab highlighted in red. The menu items under 'NETWORKING' are Networks, Network Sets, Logical Interconnect, Logical Interconnects, Interconnects, Logical Switch Groups, Logical Switches, and Switches.

2. In the Create Network dialog box, enter the **Name** of the Fibre Channel network

The 'Create Network' dialog box shows the 'Name' field set to 'Direct Attached'. A red arrow points to the 'Name' field.

3. Select **Fibre Channel** as the Network Type.

The 'Create Network' dialog box shows the 'Type' section with 'Fibre Channel' selected. A red arrow points to the 'Fibre Channel' radio button.

4. Select **Direct Attach** as the Fabric Type

The 'Create Network' dialog box shows the 'Fabric type' dropdown expanded to show 'Fabric attach' and 'Direct attach'. 'Fabric attach' is highlighted with a red arrow.

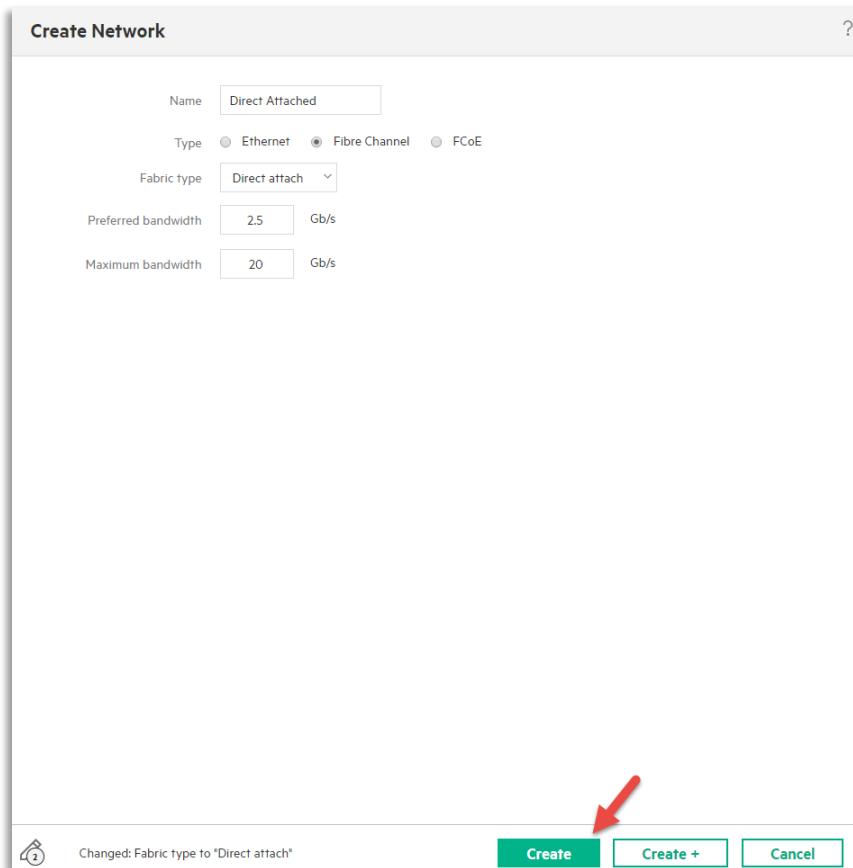
#### Note

By selecting the *Direct Attach Fabric Type*, you can assign any of the available Fibre Channel capable ports on a Virtual Connect FlexFabric module to an HPE 3PAR StoreServ array.

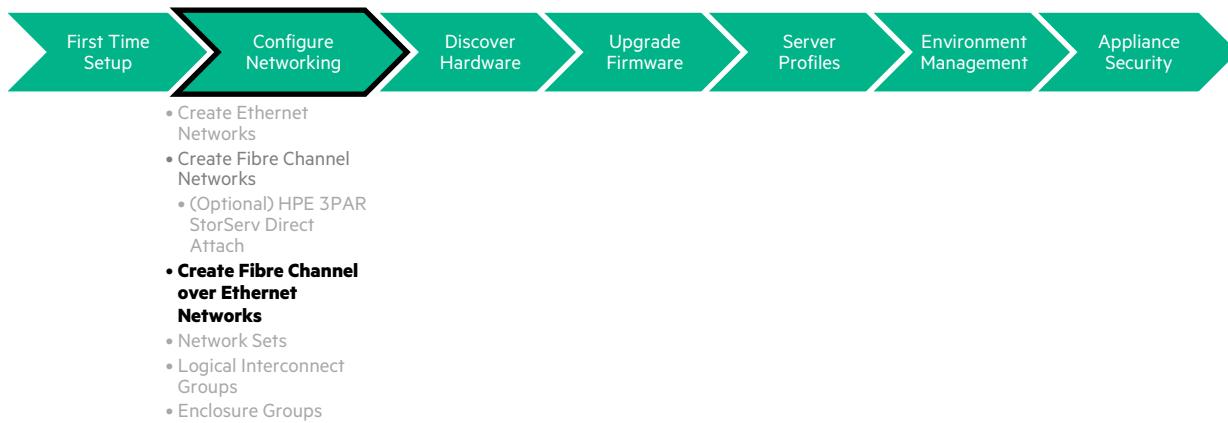
5. Set the **Preferred** and **Maximum Bandwidth**.

The 'Create Network' dialog box shows the 'Preferred bandwidth' and 'Maximum bandwidth' fields both set to '2.5 Gb/s'. A red arrow points to the 'Gb/s' unit indicator.

6. Click the **Create** button to create the new Direct Attach Network and close the Create Network dialog box. You can also select the **Create+** button to continue creating more Networks.



### Fibre Channel over Ethernet Network



- From the Top-Level Menu, select **Networks**, then select the **+Create Network** button.

The screenshot shows the HPE OneView navigation bar with several tabs: GENERAL, SERVERS, HYPERVISORS, NETWORKING (which is highlighted with a red arrow), STORAGE, and FACILITIES. Under the NETWORKING tab, there are sub-options: Networks, Network Sets, Logical Interconnect, Logical Interconnects, Logical Switch, SANs, and SAN Managers.

2. In the Create Network dialog box, enter the **Name** of the Fibre Channel over Ethernet network

The dialog box has a header 'Create Network'. In the 'Name' field, the text 'FCoE' is entered. A red arrow points to this input field.

3. Select **FCoE** as the Network Type.

The dialog box has a header 'Create Network'. In the 'Type' section, the radio button for 'FCoE' is selected. A red arrow points to this radio button.

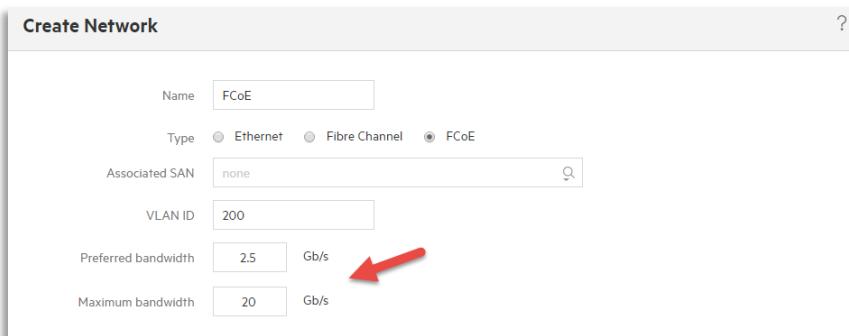
4. Enter the **SAN** that the FCoE network will be associated with

The dialog box has a header 'Create Network'. In the 'Associated SAN' field, the text 'none' is entered. To the right of the input field is a magnifying glass icon. A red arrow points to this icon.

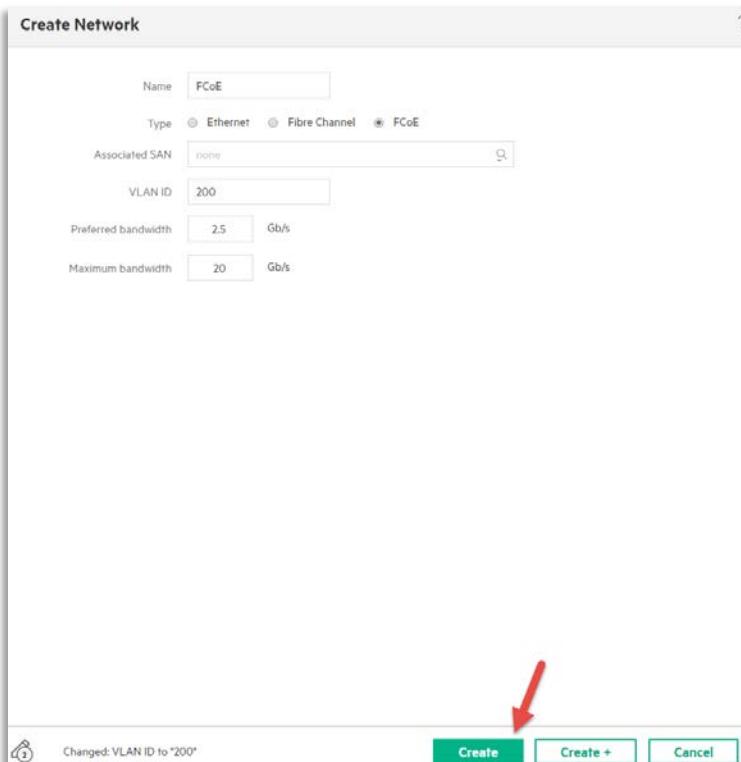
5. Enter a **VLAN ID**

The dialog box has a header 'Create Network'. In the 'VLAN ID' field, the number '200' is entered. A red arrow points to this input field.

6. Set the **Preferred** and **Maximum Bandwidth**.



- Click the **Create** button to create the new Ethernet Network and close the Create Network dialog box. You can also select the **Create+** button to continue creating more Networks.



## Creating Network Sets



First Time Setup

Configure Networking

Discover Hardware

Upgrade Firmware

Server Profiles

Environment Management

Appliance Security

- Create Ethernet Networks
- Create Fibre Channel Networks
- (Optional) HPE 3PAR StorServ Direct Attach
- Create Fibre Channel over Ethernet Networks
- Network Sets**
- Logical Interconnect Groups
- Enclosure Groups

1. From the Top-Level Menu, select **Network Sets**.

The screenshot shows the HPE OneView navigation bar with several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under the NETWORKING category, the 'Network Sets' link is highlighted with a red arrow. Other options in this category include Networks, Logical Interconnect, Logical Interconnects, Interconnects, Logical Switch Groups, Logical Switches, and Switches.

2. Click the **+Create network set** button.

The screenshot shows the 'Network Sets' list page. At the top left, there is a green button labeled '+ Create network set'. A red arrow points to this button. The page also includes search and filter options like 'All scopes' and 'All labels'.

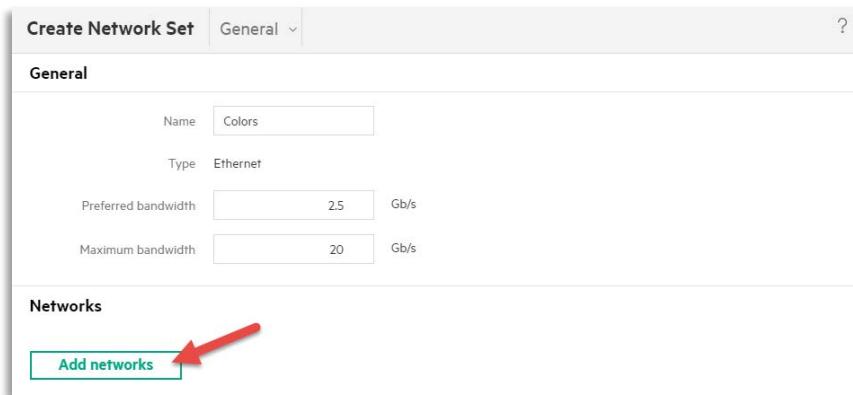
3. From the Create Network Sets dialog menu, enter a **name** for the Network Set.

The screenshot shows the 'Create Network Set' dialog. In the 'General' tab, the 'Name' field is filled with the value 'Colors'. A red arrow points to this input field.

4. Set the **Preferred** and **Maximum Bandwidth**.

The screenshot shows the 'Create Network Set' dialog. In the 'General' tab, there are two sets of bandwidth fields. The first set is for 'Preferred bandwidth' with a value of '2.5 Gb/s'. The second set is for 'Maximum bandwidth' with a value of '20 Gb/s'. Both of these fields are highlighted with red arrows.

5. Click the **Add Networks** button.



6. From the Add Networks Dialog Box, you can search for a Network or multiple Networks, or either click SHIFT/CTRL+Left Mouse Click to select which will either select all in section, or multi-select the networks to add. The following example shows how to find the “A-Side” Ethernet Networks, and create the “A-Side” Network Set.

Add Networks to Colors

Name	VLAN ID
Blue-A	202
Blue-B	202
Ethernet	100
Green-A	203
Green-B	203
Purple-A	204
Purple-B	204
Red-A	201
Red-B	201

7. Click **Add** once the desired networks are selected.

Add Networks to Colors

Name	VLAN ID
Blue-A	202
Blue-B	202
Ethernet	100
Green-A	203
Green-B	203
Purple-A	204
Purple-B	204
Red-A	201
Red-B	201

A red arrow points to the 'Add' button at the bottom of the dialog box.

8. After clicking **Add**, you can select the specific network that will be the *Native VLAN*, or the default untagged network for the Servers Network Connection. This is typically used for PXE traffic.

**Create Network Set** General ?

### General

Name	Colors
Type	Ethernet
Preferred bandwidth	2.5 Gb/s
Maximum bandwidth	20 Gb/s

### Networks

Name	VLAN ID	Untagged
Blue-A	202	<input checked="" type="checkbox"/> <input type="checkbox"/>
Green-A	203	<input checked="" type="checkbox"/> <input type="checkbox"/>
Purple-A	204	<input checked="" type="checkbox"/> <input type="checkbox"/>
Red-A	201	<input checked="" type="checkbox"/> <input type="checkbox"/>

**Add networks** **Remove all**

9. Click **Create** to create the Network Set

**Create Network Set** General ?

### General

Name	Colors
Type	Ethernet
Preferred bandwidth	2.5 Gb/s
Maximum bandwidth	20 Gb/s

### Networks

Name	VLAN ID	Untagged
Blue-A	202	<input checked="" type="checkbox"/> <input type="checkbox"/>
Green-A	203	<input checked="" type="checkbox"/> <input type="checkbox"/>
Purple-A	204	<input checked="" type="checkbox"/> <input type="checkbox"/>
Red-A	201	<input checked="" type="checkbox"/> <input type="checkbox"/>

**Add networks** **Remove all**

Changed: Name to "Colors"

**Create** **Create +** **Cancel**

### Note

In architecting an Active/Active network design for the c7000, repeat the prior steps to create the “B-Side” Network Set. In a Synergy environment the architecture is Active/Active natively.

## Create Logical Interconnect Group



- Create Ethernet Networks
- Create Fibre Channel Networks
- (Optional) HPE 3PAR StorServ Direct Attach
- Create Fibre Channel over Ethernet Networks
- Network Sets
- **Logical Interconnect Groups**
- Enclosure Groups

1. From the Top-Level Menu, select **Logical Interconnect Group (LIG)**.

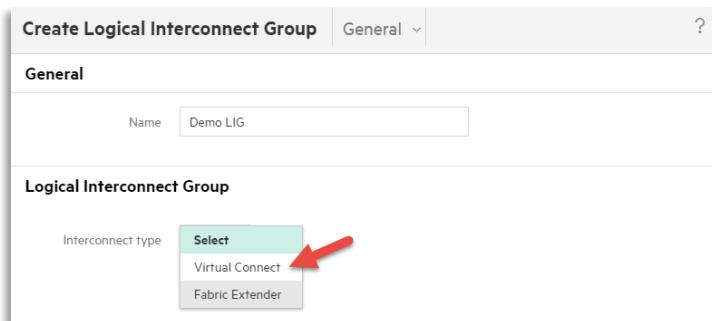
GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Select **+Create Logical Interconnect Group** button.

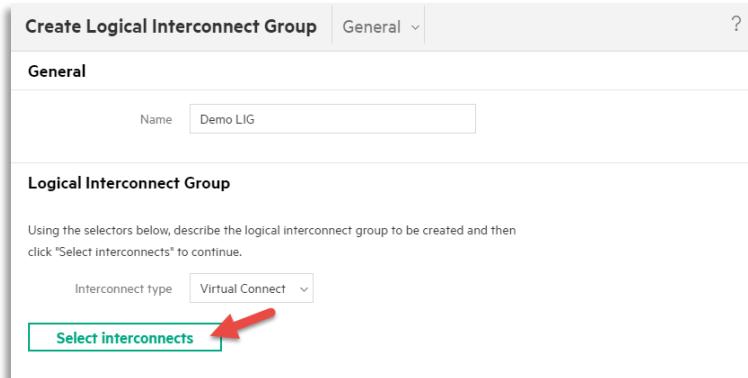
3. Enter a name for the **Logical Interconnect Group (LIG)**.

Create Logical Interconnect Group		General	?
<b>General</b>			
Name	Demo LIG		

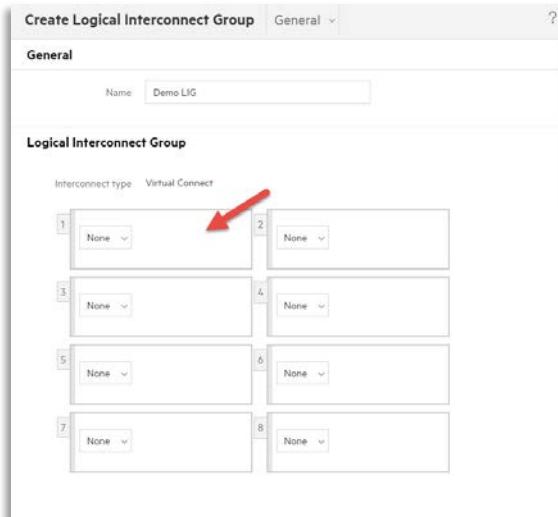
4. Using the drop-down list, select the **Interconnect Type** to be used for the LIG



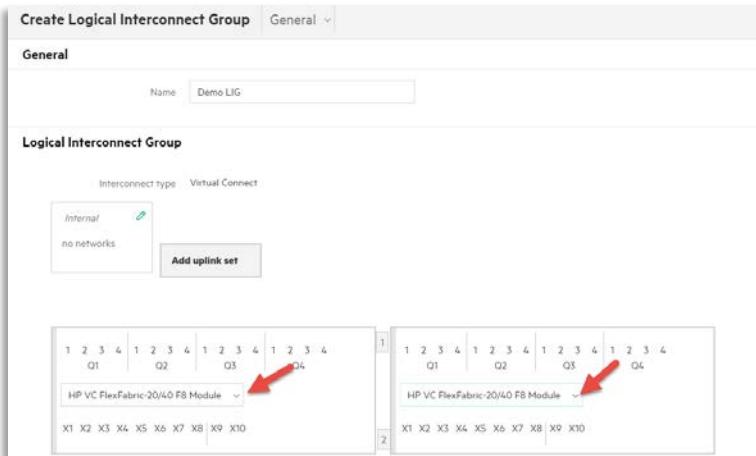
5. Click the **Select Interconnects** button



6. Using the dropdown list add the desired modules to Bays 1 and 2.

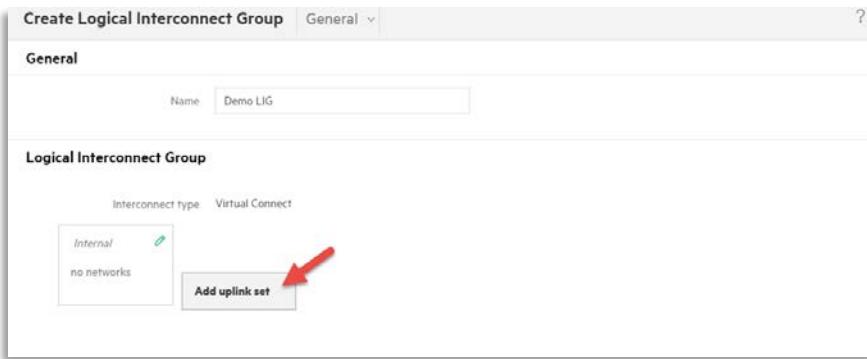


7. Select the correct Virtual Connect Modules, either VC Flex-10, VC Flex-10/10D or VC FlexFabric. When clicking the **Add Module** button next to the peer bay, the UI will automatically select the correct module.



### Creating Uplink Sets

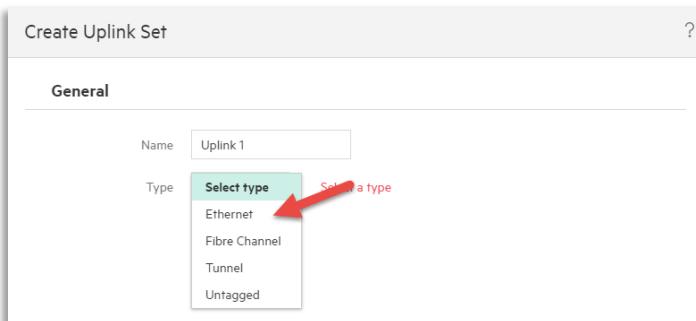
1. Click the **Add uplink set** button.



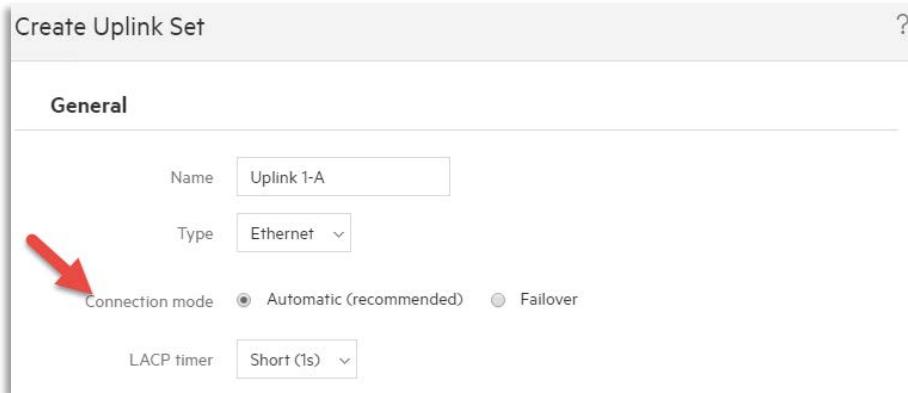
2. In the Create Uplink Set dialog window, select a name for the uplink



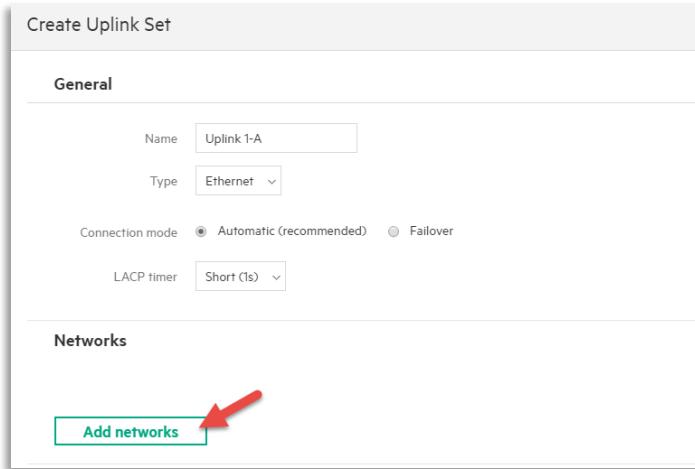
3. Select **Ethernet** as the **Type** from the drop-down box.



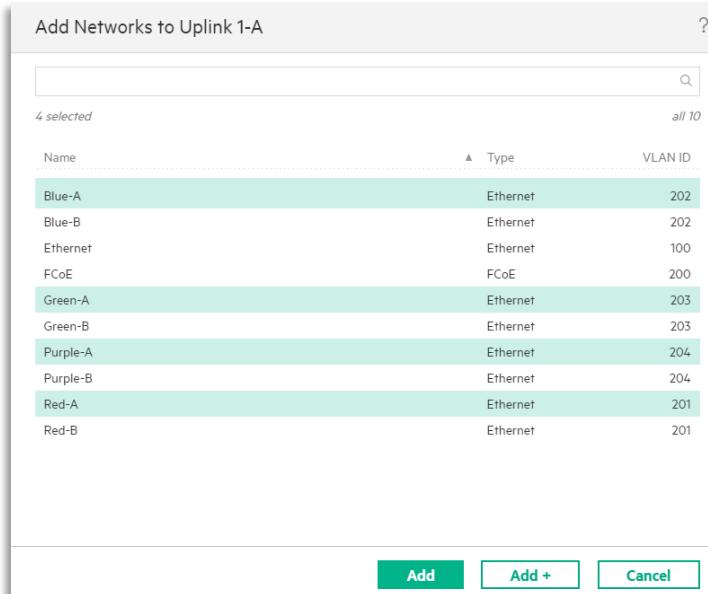
4. Adjust the **Connection Mode** and **LACP Timer** settings to be used by this uplink set. *Automatic* Enables the uplinks to form aggregation groups using the IEEE 802.3ad LACP, and to select the highest performing uplink as the active path to external networks. Select Automatic in an active/active configuration.



5. Click the **Add networks** button to select the networks to add. By not selecting a Network or multiple Networks, they will be *Internal Ethernet Networks* within the Logical Interconnect that is applied to each enclosure from the Logical Interconnect Group.



6. In the Add Networks to Uplink dialog window, add the desired networks for this uplink. A search field is provided to quickly locate a specific Network or multiple Networks. After searching you can either Left Click to select a single network or SHIFT/CTRL+Left Mouse Click to multi-select networks. Once all of your networks are selected, click the **Add** button, or click the **Add+** button to continue to add more networks by searching.



7. Make sure to mark the appropriate network as **Native** if the VLAN on the upstream switch is also the Native or Default VLAN.

Create Uplink Set

**General**

Name	Uplink 1-A
Type	Ethernet
Connection mode	<input checked="" type="radio"/> Automatic (recommended) <input type="radio"/> Failover
LACP timer	Short (1s)

**Networks**

Name	Type	VLAN ID	Native
Blue-A	Ethernet	202	<input checked="" type="checkbox"/>
Green-A	Ethernet	203	<input type="checkbox"/>
Purple-A	Ethernet	204	<input type="checkbox"/>
Red-A	Ethernet	201	<input type="checkbox"/>

**Add networks** **Remove all**

8. Click the **Add Uplink Ports** button to add uplink ports.

Create Uplink Set

**General**

Name	Uplink 1-A
Type	Ethernet
Connection mode	<input checked="" type="radio"/> Automatic (recommended) <input type="radio"/> Failover
LACP timer	Short (1s)

**Networks**

Name	Type	VLAN ID	Native
Blue-A	Ethernet	202	<input checked="" type="checkbox"/>
Green-A	Ethernet	203	<input type="checkbox"/>
Purple-A	Ethernet	204	<input type="checkbox"/>
Red-A	Ethernet	201	<input type="checkbox"/>

**Add networks** **Remove all**

**Uplink Ports**

**Add uplink ports** 

9. In the Add Uplink Ports to Uplink dialog, select at least one port from each Ethernet Module. To quickly add multiple Uplink Ports, first search for a common port (e.g. X5), select them, click the **Add+** button, then change the search to another port (e.g. X6) and click the **Add** button.

Add Uplink Ports to Uplink 1-A

Interconnect Module	Bay	Port	Capability
HP VC FlexFabric-20/40 F8 Module	1	X3.3	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X3.4	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X4.1	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X4.2	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X4.3	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X4.4	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X1	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X2	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X3	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X4	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X5	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X6	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X7	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	1	X8	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q1.1	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q1.2	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q1.3	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q1.4	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q2.1	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q2.2	Ethernet + FCoE
HP VC FlexFabric-20/40 F8 Module	2	Q2.3	Ethernet + FCoE

**Add** **Add +** **Cancel**

10. After you have added the Uplink Ports to your Uplink Set, click the **Create** button. Select the **Create+** button if you wish to define an additional Uplink Set – e.g. the B-Side Uplink Set.

Create Uplink Set

Name	Uplink 1-A
Type	Ethernet
Connection mode	<input checked="" type="radio"/> Automatic (recommended) <input type="radio"/> Failover
LACP timer	Short (1s)

**Add networks** **Remove all**

**Networks**

Name	Type	VLAN ID	Native
Blue-A	Ethernet	202	<input checked="" type="checkbox"/>
Green-A	Ethernet	203	<input type="checkbox"/>
Purple-A	Ethernet	204	<input type="checkbox"/>
Red-A	Ethernet	201	<input type="checkbox"/>

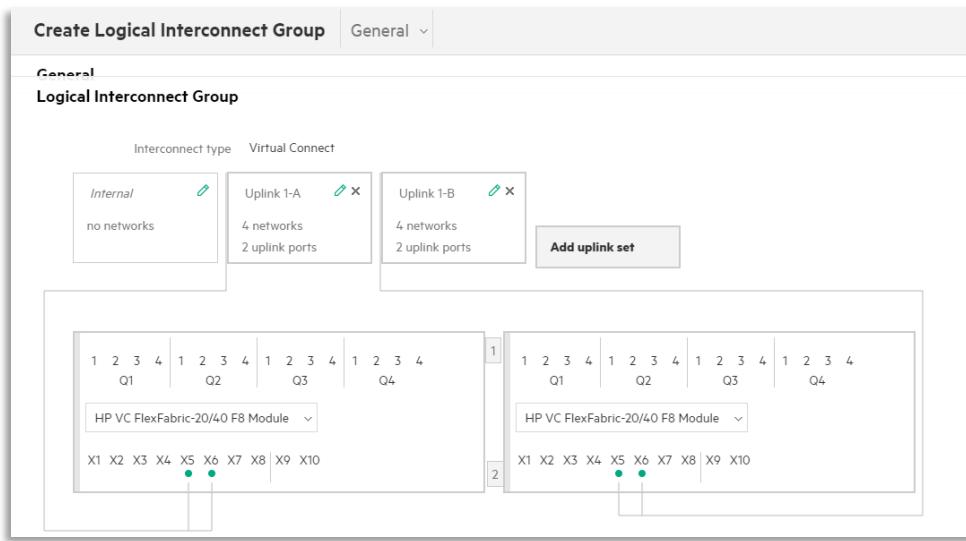
**Uplink Ports**

Interconnect Module	Bay	Port	Capability	Preferred
HP VC FlexFabric-20/40 F8 Module	1	X5	Ethernet + FCoE	<input type="checkbox"/>
HP VC FlexFabric-20/40 F8 Module	1	X6	Ethernet + FCoE	<input checked="" type="checkbox"/>

**Add uplink ports** **Remove all**

**Create** **Create +** **Cancel**

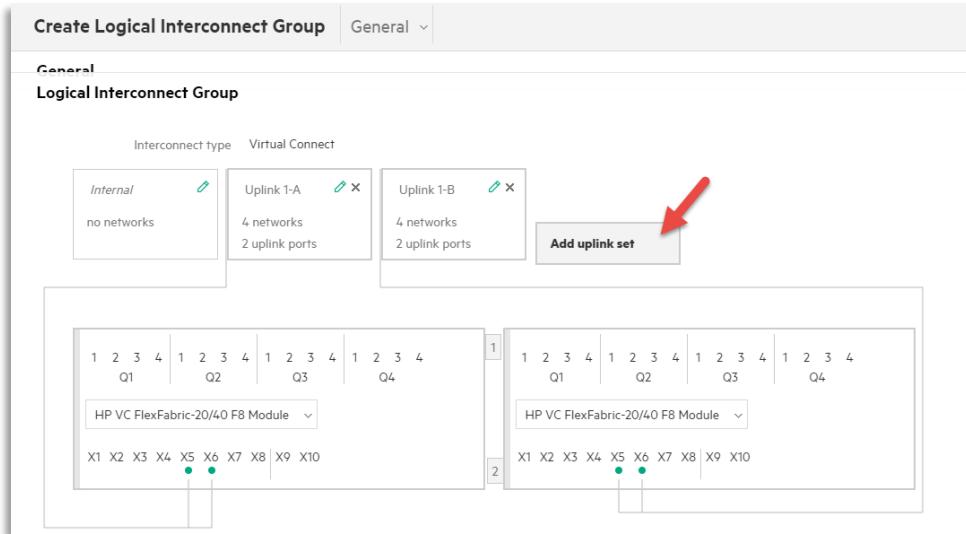
11. Verify that the uplinks are shown in the Create Logical Interconnect Dialog Window.



12. Continue to the next section to create **Fibre Channel Uplink Sets**.

#### Creating Fibre Channel Uplink Sets (Optional)

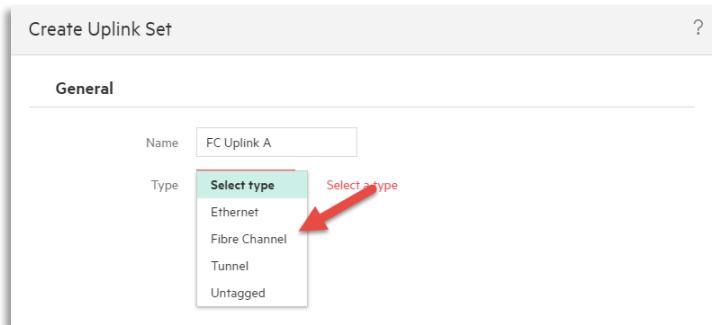
1. Click the **Add uplink set** button to add SAN Fabrics.



2. In the Create Uplink Set dialog window, enter a **Name** for the uplink



3. From the Type drop down list select **Fibre Channel**.



4. In the Networks section, select the desired **SAN Fabric Name** from the drop-down list.

Network	
Direct Attached-A	Direct attach
Direct Attached-B	Direct attach
Fibre Channel	Fabric attach

5. Under the Uplink Ports heading, click **Add Uplink Ports**

6. In the Add Uplink Ports to Uplink dialog, select at least one port for the uplink then click **Add**.

Add Uplink Ports to FC Uplink A

2 selected all 12

Interconnect Module	Bay	Port
HP VC FlexFabric-20/40 F8 Module	1	X1
HP VC FlexFabric-20/40 F8 Module	1	X2
HP VC FlexFabric-20/40 F8 Module	1	X3
HP VC FlexFabric-20/40 F8 Module	1	X4
HP VC FlexFabric-20/40 F8 Module	1	X7
HP VC FlexFabric-20/40 F8 Module	1	X8
HP VC FlexFabric-20/40 F8 Module	2	X1
HP VC FlexFabric-20/40 F8 Module	2	X2
HP VC FlexFabric-20/40 F8 Module	2	X3
HP VC FlexFabric-20/40 F8 Module	2	X4
HP VC FlexFabric-20/40 F8 Module	2	X7
HP VC FlexFabric-20/40 F8 Module	2	X8

Add Add + Cancel

7. Click the **Create** button to finalize the Fibre Channel Uplink.

Create Uplink Set

General

Name: FC Uplink A

Type: Fibre Channel

Network: Direct Attached-A

Uplink Ports

Interconnect Module	Bay	Port	Speed
HP VC FlexFabric-20/40 F8 Module	1	X3	Auto
HP VC FlexFabric-20/40 F8 Module	1	X4	Auto

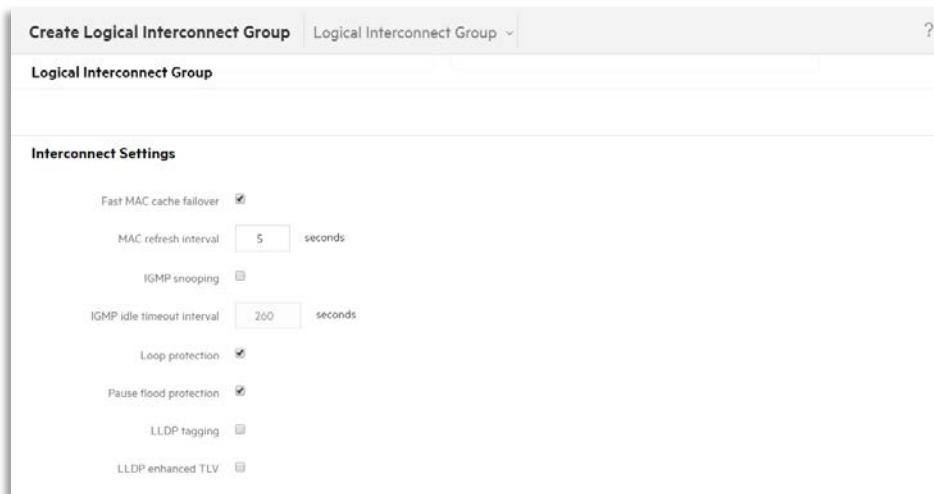
Add uplink ports Remove all Create Create + Cancel

#### Note

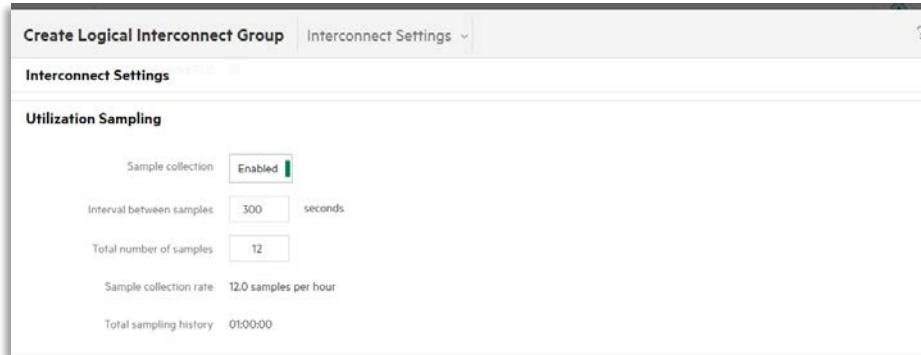
If you are creating an Active/Active network design, repeat the prior steps to create the “B-Side” Uplinks.

#### Finalizing the Logical Interconnect Group Settings

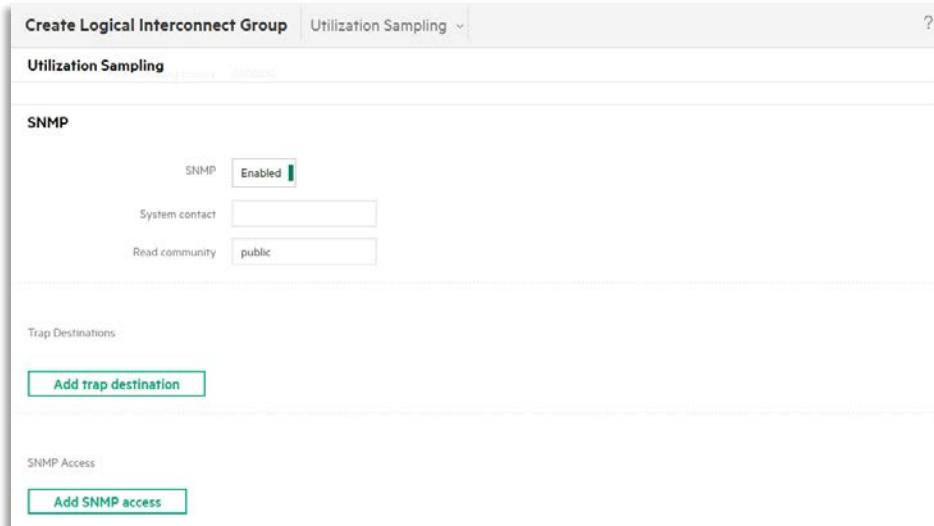
- From the Create Logical Interconnect Group window, scroll down to the Interconnect settings section. Configure any of the settings that are needed.



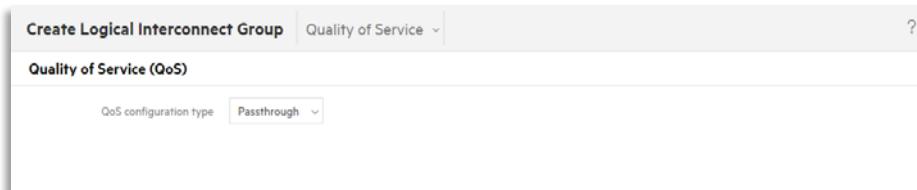
2. From the Create Logical Interconnect Group window, scroll down to the Utilization Sampling section. Configure any of the settings that are needed.



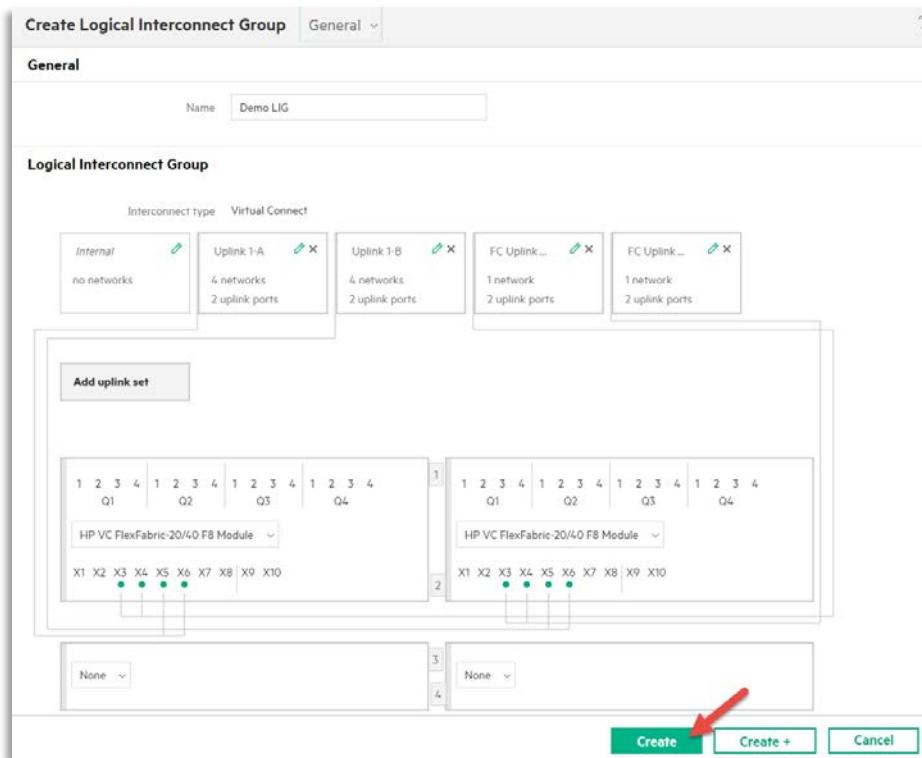
3. From the Create Logical Interconnect Group window, scroll down to the SNMP section. Configure any of the settings that are needed.



4. From the Create Logical Interconnect Group window, scroll down to the QoS section. Configure any of the settings that are needed.



5. Click **Create** to create the Logical Interconnect Group



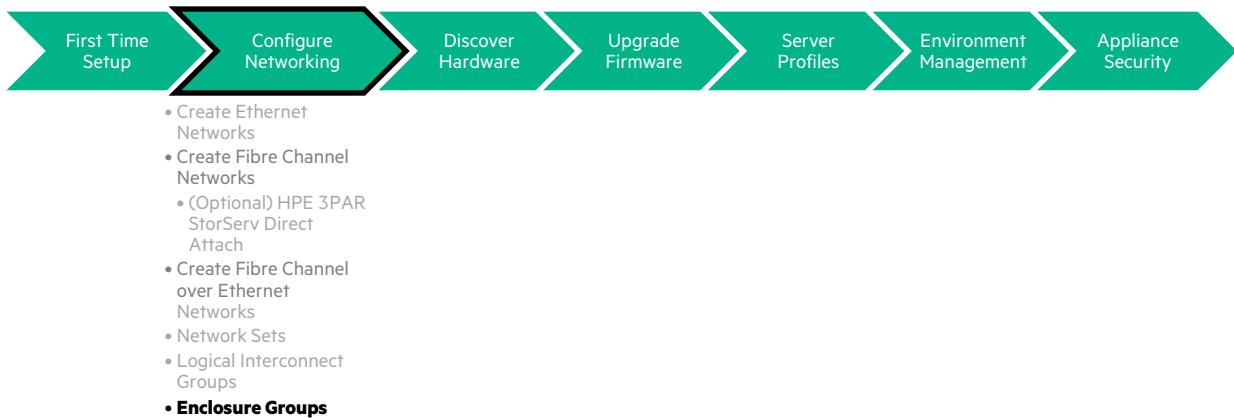
## Reviewing Logical Interconnect Group Configuration

- Select the Logical Interconnect Group from the left-hand menu.

The screenshot shows the HPE OneView interface with the 'Logical Interconnect Groups' list. A red arrow points to the 'Demo LIG' entry in the list. The details page for 'Demo LIG' is displayed, showing the configuration details. The 'Actions' dropdown shows the status 'Completed'.

- Mouse over of the **Uplink sets**. Examine the relationship of the Uplink set to the physical modules and their uplink ports.

The screenshot shows the HPE OneView interface for managing Logical Interconnect Groups. The main title is "Logical Interconnect Groups" with a sub-section "Demo LIG". The left sidebar has a button "+ Create logical interconnect group". The main area displays the "Logical Interconnect Group" details for "Demo LIG". It includes a summary table with four rows: "Internal" (no networks), "IFC Uplink..." (1 network, 2 uplink ports), "Uplink 1-A" (4 networks, 2 uplink ports), and "Uplink 1-B" (4 networks, 2 uplink ports). Below this is a detailed diagram of two HP VC FlexFabric 20/40 FB Modules. The left module (Q1-Q4) has ports X1-X10, with X2 and X4 highlighted in green. The right module (Q1-Q4) has ports X1-X10, with X2-X4 highlighted in green. A legend indicates that green dots represent active connections. The "General" section shows "Used by: none". The "Internal Networks" section says "No internal networks". The "Uplink Sets" section lists "FC Uplink A". At the bottom right is a watermark: "HP's Synergy Benefits for Production - HPE Converged".



## Create Enclosure Group

An *Enclosure Group* is a centralized configuration policy, similar to that of the *Logical Interconnect Group*, in which all associated Enclosures retrieve their configuration from. The Enclosure Group can define the Logical Interconnect Group association, and an Enclosure Configuration Script can be assigned that will allow the administrator to configure other allowed settings of the OA.

1. From the Top-Level Menu, select **Enclosure Groups**.

The screenshot shows the HPE OneView interface with the 'Hypervisors' tab selected. A red arrow points to the 'Hypervisor Managers' link under the 'Hypervisors' section.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Users and Groups
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Click on the Create Enclosure Group button

The screenshot shows the 'Enclosure Groups' screen. A red arrow points to the green 'Create enclosure group' button at the top left.

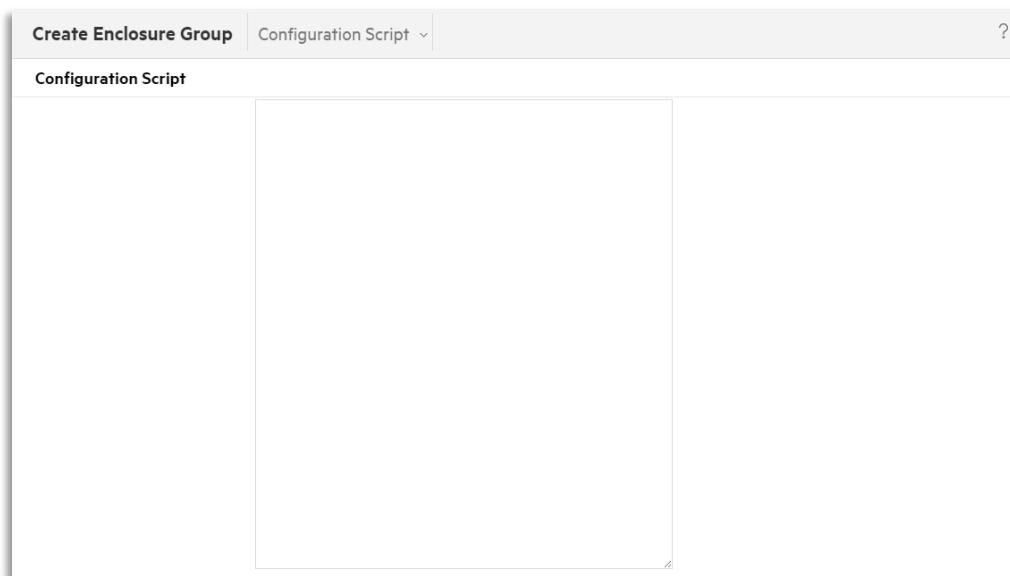
3. In the Create Enclosure Group screen, enter a **Name** for the enclosure group.

The screenshot shows the 'Create Enclosure Group' dialog with the 'General' tab selected. A red arrow points to the 'Name' input field, which is empty.

4. Using the drop-down menu, select the appropriate **Logical Interconnect Group** to be used by the enclosure.

The screenshot shows the 'Create Enclosure Group' dialog with the 'Interconnect Bay Configuration' tab selected. A red arrow points to the 'Logical interconnect group' dropdown for bay 2, which is set to 'None'. Another red arrow points to the 'Logical interconnect group' dropdown for bay 3, which is set to 'Demo LI G'.

5. In the Configuration Script section, enter any configuration script that needs to be executed against the enclosure.



#### Note

Use configuration scripts to simplify new enclosure deployment and configuration, particularly when setting up multiple enclosures, eliminating the need to configure each enclosure manually. By entering a configuration script on the *Enclosure Groups* screen, a copy of the configuration script is stored with every enclosure you add that is associated with that enclosure group.

#### Note

The Enclosure Script will not allow all OA CLI commands to be used. The following table outlines the blacklisted commands:

**Table 10.** Enclosure Groups Configuration Script Blacklist

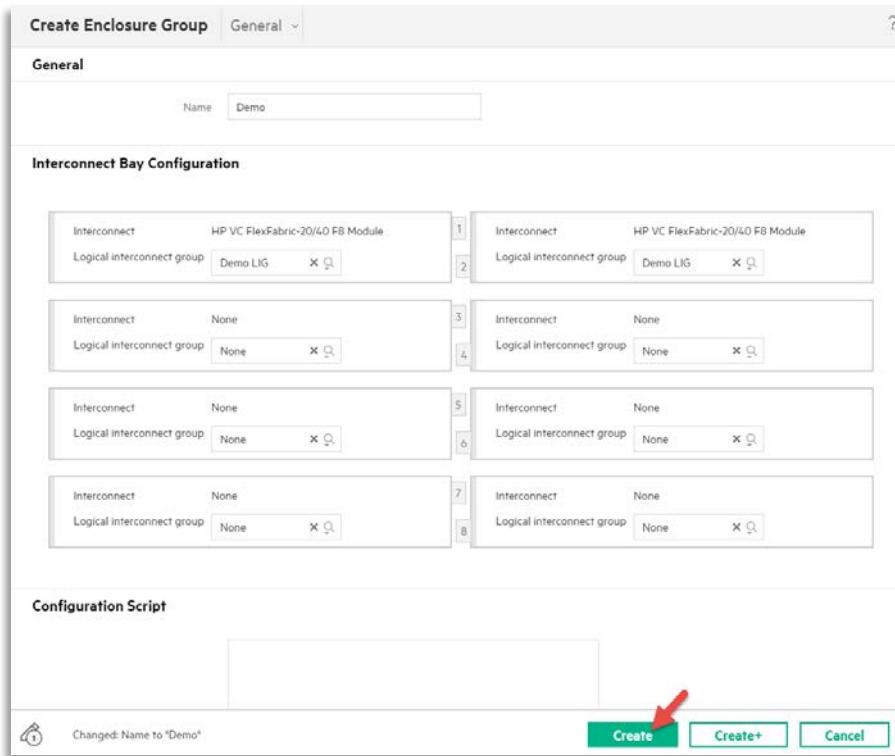
<b>ADD EBIPA REMOVE CA CERTIFICATE SET ENCLOSURE NAME</b>	<b>ADD EBIPA REMOVE CA CERTIFICATE SET ENCLOSURE NAME</b>	<b>ADD EBIPA REMOVE CA CERTIFICATE SET ENCLOSURE NAME</b>
<b>ADD EBIPAV6 REMOVE EBIPA SET ENCLOSURE SERIAL_NUMBER</b>	<b>ADD EBIPAV6 REMOVE EBIPA SET ENCLOSURE SERIAL_NUMBER</b>	<b>ADD EBIPAV6 REMOVE EBIPA SET ENCLOSURE SERIAL_NUMBER</b>
<b>CLEAR NTP REMOVE EBIPAV6 SET ENCRYPTION</b>	<b>CLEAR NTP REMOVE EBIPAV6 SET ENCRYPTION</b>	<b>CLEAR NTP REMOVE EBIPAV6 SET ENCRYPTION</b>
<b>CLEAR VCMODE REMOVE HPSIM CERTIFICATE SET FACTORY</b>	<b>CLEAR VCMODE REMOVE HPSIM CERTIFICATE SET FACTORY</b>	<b>CLEAR VCMODE REMOVE HPSIM CERTIFICATE SET FACTORY</b>
<b>DISABLE DHCP_DOMAIN_NAME REMOVE OA ADDRESS IPV6 SET FIPS MODE</b>	<b>DISABLE DHCP_DOMAIN_NAME REMOVE OA ADDRESS IPV6 SET FIPS MODE</b>	<b>DISABLE DHCP_DOMAIN_NAME REMOVE OA ADDRESS IPV6 SET FIPS MODE</b>
<b>DISABLE EBIPA REMOVE SNMP TRAPRECEIVER SET HPSIM TRUST MODE</b>	<b>DISABLE EBIPA REMOVE SNMP TRAPRECEIVER SET HPSIM TRUST MODE</b>	<b>DISABLE EBIPA REMOVE SNMP TRAPRECEIVER SET HPSIM TRUST MODE</b>
<b>DISABLE EBIPAV6 REMOVE SNMP TRAPRECEIVER V3 SET IPCONFIG</b>	<b>DISABLE EBIPAV6 REMOVE SNMP TRAPRECEIVER V3 SET IPCONFIG</b>	<b>DISABLE EBIPAV6 REMOVE SNMP TRAPRECEIVER V3 SET IPCONFIG</b>
<b>DISABLE FIRMWARE MANAGEMENT REMOVE SNMP USER SET NTP</b>	<b>DISABLE FIRMWARE MANAGEMENT REMOVE SNMP USER SET NTP</b>	<b>DISABLE FIRMWARE MANAGEMENT REMOVE SNMP USER SET NTP</b>
<b>DISABLE HTTPS REMOVE TRUSTED HOST SET NTP PRIMARY</b>	<b>DISABLE HTTPS REMOVE TRUSTED HOST SET NTP PRIMARY</b>	<b>DISABLE HTTPS REMOVE TRUSTED HOST SET NTP PRIMARY</b>
<b>DISABLE IPV6 REMOVE USER CERTIFICATE SET OA DOMAIN_NAME</b>	<b>DISABLE IPV6 REMOVE USER CERTIFICATE SET OA DOMAIN_NAME</b>	<b>DISABLE IPV6 REMOVE USER CERTIFICATE SET OA DOMAIN_NAME</b>
<b>DISABLE IPV6DYNDNS REMOVE USER vcmuser SET OA NAME</b>	<b>DISABLE IPV6DYNDNS REMOVE USER vcmuser SET OA NAME</b>	<b>DISABLE IPV6DYNDNS REMOVE USER vcmuser SET OA NAME</b>
<b>DISABLE NTP REMOVE USERS ALL SET PASSWORD</b>	<b>DISABLE NTP REMOVE USERS ALL SET PASSWORD</b>	<b>DISABLE NTP REMOVE USERS ALL SET PASSWORD</b>

**Table 10.** Enclosure Groups Configuration Script Blacklist

<b>DISABLE SLAAC SAVE EBIPA SET SNMP COMMUNITY READ</b>	<b>DISABLE SLAAC SAVE EBIPA SET SNMP COMMUNITY READ</b>	<b>DISABLE SLAAC SAVE EBIPA SET SNMP COMMUNITY READ</b>
<b>DISABLE SNMP SAVE EBIPAV6 SET SSO TRUST MODE</b>	<b>DISABLE SNMP SAVE EBIPAV6 SET SSO TRUST MODE</b>	<b>DISABLE SNMP SAVE EBIPAV6 SET SSO TRUST MODE</b>
<b>DISABLE TRUSTED HOST SET DATE SET TIMEZONE</b>	<b>DISABLE TRUSTED HOST SET DATE SET TIMEZONE</b>	<b>DISABLE TRUSTED HOST SET DATE SET TIMEZONE</b>
<b>DISABLE USER vcmuser SET EBIPA SET USER ACCESS vcmuser</b>	<b>DISABLE USER vcmuser SET EBIPA SET USER ACCESS vcmuser</b>	<b>DISABLE USER vcmuser SET EBIPA SET USER ACCESS vcmuser</b>
<b>ENABLE DHCP_DOMAIN_NAME SET EBIPAV6 SHOW ALL</b>	<b>ENABLE DHCP_DOMAIN_NAME SET EBIPAV6 SHOW ALL</b>	<b>ENABLE DHCP_DOMAIN_NAME SET EBIPAV6 SHOW ALL</b>
<b>ENABLE EBIPA SET EBIPA INTERCONNECT SHOW SYSLOG { OA   HISTORY }</b>	<b>ENABLE EBIPA SET EBIPA INTERCONNECT SHOW SYSLOG { OA   HISTORY }</b>	<b>ENABLE EBIPA SET EBIPA INTERCONNECT SHOW SYSLOG { OA   HISTORY }</b>
<b>ENABLE EBIPAV6 SET EBIPA SERVER UNASSIGN { SERVER   INTERCONNECT } { &lt;bay number&gt;   ALL   &lt;bay number range&gt; } vcmuser</b>	<b>ENABLE EBIPAV6 SET EBIPA SERVER UNASSIGN { SERVER   INTERCONNECT } { &lt;bay number&gt;   ALL   &lt;bay number range&gt; } vcmuser</b>	<b>ENABLE EBIPAV6 SET EBIPA SERVER UNASSIGN { SERVER   INTERCONNECT } { &lt;bay number&gt;   ALL   &lt;bay number range&gt; } vcmuser</b>
<b>ENABLE FIRMWARE MANAGEMENT SET ENCLOSURE ASSET TAG UNASSIGN OA vcmuser</b>	<b>ENABLE FIRMWARE MANAGEMENT SET ENCLOSURE ASSET TAG UNASSIGN OA vcmuser</b>	<b>ENABLE FIRMWARE MANAGEMENT SET ENCLOSURE ASSET TAG UNASSIGN OA vcmuser</b>

Please refer to the *Configure an enclosure with an OA configuration script* section of the Online Help, or User Guide for an updated list.

- Click the **Create** button to create the Enclosure Group, or **Create+** to create the Enclosure Group and additional Enclosure Group



## Setting up Remote Support for supported devices

HPE OneView contains support automation functionality for Gen 8 and newer devices. These devices will have cases for them created automatically through the remote support functionality. If Insight Online is enabled, then the information will be visible within the HPE Support Center.

Note: HPE OneView supports ProLiant BL, DL and Apollo G7 and newer devices however the Remote support functionality is not available on ProLiant G6 and G7 devices. To enable support automation on these devices please use Insight Remote Support.

- From the Top-Level Menu, select **Settings**

The screenshot shows the 'Settings' section of the HPE OneView interface. It includes tabs for General, Servers, Hypervisors, Networking, Storage, and Facilities. Under the 'Facilities' tab, there is a 'Settings' link which is highlighted with a red arrow.

2. From the Settings page, find the Remote Support Section and select **Remote Support**

This screenshot shows the 'Settings' page with the 'Remote Support' section selected. It displays various configuration options like Appliance, Backup, Networking, Time and Locale, and Proxy. The 'Remote Support' link is located under the 'Addresses and Identifiers' section, which is highlighted with a red arrow.

3. On the Remote Support page, select **Edit** from the Actions menu

This screenshot shows the 'Remote Support' page with the 'Edit' button highlighted in the Actions menu, indicated by a red arrow.

4. On the Edit Remote Support dialog window, check the box **Enable Remote Support**

This screenshot shows the 'Edit Remote Support' dialog window. At the bottom, there is a checkbox labeled 'Enable remote support' which is checked, indicated by a red arrow.

5. In the Registration Information section of the Edit Remote Support dialog window, enter the **Company Name**

Enabling HPE Remote Support configures your monitored devices to be remotely supported and/or serviced. Service, diagnostic, configuration, telemetry and contact information will be securely transmitted to HPE. No other business information is collected and the data is managed according to the HPE Data Privacy policy. [Learn more](#)

Enable remote support

I consent to having HPE or my HPE authorized reseller contact me to discuss optimizing my IT environment. [Learn more](#)

Registration Information

Registration status: Not registered

Company name:

#### 6. Enter the **Initial Contact Information**

Registration status: Not registered

Company name: Demo

Initial Contact

First name:	<input type="text"/>	After registration, additional contacts may be specified and any contact may be set as the default.
Last name:	<input type="text"/>	
Email address:	<input type="text"/>	
Preferred language:	English	
Phone number:	<input type="text"/>	
Alternate phone number:	<input type="text"/>	
Special instructions:	<input type="text"/>	

7. Enter the **Default Data Center Address**. This needs to be where the servers are physically located because this is where the parts will be sent.

Initial Contact  
Default DataCenter Address

Address line 1  
Address line 2  
City  
State/Province  
Postal code  
Country  
Time zone

optional

Search

Search

Register with Hewlett Packard Enterprise

**8. Click **Register with Hewlett Packard Enterprise****

Initial Contact  
Default DataCenter Address

Address line 1: 11445 Compaq Center Drive West  
Address line 2: optional  
City: Houston  
State/Province: Texas  
Postal code: 77070  
Country: United States  
Time zone: Canada Central (GMT-5:00)

Register with Hewlett Packard Enterprise

**9. Click **Yes, Register** to initialize the registration with Hewlett Packard Enterprise.**

Register with Hewlett Packard Enterprise

Registration with Hewlett Packard Enterprise remote support will occur immediately. All devices managed by this appliance will be automatically setup for monitoring and service events. Once registered for remote support this appliance cannot be unregistered.

Register with Hewlett Packard Enterprise?

Yes, register Cancel

### (Optional) Setting up Insight Online

Once an HPE OneView instance is registered with HPE then Insight Online can be enabled. Enabling Insight Online will make case, warranty and other information visible within the HPE Support Center.

- From the Top-Level menu, select **Settings**

The screenshot shows the HPE OneView navigation bar with several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under SERVERS, there are links for Dashboard, Activity, Firmware Bundles, Reports, Server Profiles, Server Profile Templates, Enclosure Groups, Logical Enclosures, Rack Managers, Server Hardware, and Server Hardware Types. Under HYPERVISORS, there are links for Hypervisor Cluster Profiles, Hypervisor Profiles, Hypervisor Managers, Networks, Network Sets, Logical Interconnect, Groups, Logical Interconnects, Interconnects, Logical Switch, Groups, Logical Switches, and Switches. Under FACILITIES, there are links for Data Centers, Racks, Power Delivery Devices, Volumes, Volume Templates, Storage Pools, Storage Systems, SANs, SAN Managers, Unmanaged Devices, and Settings. A red arrow points to the 'Settings' link under FACILITIES.

2. From the Settings page, find the Remote Support Section and select **Remote Support**

The screenshot shows the 'Settings' page with various sections: Appliance, Backup, Networking, Time and Locale, Proxy, Licenses, Security, Notifications, Scopes, Activity, SNMP, Addresses and Identifiers, and Remote Support. A red arrow points to the 'Remote Support' section under Addresses and Identifiers.

3. On the Remote Support page, select **Edit** from the Actions menu

The screenshot shows the 'Remote Support' page with a 'General' tab. In the top right corner, there is an 'Actions' button with a dropdown menu. The 'Edit' option in this menu is highlighted with a red arrow.

4. On the Edit Remote Support dialog window, scroll down to the HPE Insight Online section. Check the box **Enable HPE Insight Online Integration**.

The screenshot shows the 'Edit Remote Support' dialog window. It has tabs for 'General' and 'HP Insight Online'. The 'HP Insight Online' tab is active. There is a checkbox labeled 'Enable HP Insight Online Integration' which is checked. A red arrow points to this checkbox.

5. Enter the passport account user name and password to register this HPE OneView instance with HPE Insight Online

The screenshot shows the 'Insight Online' registration form. It includes a checkbox 'Enable Insight Online integration' which is checked. Below it are fields for 'HPE Passport user name' and 'HPE Passport password', both of which are highlighted with red boxes. There is also a link 'Need an HPE Passport?'.

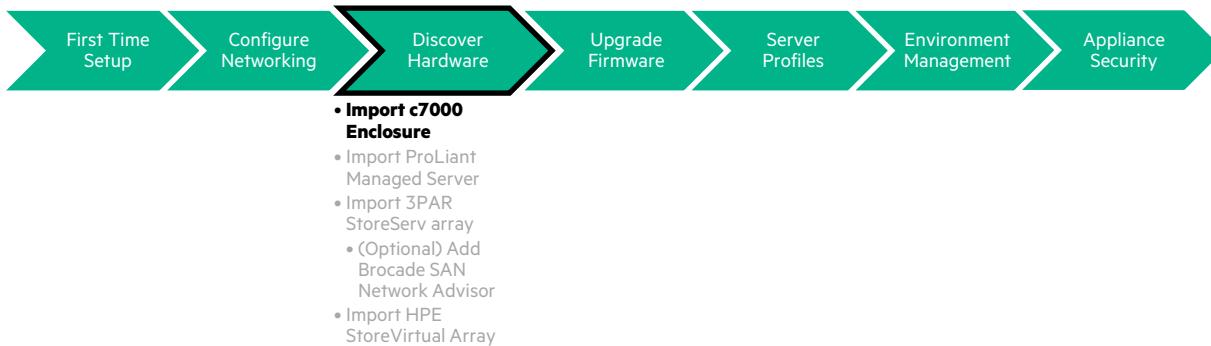
6. Click **OK** to apply the changes

**Insight Online**

Enable Insight Online integration

HPE Passport user name rspli.onboarding@oneview.com

## Import a Managed Enclosure



In this section, you will go through the process on how to import an enclosure into the HPE OneView console. In order to successfully import an enclosure, the Onboard Administrator must be configured. At a minimum, both the Primary and Secondary OA must have a valid IP Address, Enclosure Bay IP Addressing or external DHCP Server supplying IP leases, and a valid Administrator-role account. During the Enclosure Import process, HPE OneView will automatically configure SNMP, NTP and the HPE SIM Single-Sign-On Certificate with the HPE OneView appliance IP Address and public SSL Certificate. The Enclosure Import process will also discover any device in the enclosure's Device Bays and attempt to configure the supported iLO's for management (SNMP, NTP, HPE SIM SSO Certificate, create a special user account \_HPOneViewAdmin) and license the iLO's and servers based on the License Intent setting in the *Add Enclosure* screen.

### Enclosure Import Checklist

**Table 11.** Enclosure Import Checklist

Task	Completed? (Y N)
<b>Documented Onboard Administrator IP Address or FQDN</b>	
<b>Documented Onboard Administrator administrator credentials</b>	
<b>Configured Onboard Administrator settings (EBIPA, Power Redundancy, etc.)</b>	

#### Warning

If there is an existing Virtual Connect Domain on the enclosure that needs to be imported, please see the steps in the Maintenance section of the document – [Importing an enclosure managed by Virtual Connect Manager](#)

#### Note

If an enclosure is imported as a *Managed* enclosure then HPE OneView Managed licenses will automatically be applied to the blades within the enclosure

1. From the Top-Level Menu, select **Enclosures**.

The screenshot shows the HPE OneView interface with the 'Servers' category selected. Under 'Servers', the 'Enclosures' option is highlighted with a red arrow. Other visible options include 'Server Profiles', 'Logical Enclosures', 'Rack Managers', 'Server Hardware', and 'Types'.

2. Click the **Add Enclosure** button.

The screenshot shows the 'Add Enclosure' page. The '+ Add enclosure' button is highlighted with a red arrow. The page includes search and filter options for 'Enclosures'.

3. Enter the **IP address** or the **Hostname** of the enclosure to be imported.

The screenshot shows the 'Add Enclosure' page with the 'OA IP address or host name' field containing '172.18.1.11'.

4. Select the Add enclosure for Management option

The screenshot shows the 'Add Enclosure' page with the 'Action' section. The 'Add enclosure for management' radio button is selected and highlighted with a red arrow.

5. Enter the **credentials** for the Onboard Administrator.

The screenshot shows the 'Add Enclosure' page with the 'Credentials' section. The 'User name' field contains 'dcs' and the 'Password' field contains '\*\*\*'.

6. Select the **Enclosure Group** from the drop-down list.

**Add Enclosure** OA Credentials ?

### OA Credentials

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

### Credentials

User name: dcs

Password: \*\*\*

### General

Enclosure group: Demo

7. Select the desired license policy (Note: if the wrong license is selected the enclosure will need to be deleted from HPE OneView and re-added. This is not something that can be changed after being imported.)

**Add Enclosure** OA Credentials ?

### OA Credentials

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

### Credentials

User name: dcs

Password: \*\*\*

### General

Enclosure group: Demo

Licensing:

- HPE OneView Advanced
- HPE OneView Advanced w/o iLO

[Learn more](#)

8. Specify the **Firmware Baseline** from the drop-down list.

**OA Credentials**

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

**Credentials**

User name: dcs

Password: \*\*\*

**General**

Enclosure group: Demo

Licensing:  HPE OneView Advanced    HPE OneView Advanced w/o iLO   [Learn more](#)

**Firmware**

Firmware baseline: Service Pack for ProLiant, 2016.04.0

**Manage manually** (highlighted with a red box and arrow)

9. Selecting the **Add** or **Add+** button, the enclosure will be discovered, and the OA firmware will be updated to the version within the SPP.

**OA Credentials**

OA IP address or host name: 172.18.3.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

**Credentials**

User name: dcs

Password: \*\*\*

**General**

Enclosure group: Demo

Licensing: [Learn more](#)

HPE OneView Advanced  
18 licenses available

HPE OneView Advanced w/o iLO  
0 licenses available

**Firmware**

Firmware baseline: Service Pack for ProLiant, 2018.06.0

Force installation

**Add** (highlighted with a red box and arrow)

10. Once the enclosure information has been verified, the appliance will begin its discovery process.

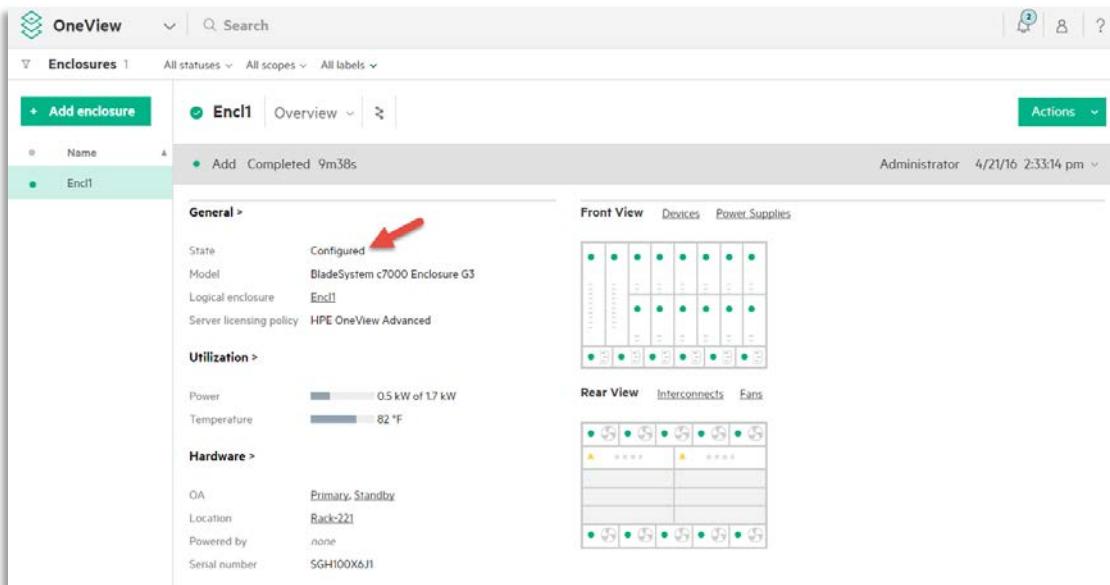
Clicking on the **Details link** will take you to the Activity view of the enclosure, where you can examine the task and subtask details.

The screenshot shows the HPE OneView interface with the 'Enclosures' page selected. On the left, there's a sidebar with a green header bar containing a plus sign and the text '+ Add enclosure'. Below it are sections for 'Name' and 'Enc1'. The main content area has a title 'Encl1 | Overview'. Under 'Overview', there are three main sections: 'Retrieve enclosure information', 'Claim enclosure', and 'Details'. A red arrow points to the 'Details' link. To the right of these sections, there's a timestamp 'Administrator 4/21/16 2:33:14 pm' and a dropdown menu labeled 'Actions'. Below the overview, there's a section titled 'Utilization >' with 'Power' and 'Temperature' status. Further down is a 'Hardware >' section with details about the OA (Primary, Standby), Location (none), Powered by (none), and Serial number (SGH100X6J1). To the right of the hardware details are two small grid diagrams labeled 'Rear View' and 'Interconnects'.

During this time, the appliance will validate if the OA firmware meets the minimum requirement. If the firmware is out of date, the Activity window will display the sub-tasks generated. Below is a sample screenshot.

The screenshot shows the HPE OneView interface with the 'Activity' window open for the 'Add' task. The title bar says 'Encl1 | Activity'. The main content area shows a message 'Validation complete.' and a timestamp 'Administrator 4/21/16 2:33:14 pm'. Below this is a filter bar with dropdowns for 'All', 'All types', 'All statuses', 'All states', 'All time', and 'All owners'. The activity log lists one entry: 'The Enclosure reported a status of OK.' with a timestamp of '4/21/16 2:34:36 pm', a state of 'Cleared', and an owner of 'unassigned'. Below the log is a section titled 'Add' with a list of sub-tasks: 'Retrieve enclosure information', 'Claim enclosure', 'Configure enclosure', and 'Validation complete.'. At the bottom of this list is a link 'Update OA firmware.' followed by 'Start firmware update.' and 'Update OA firmware.'. A red arrow points to the 'Update OA firmware.' link.

After the Add Enclosure task has completed, the Enclosure State should read **Configured**.



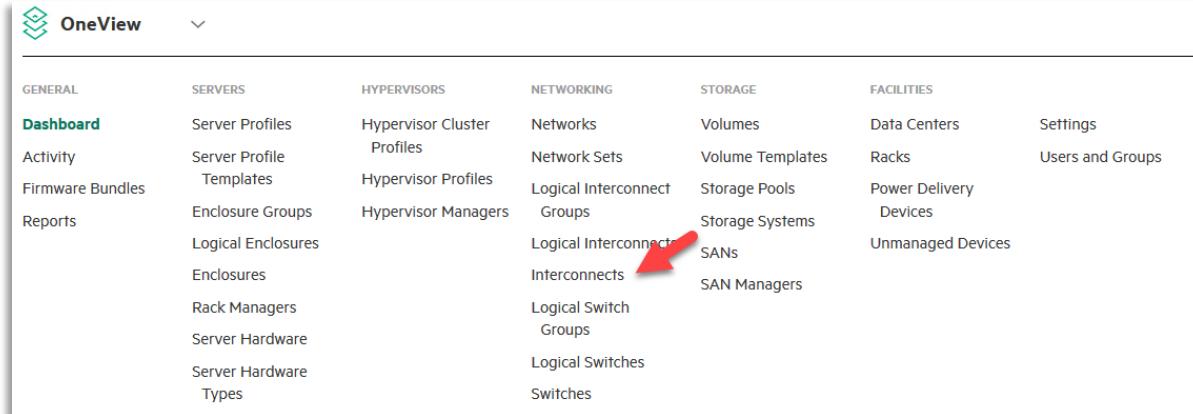
The screenshot shows the HPE OneView interface with the 'Enclosures' page selected. On the left, there's a sidebar with a '+ Add enclosure' button and a list of enclosures, including 'Encl1'. The main panel shows 'Encl1' details: State is 'Configured' (highlighted by a red arrow), Model is 'BladeSystem c7000 Enclosure G3', Logical enclosure is 'Encl1', and Server licensing policy is 'HPE OneView Advanced'. Below this are sections for Utilization (Power: 0.5 kW of 1.7 kW, Temperature: 82°F) and Hardware (OA: Primary-Standby, Location: Rack-221, Powered by: none, Serial number: SGH100X6J1). To the right are 'Front View' and 'Rear View' diagrams showing server bays and rear components like power supplies and fans.

## Examine Imported Resources

After you have successfully imported the enclosure, you will want to verify all the resources in the enclosure have been imported.

### Physical and Logical Interconnects

- From the Top-Level menu, select **Interconnects**



The screenshot shows the HPE OneView top-level menu. The 'Servers' category is expanded, showing 'Server Profiles' and 'Logical Enclosures'. Under 'Logical Enclosures', the 'Interconnects' link is highlighted with a red arrow. Other categories like 'General', 'Dashboard', 'Activity', 'Firmware Bundles', and 'Reports' are also listed.

- Interconnects** are the physical Virtual Connect Modules. If the Virtual Connect modules meet the minimum required version, they should be in a *Configured* State. If the firmware version didn't meet the minimum management requirements, the state of the module would be *Unmanaged*.

The screenshot shows the HPE OneView interface for managing logical interconnects. The main title is "Logical Interconnects 1". A specific logical interconnect, "Encl1-Demo LIG", is selected. The top bar includes a search field and user navigation icons. The main content area displays the logical interconnect configuration, showing four uplink ports (Uplink 1-A, Uplink 1-B) each connected to four networks. Below this, two server blade chassis are shown, labeled "Encl1 interconnect.1" and "Encl1 interconnect.2", each with ten ports (Q1-Q4 and X1-X10). The "General" section provides summary information: Consistency state is "Consistent" (highlighted with a red arrow), Stacking health is "Redundantly connected", Logical enclosure is "Encl1", and there are 2 interconnects. The logical interconnect group is "Demo LIGs".

## Server Hardware

- From the Top-Level Menu, select **Server Hardware**.

The screenshot shows the HPE OneView top-level menu. The "Dashboard" section is active. The "Server Hardware" section is highlighted with a red arrow. Other sections include General, Activity, Firmware Bundles, Reports, Servers, Hypervisors, Networking, Storage, Facilities, Data Centers, Racks, Users and Groups, Power Delivery, Devices, SANs, Unmanaged Devices, Logical Switch Groups, Logical Switches, and Switches.

- The **Server Hardware** section lists the discovered servers listed in the left panel. Selecting a specific server will open the detailed information about the selected server. Some examples of the information presented are installed options, serial numbers, and utilization information.

The screenshot shows the HPE OneView interface. On the left, there's a list titled 'Server Hardware' with 14 items. Each item has a green dot icon, a name (e.g., 'Enc1, bay 1'), a status ('not set'), a server profile ('none'), and a model ('BL660c Gen9'). On the right, a detailed view for 'Enc1, bay 1' is displayed. It includes sections for 'Hardware >' (with fields like 'Server name', 'State', 'Server profile', 'Server power', 'Model', 'Server hardware type', 'Serial number', 'License', and 'iLO address'), 'Utilization >' (showing CPU, Power, and Temperature), and 'Ports >' (listing slots, models, ports, and interconnects). The 'Actions' button is at the top right of the detailed view.

## Server Hardware Types

**Server Hardware Types** are the unique server hardware platforms discovered during the addition of imported enclosures and devices. Their role within HPE OneView is to define the hardware configuration of each server type, which can include the adapter and its location, BIOS settings and even firmware bundles. Because HPE OneView knows the server hardware and its complete configuration, the administrator is able to do advanced configurations on components like network adapters. A network adapter can be configured for specific physical port to network connection mappings during the Server Profiles creation process. The **Server Hardware Type** is automatically created when an *Enclosure* or a *Rack Mount server* is added.

- From the Top-Level Menu, select **Server Hardware Types**.

The screenshot shows the HPE OneView navigation menu. It's organized into several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under SERVERS, there are links for 'Server Profiles', 'Hypervisor Cluster Profiles', 'Networks', 'Volumes', 'Data Centers', and 'Settings'. Under HYPERVISORS, there are links for 'Server Profile Templates', 'Hypervisor Profiles', 'Network Sets', 'Volume Templates', 'Racks', and 'Users and Groups'. Under NETWORKING, there are links for 'Enclosure Groups', 'Hypervisor Managers', 'Logical Interconnect Groups', 'Storage Pools', 'Power Delivery Devices', and 'Unmanaged Devices'. Under STORAGE, there are links for 'Logical Enclosures', 'Interconnects', 'Storage Systems', 'SANs', and 'SAN Managers'. Under FACILITIES, there are links for 'Rack Managers', 'Logical Switch Groups', 'Logical Switches', and 'Switches'. A red arrow points to the 'Server Hardware Types' link under the SERVERS category.

- Examine the different **Hardware Types**.

3. The **Server Hardware Type** allows editing but only to rename it or add a description.

4. Selecting a hardware type will allow you to see the number of servers that have this hardware type as well as the configuration of the network adapters.

## Examine Relationships

HPE OneView has extensive mapping and relationship capabilities. These capabilities allow an administrator to select a component such as a server profile, logical interconnect, or physical server and see what other devices or profiles are linked to the component. This allows the administrator to easily see the impact of a change of other devices. In this example the relationship between the enclosure, physical blade and created networks will be examined.

- From the Top-Level Menu, select **Enclosures**.

The screenshot shows the HPE OneView interface with the 'Servers' tab selected. Under the 'Servers' tab, the 'Enclosures' option is highlighted with a red arrow. Other options include 'Server Profiles', 'Hypervisor Cluster Profiles', 'Networks', 'Volumes', 'Data Centers', 'Activity', 'Server Profile Templates', 'Hypervisor Profiles', 'Network Sets', 'Volume Templates', 'Racks', 'Firmware Bundles', 'Enclosure Groups', 'Logical Interconnects', 'Storage Pools', 'Power Delivery', 'Reports', 'Logical Enclosures', 'Groups', 'Storage Systems', 'Devices', 'Logical Interconnects', 'SANs', 'Unmanaged Devices', 'Rack Managers', 'Interconnects', 'Logical Switch Groups', 'Server Hardware', 'Logical Switches', and 'Server Hardware Types', 'Switches'.

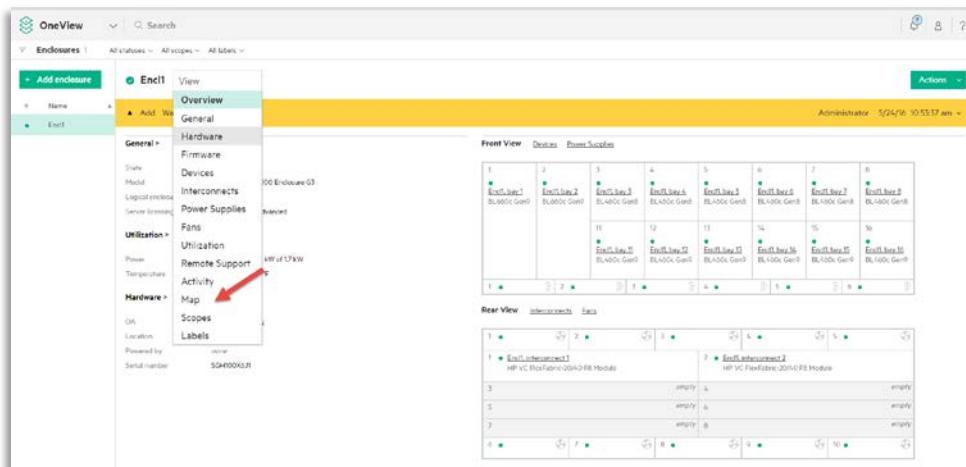
2. To access the Map View, you can either click on the **Map button**, or select **Map** from the sub-menu.

This screenshot shows the 'Enclosures' overview for 'Enclosure G3'. The 'Map' button is highlighted with a red arrow. The page displays various details about the enclosure, including its status, model, logical enclosure, server licensing policy, utilization, hardware components like fans and power supplies, and activity logs. It also includes front and rear view diagrams of the physical hardware.

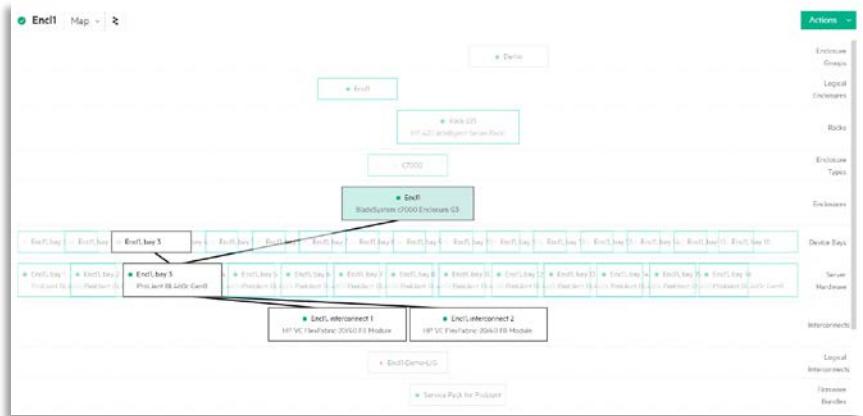
OR

This screenshot shows the same 'Enclosures' overview for 'Enclosure G3', but with a context menu open over the 'Map' button. The 'Map' option is highlighted with a red arrow in the menu. The rest of the interface is identical to the previous screenshot.

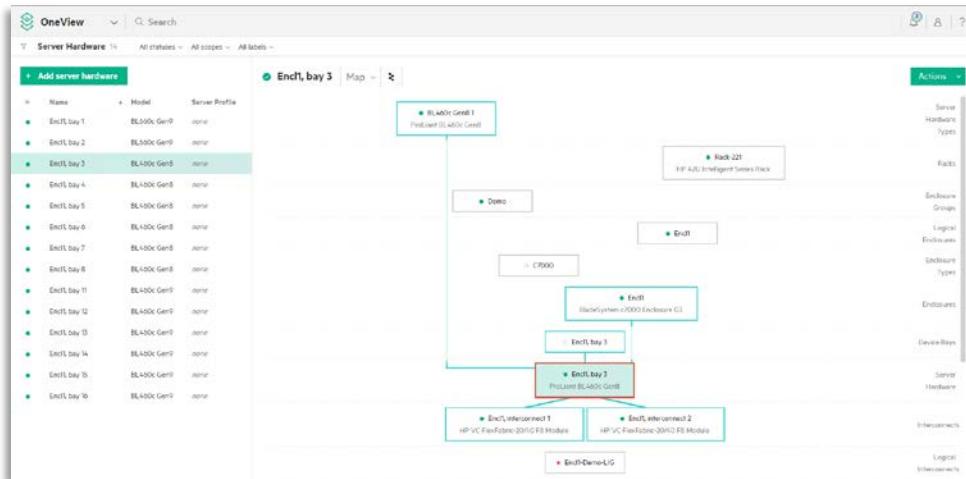
3. Within the Map view, hover over objects to see how the relationships are built. In the following example, observe the relationships shown when the **Enc1** Enclosure is selected. Clicking on an object will navigate you to that object's Map View. The resource with the light-blue color is the context of the current resource.



4. Hover over one of the servers from the Server Hardware objects and observe the relationships between the Enclosure, Server Hardware Type, and Interconnect Bays.



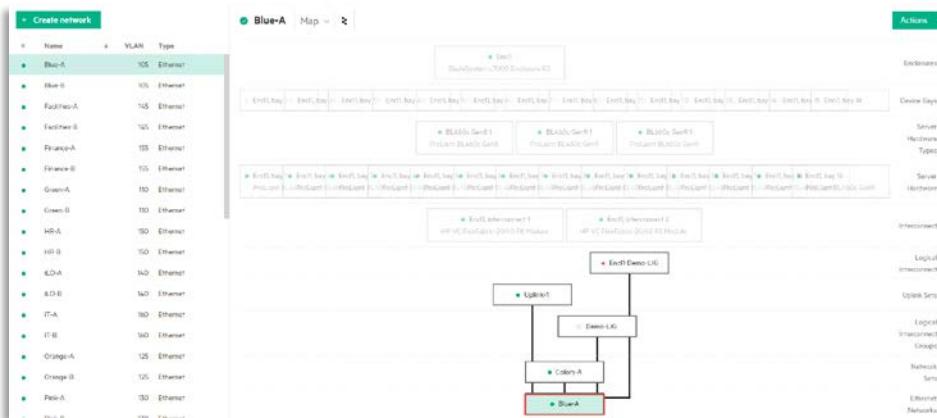
5. Select on one of the server objects, and Left-Click. The Map View will change to display the Map View with the server being the center object. Hover over the Server Hardware and notice the relationship shown.



6. Lastly, examine the Network relationships. Because the Server Profile haven't been assigned yet, the Network relationship to the server is not yet available. From the top level menu, select **Networks**.

The screenshot shows the HPE OneView interface with the 'NETWORKING' tab selected. Under the 'NETWORKING' tab, the 'Networks' option is highlighted with a red arrow. Other options include 'Network Sets', 'Logical Interconnect', 'Groups', 'Interconnects', 'Logical Switch Groups', and 'Switches'. The left sidebar lists categories like GENERAL, SERVERS, HYPERVISORS, and FACILITIES.

7. Select an available Network, and click the **Map View** button. Mouse over the network, and examine the relationship tree that is built.



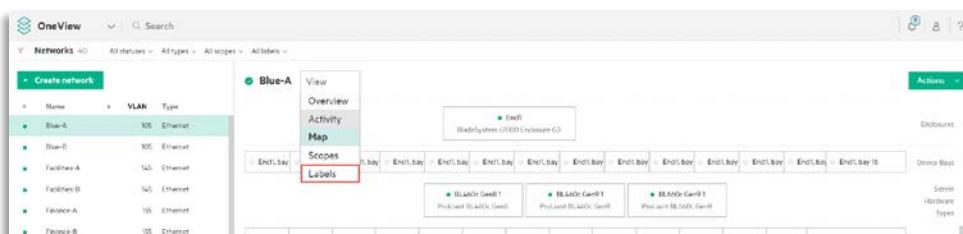
## Using Labels

Labels provide a way to classify, or group common resources for filtering or locating. Any resource can be assigned to one or more labels.

1. From the Top-Level Menu, select a resource, for our example we will use the **Networks** category.

The screenshot shows the HPE OneView interface with the 'NETWORKING' tab selected. Under the 'NETWORKING' tab, the 'Networks' option is highlighted with a red arrow. Other options include 'Network Sets', 'Logical Interconnect', 'Groups', 'Interconnects', 'Logical Switch Groups', and 'Switches'. The left sidebar lists categories like GENERAL, SERVERS, HYPERVISORS, and FACILITIES.

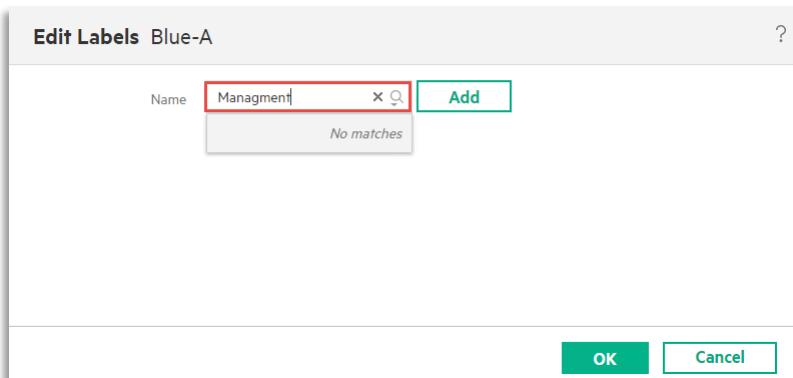
2. Select an item from the left-hand menu, then select **Labels** from the view selector menu.



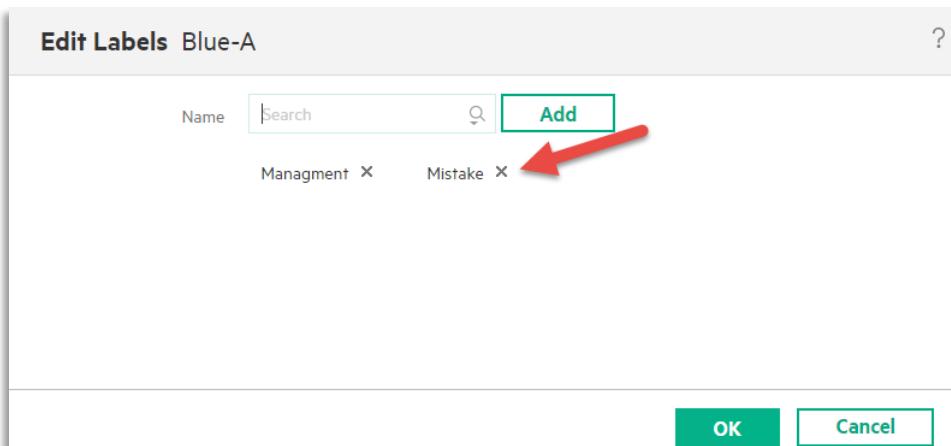
### 3. Select **Edit**



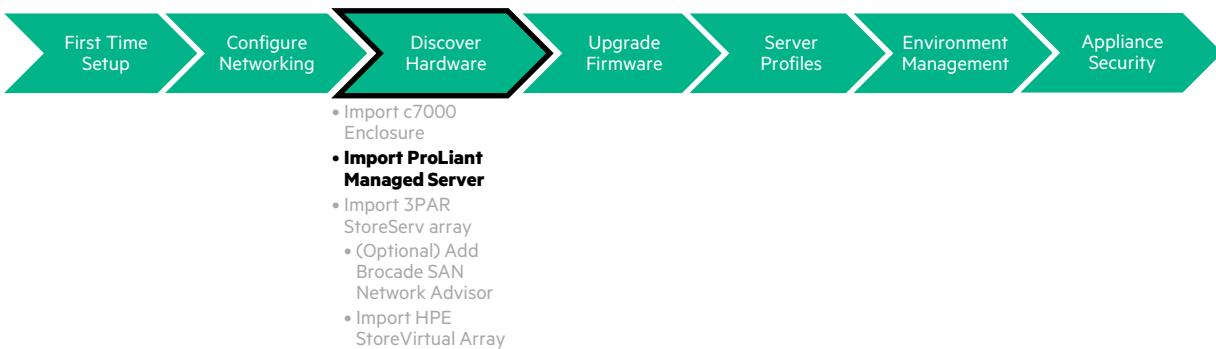
4. Specify the Label you wish to add. You can add one or more labels. Click the **OK** button to save your changes.



If you wish to delete a Label, click the **X** next to the label.



## Importing a ProLiant DL, ML or Apollo Managed Server



HPE OneView supports adding ProLiant DL Gen8 or newer, ML350 Gen9 or newer and Apollo Gen9 or newer servers for health, alert management and basic server profiles. In this section the example will show how to add a ProLiant DL Gen9 server by adding the iLO IP Address or FQDN.

- From the Top-Level Menu, select **Server Hardware**.

The screenshot shows the HPE OneView navigation menu. The 'Server Hardware' option under the 'Servers' category is highlighted with a red arrow. The menu includes sections for General, Servers, Hypervisors, Networking, Storage, and Facilities.

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	<b>Server Hardware</b>		Logical Switches		
	Types		Switches		

2. In the Server Hardware screen, click the **+Add Server Hardware** button.

The screenshot shows the 'Server Hardware' screen. The 'Add server hardware' button is highlighted with a red arrow. The interface displays a list of server bays and their details, along with utilization and port information.

3. In the Add Server Hardware screen, add the **iLO FQDN or IP Address** of the DL server to be added and select the radial button for a **Managed** server.

The screenshot shows the 'Add Server Hardware' dialog box. The 'iLO IP address or host name' field contains '172.18.6.31' and is highlighted with a red box. Below it, the 'Add server hardware as' section has two radio buttons: 'Managed' (selected) and 'Monitored'. A note below states: 'Managed server hardware requires an HPE OneView Advanced license to enable full configuration capabilities.' Another note below states: 'Monitored server hardware uses an HPE OneView Standard license that provides inventory and status information only. [Learn more...](#)'

4. Enter the iLO Administrator credentials

Add Server Hardware

iLO IP address or host name

Add server hardware as  Managed  Monitored

Credentials

User name  iLO user name with administrative privilege

Password

5. Select the license type to be applied to the server – *HPE OneView Advanced* or *HPE OneView Advanced w/o iLO*.

Add Server Hardware

iLO IP address or host name

Add server hardware as  Managed  Monitored

Credentials

User name

Password

General

Licensing  HPE OneView Advanced  HPE OneView Advanced w/o iLO [Learn more](#)

6. Click the **Add** button to add the DL server or select the **Add+** button to add other Managed DL servers.

Add Server Hardware

iLO IP addresses or host names

Add server hardware as  Managed  Monitored

Credentials

User name

Password

General

Licensing [Learn more](#)

HPE OneView Advanced  
31 licenses available

HPE OneView Advanced w/o iLO  
0 licenses available

 **Add** **Add+** **Cancel**

After clicking the **Add** button, HPE OneView will begin to discover the server, and configure the iLO for management.

The screenshot shows the HPE OneView interface with the title bar "OneView". Under "Server Hardware", it lists a server with IP 172.18.6.31. The Actions menu on the right is open, with "Power on" highlighted.

Once the server is added, the administrator has the capability of powering the server on, applying a server profile, or launch the **Remote Console** from the Actions menu.

The screenshot shows the HPE OneView interface with the title bar "OneView". Under "Server Hardware", it lists a server with IP 172.18.6.31. The Actions menu on the right is open, with "Power on" highlighted.

The server is now configured for element management by HPE OneView.

## Importing a ProLiant DL, ML, Apollo or SuperDomeX Monitored Server

HPE OneView supports adding a ProLiant DL G6 (Generation 6) or newer, ML Gen9 and Apollo 2000, 4000 and 6000 and SuperDomeX servers for hardware monitoring. In this section you will add a server for monitoring by adding the iLO IP Address or FQDN.

1. From the Top-Level Menu, select **Server Hardware**.

The screenshot shows the HPE OneView interface with the title bar "OneView". The "Server Hardware" option in the main menu is highlighted with a red arrow.

2. In the Server Hardware screen, click the **+Add Server Hardware** button.

The screenshot shows the HPE OneView interface. On the left, a list of server hardware components is displayed, including Encl1, bay 1 through Encl1, bay 16. Encl1, bay 3 is selected and shown in detail on the right. The details include the server profile (BL460c Gen9), server power (Off), model (ProLiant BL460c Gen9), and various utilization metrics like CPU, Power, and Temperature. Below the main details, there is a section for ports.

3. In the Add Server Hardware screen, add the iLO FQDN or IP Address of the DL server to be added and select **Monitored** for the license model.

### Add Server Hardware

iLO IP address or host name  ?

Add server hardware as  Managed  Monitored

Managed server hardware requires an HPE OneView Advanced license to enable full configuration capabilities.

Monitored server hardware uses an HPE OneView Standard license that provides inventory and status information only. [Learn more...](#)

4. Enter the iLO Administrator credentials.

### Add Server Hardware

iLO IP address or host name  ?

Add server hardware as  Managed  Monitored

---

Credentials

User name	<input type="text" value="dcs"/>
Password	<input type="password" value="..."/>

5. Click the **Add** button to add the DL server or select the **Add+** button to add other servers.

ILO IP address or host name: 172.18.6.32

Add server hardware as:  Monitored

Credentials

User name: dcs

Password: \*\*\*

Changed: Password

**Add** **Add +** **Cancel**

6. The server is now ready for hardware monitoring via HPE OneView

172.18.6.32 Overview Actions

● Add Completed 1m8s Administrator 5/24/16 12:44:58 pm

**Hardware >**

State	Monitored
Server profile	n/a
Server power	Off
Model	ProLiant DL380p Gen8
Server hardware type	DL380p Gen8
Serial number	MX091020307
License	HPE OneView Standard
iLO address	172.18.6.32
Location	and 1 additional Rack-221

**Utilization >**

This server hardware uses an HPE OneView Standard license. To view utilization data, add an iLO Advanced license key to the iLO. [Learn more](#)

**Ports >**

Port information is not collected for rack mount servers

## Importing a Range of Servers as Managed Devices

HPE OneView now supports adding a range of iLO addresses to import large numbers of servers simultaneously.

- From the Top-Level Menu, select **Server Hardware**.

The screenshot shows the HPE OneView navigation menu. The 'Server Hardware' option under the 'Servers' category is highlighted with a red arrow. The menu categories include GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under SERVERS, there are sub-options like Server Profiles, Hypervisor Cluster Profiles, Networks, Volumes, Data Centers, Activity, Server Profile Templates, Hypervisor Profiles, Network Sets, Volume Templates, Racks, Firmware Bundles, Enclosure Groups, Hypervisor Managers, Logical Interconnect Groups, Storage Pools, Power Delivery, Reports, Logical Enclosures, Interconnects, Storage Systems, Devices, Enclosures, SANs, Unmanaged Devices, Rack Managers, Logical Switch Groups, SAN Managers, Server Hardware, Logical Switches, and Types, Switches.

2. In the Server Hardware screen, click the **+Add Server Hardware** button.

The screenshot shows the 'Server Hardware' list screen. The '+ Add server hardware' button is highlighted with a red arrow. The screen includes search and filter options like 'All statuses', 'All resources', and 'All labels'. A note at the bottom says '0 matches out of 0'.

3. Enter the range of iLO IP addresses for the servers to be imported

The screenshot shows the 'Add Server Hardware' configuration screen. The 'iLO IP addresses or host names' field contains '172.18.6.1-172.18.6.10' and is highlighted with a red box. A tooltip explains: 'Enter a comma or newline separated list of IP addresses, ranges, or hostnames of rack mount servers' management processors.'

4. Select the **Managed** radial button to import the above referenced servers with an OneView Advanced license.

The screenshot shows the 'Add Server Hardware' configuration screen. The 'iLO IP addresses or host names' field contains '172.18.6.1-172.18.6.10'. Below it, the 'Add server hardware as' section shows two radio buttons: 'Managed' (selected) and 'Monitored'. A red arrow points to the 'Managed' button.

5. Enter the iLO credentials for the servers to be imported

Add Server Hardware

iLO IP addresses or host names  
172.18.6.1-172.18.6.10

Add server hardware as  Managed  Monitored

Credentials

User name

Password

6. Select the appropriate license type using the radial buttons for the servers to be imported.

Add Server Hardware

iLO IP addresses or host names  
172.18.6.1-172.18.6.10

Add server hardware as  Managed  Monitored

Credentials

User name

Password

General

Licensing [Learn more](#)

HPE OneView Advanced  
31 licenses available

HPE OneView Advanced w/o iLO  
0 licenses available

7. Click **Add** to begin importing the servers

ILO IP addresses or host names: 172.18.6.1-172.18.6.10

Add server hardware as:  Managed  Monitored

Credentials

User name: Administrator

Password: \*\*\*\*\*

Licensing: [Learn more](#)

HPE OneView Advanced  
31 licenses available

HPE OneView Advanced w/o ILO  
0 licenses available

Changed: Licensing to 'HPE OneView AdvancedSelect for server hard...' Add Add + Cancel

## Importing a Range of Servers as Monitored Devices

HPE OneView now supports adding a range of iLO addresses to import large numbers of servers simultaneously.

- From the Top-Level Menu, select **Server Hardware**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups		
	<b>Server Hardware</b>		Logical Switches		
	Types		Switches		

- In the Server Hardware screen, click the **+Add Server Hardware** button.

Server Hardware 0 All statuses ▾ All resources ▾ All labels ▾ 0 matches out of 0

+ Add server hardware

Name	Server Name	Server Profile	Model
No server hardware			

- Enter the range of iLO IP addresses for the servers to be imported

Add Server Hardware

iLO IP addresses or host names

Enter a comma or newline separated list of IP addresses, ranges, or hostnames of rack mount servers' management processors.

4. Select the **Monitored** radial button to import the above referenced servers with an OneView Advanced license.

Add Server Hardware

iLO IP addresses or host names

Add server hardware as  Managed  Monitored

5. Enter the iLO credentials for the servers to be imported

Add Server Hardware

iLO IP addresses or host names

Add server hardware as  Managed  Monitored

Credentials

User name

Password

6. Click **Add** to begin importing the servers

Add Server Hardware

iLO IP addresses or host names  
172.18.6.1-172.18.6.10

Add server hardware as  Managed  Monitored

Credentials

User name dcs

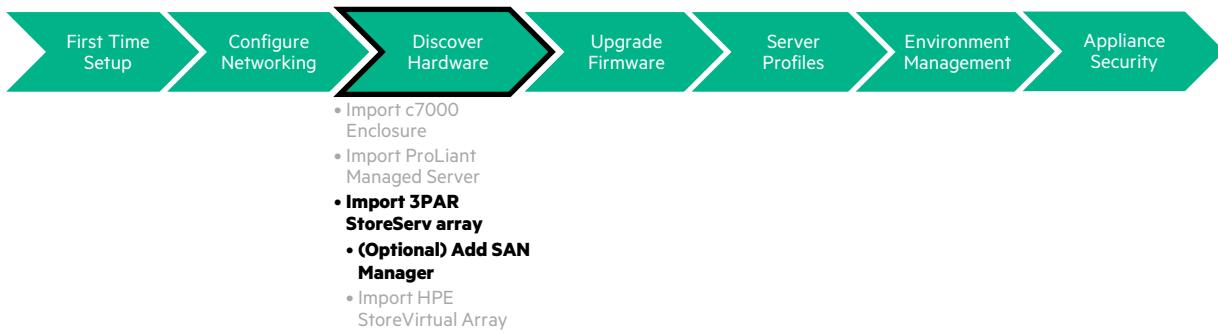
Password \*\*\*

Changed: Add server hardware as to "Monitored"

**Add** Add + Cancel



## Adding HPE 3PAR StoreServ System



HPE OneView supports server profile driven volume provisioning and access configuration using 3PAR storage systems and direct attach or Brocade, HPE or Cisco fabric attach SANs. In this section you will import 1 or more 3PAR storage systems that are already initialized, have existing CPG's, and any Virtual Domains<sup>5</sup> configured. Additionally, 1 or more SAN Managers are required to discover, monitor, view and perform automated zoning of SANs. SAN Managers to Brocade, HPE or Cisco SAN fabrics must be created explicitly, while SAN Managers to direct attach SANs are created automatically when Logical Interconnects are configured containing direct attach networks. For Brocade SANs, Brocade SAN Network Advisor (BNA)

<sup>5</sup> HPE 3PAR Virtual Domains are a licensed feature.

must be installed and available to be configured as a **SAN Manager**. For HPE and Cisco SANs, the SAN Manager communicates directly with one of the physical switches in the SAN.

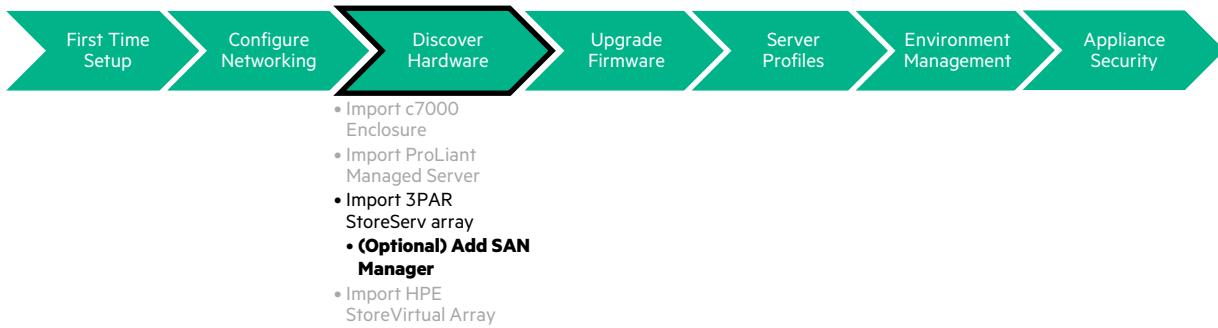
Prior to continuing with this document, please make sure you have completed the following:

## HPE OneView Import HPE 3PAR StoreServ Checklist

**Table 12.** HPE OneView Import HPE 3PAR StoreServ Checklist

Task	Completed? (Y N)
<b>Supported HPE 3PAR StoreServ system with the minimum firmware requirements.<sup>6</sup></b>	
<b>HPE 3PAR StoreServ Management FQDN/IP Address and administrator account with at least Create role in root.</b>	
<b>(Optional) Brocade SAN Network Advisor FQDN/IP, HPE or Cisco switch Address and credentials.</b>	

### (Optional) Add SAN Manager



Utilizing managed SANs will help align the HPE OneView defined Fibre Channel Networks, SAN Fabrics, and HPE 3PAR StoreServ storage system ports together. This provides a simplified way to guarantee storage system ports are connected on the expected HPE OneView managed FC Networks that will be assigned to Server Profiles.

When creating a SAN Manager to an HPN 5900 family or Cisco switch, only switches configured in FCF mode should be added. Any switch in NPV mode cannot be added as a SAN Manager. For more information regarding how to configure or setup an HPN 5900CP for FCF, please either review the sample switch configuration in [Appendix A](#), or review [Scenario 7](#) in the *FCoE Cookbook for HPE Virtual Connect* whitepaper<sup>7</sup>.

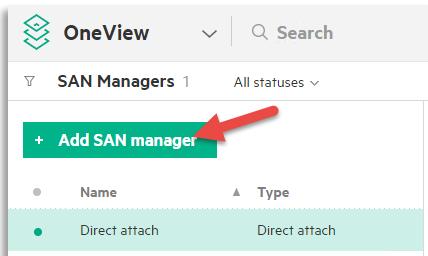
1. From the Top-Level Menu, select **SAN Managers**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Select **Add SAN Manager** button.

<sup>6</sup> Review [Supported Hardware](#) section for more details.

<sup>7</sup> <http://h20564.www2.hpe.com/hpsc/doc/public/display?docId=c03808925>



3. In the Add SAN Manager screen, select the SAN Manager type **Brocade Network Advisor** from the drop-down list.

The screenshot shows the 'Add SAN Manager' dialog box. At the top, there is a 'General' section with fields for 'IP address or host name' (empty) and 'Port' (set to 5989). Below this is a 'Credentials' section with 'User name' (Administrator) and 'Password' (empty). At the bottom, there are three buttons: 'Add' (green), 'Add +' (blue), and 'Cancel' (grey).

4. Enter the FQDN/IP Address, TCP Port (if different from the default SMI-S/WEBM over SSL 5989/TCP), and BNA login credentials for OneView to use when communicating with BNA. Then click the **Add** button or **Add+** button to add another SAN Manager.

Add SAN Manager

SAN manager type: Brocade Network Advisor

**General**

IP address or host name: **16.71.128.61**

Port: 5989

Use SSL

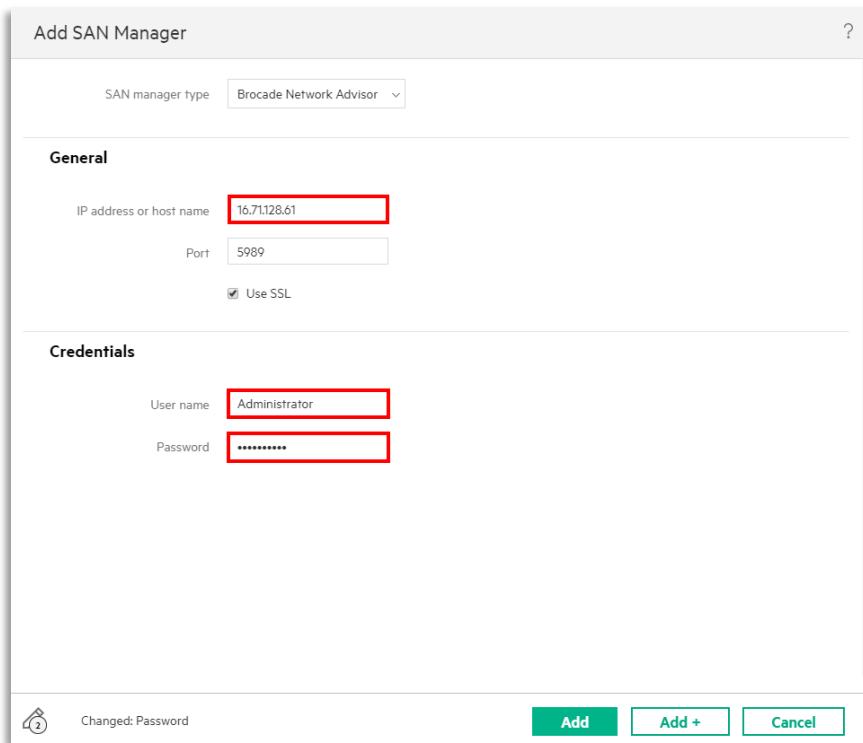
**Credentials**

User name: **Administrator**

Password: **\*\*\*\*\***

Changed: Password

Add Add + Cancel



5. After adding the BNA SAN Manager, OneView will discover manageable SAN Fabrics. To view the discovered SANs, click on the SAN Manager's **Used by** hyperlink.

OneView

SAN Managers 2 All statuses

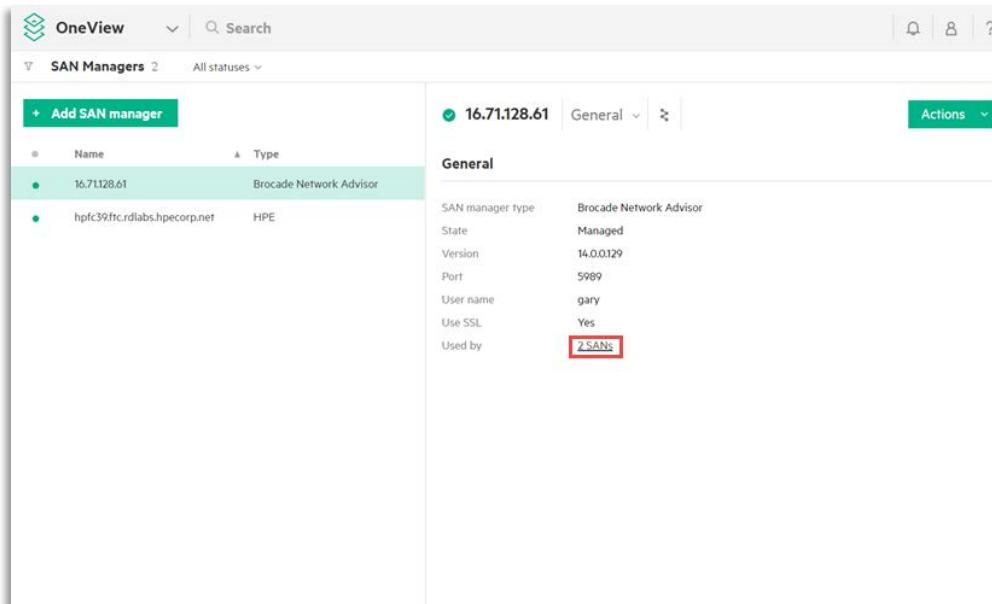
+ Add SAN manager

Name	Type
16.71.128.61	Brocade Network Advisor
hpfc39ffc.rdlabs.hpecorp.net	HPE

16.71.128.61 General Actions

**General**

SAN manager type	Brocade Network Advisor
State	Managed
Version	14.0.0.129
Port	5989
User name	gary
Use SSL	Yes
Used by	<b>2 SANs</b>



The screenshot shows the HPE OneView interface with the search bar set to "deviceManagerName:16.71.128.61". Under the "SANs" section, there are two entries: "BroSAN A" and "BroSAN B", both listed under the "All statuses" dropdown. Both entries have the IP address "16.71.128.61" and are in the "Discovered" state. The "Actions" dropdown is visible next to each entry.

6. Automated Zoning is not enabled yet, as the discovered SANs will need to be associated with an HPE OneView Fibre Channel Network in order to become Managed. The following section will cover associating networks & SANs in detail.

#### Add HPN 5900 family SAN Manager

1. In the Add SAN Manager screen, select **HPE** as the SAN Manager Type drop down list, provide the FQDN/IP Address of an **FCF** mode switch in the SAN, TCP Port (SNMP Port), SSH credentials and SNMPv3 password to authenticate. Then click the **Add** button, or **Add+** button to add another SAN Manager

**Add SAN Manager**

SAN manager type: **HPE**

**General**

IP address or host name: **hpfc39.ftc.rdlabs.hpecorp**

**SNMP**

SNMP port: **161**

User name: **admin**

Security level:  Authentication  None  Authentication and privacy

Authentication protocol: **SHA**

Authentication password: **\*\*\*\*\***

Changed: Authentication password

**Add** **Add +** **Cancel**

#### Add Cisco Nexus/MDS SAN Manager

1. In the Add SAN Manager screen, select **Cisco** as the SAN Manager Type in the drop-down list, provide the FQDN/IP Address of an **FCF** mode switch in the SAN, TCP Port (SNMP Port), SSH credentials and SNMPv3 to authenticate. Then click the **Add** button, or **Add+** button to add another SAN Manager

Add SAN Manager

SAN manager type **Cisco**

**General**

IP address or host name **cisco77fcrdlabs.hpecor1**

**SNMP**

SNMP port **161**

User name **admin**

Security level **Authentication**

Authentication protocol **SHA**

Authentication password **\*\*\*\*\***

Changed: Authentication password

Add Add + Cancel

### Modify SAN Protocols and Zoning Policy

After SANs are discovered, the storage administrator can change the storage protocols supported on the SAN (only required when they could not be detected) and how HPE OneView will perform auto-zoning on the SAN.

- From the Actions menu, select **Edit**

OneView deviceManagerName:16.71.128.61

SANs 2 All statuses 16.71.128.61 All states All labels Reset 2 matches out of 7

Name	SAN Manager	State
BroSAN A	16.71.128.61	Discovered
BroSAN B	16.71.128.61	Discovered

**BroSAN A** General Actions Edit

**General**

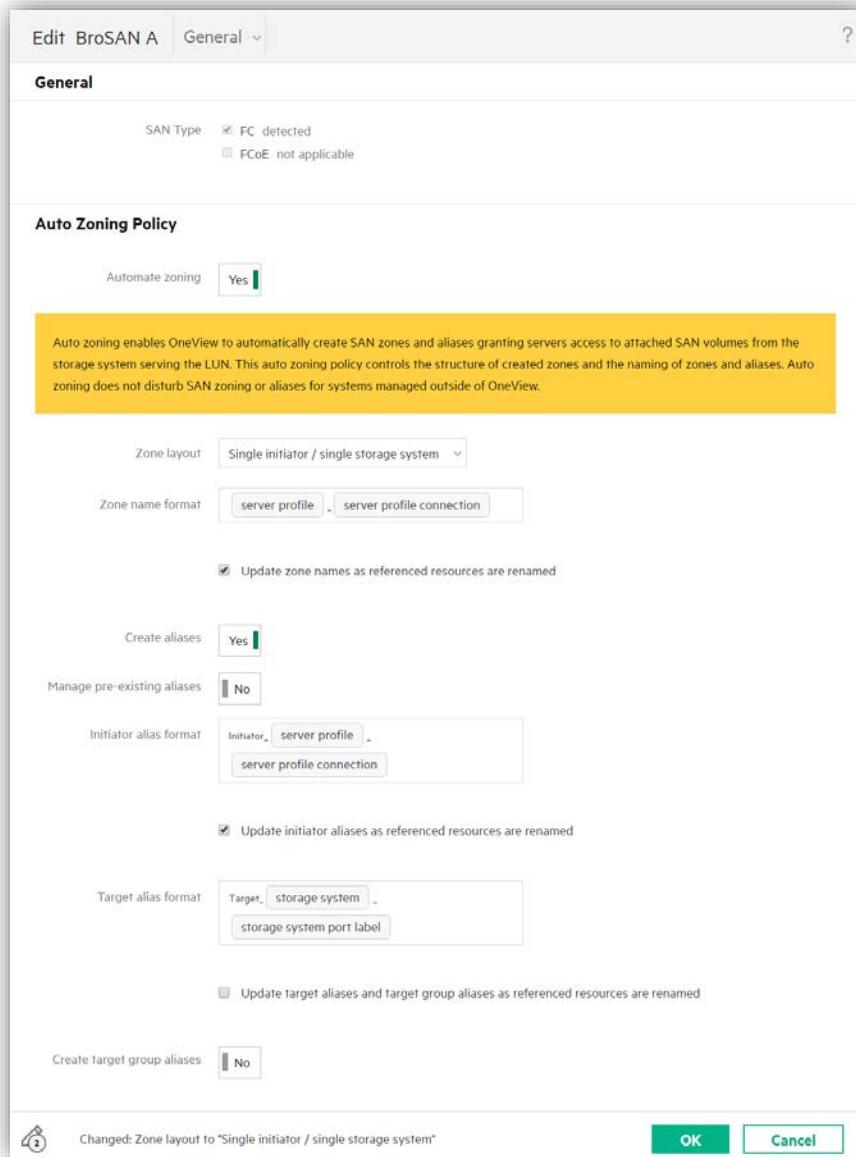
State Discovered  
Type FC  
Principal switch 10:00:00:27:F8:2E:EB:D7  
SAN manager 16.71.128.61  
Associated networks none

**Zoning Policy**

Zoned Yes  
Automate zoning Yes  
Zone layout Single initiator / all targets  
Zone name format server profile  
Zone names update when Yes resources are renamed

- Modify the protocols in use on the SAN (that could not be detected at the switch the SAN Manager is communicating with). Modify the Auto Zoning Policy that will be used on each SAN. You can edit each field and replace tokens (ex. {server\_profile}) with other pre-defined tokens or add other static

text that will be used to name the respective zones and aliases configured onto the SAN.



### Update Fibre Channel Networks

After adding a supported SAN Manager, the Fibre Channel Networks will need to be updated, so they are associated with the correct discovered SAN Fabrics.

1. From the Top-Level Menu, select **Networks**.

GENERAL	SERVERS	HYPERSVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	<b>Networks</b>	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Select the FC Network to be updated, then select **Edit** from the Actions Menu.

+ Create network		
Name	VLAN	Type
BroSAN A		FC
BroSAN B		FC
FlatSAN A		FC
FlatSAN B		FC
lablan	Untagged	Ethernet
vsan10 fc-fcoe		FC
vsan20 fc-fc		FC
vsan30 fcoe-fcoe	30	FCoE
vsan40 fcoe-fc	40	FCoE

✓ BroSAN A Overview 

**Actions**
  
Create
   
**Edit**
  
Delete

3. In the Associate with SAN drop down list, select the SAN discovered by your SAN Manager earlier, then select OK to save.

**Edit BroSAN A**

Name: BroSAN A

Type: Fibre Channel

Fabric type: Fabric attach

Associated SAN:

- 10000027F82EEBD6 16.71.128.61
- BroSAN A** **16.71.128.61**
- BroSAN B 16.71.128.61
- VSAN10 hpf39.ftc.rdlabs.hpecorp.net
- VSAN20 hpf39.ftc.rdlabs.hpecorp.net
- VSAN40 hpf39.ftc.rdlabs.hpecorp.net

Preferred bandwidth:

Maximum bandwidth:

Login redistribution:

Link stability interval: 30 seconds

OK Cancel

Associating a SAN with a network allows for automation of zoning on the network as well as end-to-end connectivity verification. [Learn more](#)

4. After updating the FC Network, examine the **Associate with SAN** and **SAN Manager** Properties in the **General** view.

The screenshot shows the OneView interface with the 'Networks' tab selected. On the left, a list of networks including 'BroSAN A', 'BroSAN B', 'FlatSAN A', 'FlatSAN B', 'iscsi-san', 'vsan10 A fc-fcoe', 'vsan20 B fc-fc', 'vsan30 A fcoe-fcoe', and 'vsan40 B fcoe-fc'. On the right, the 'BroSAN A' network details are shown in the 'General' tab. The 'SAN manager' field, which contains the value '16.71.128.61', is highlighted with a red box.

5. Clicking the Associated SAN, view that the SAN is now **managed**, that the SAN is a **zoned** SAN, and that automated **zoning** will be performed.

The screenshot shows the OneView interface with the 'SANS' tab selected. On the left, a list of SANs including '10000027F82EEBD6', 'BroSAN A', 'BroSAN B', 'CN754406WL\_interconnect\_3\_FlatSAN A', 'CN754406WL\_interconnect\_6\_FlatSAN B', 'VSAN1', 'VSAN10', 'VSAN20', 'VSAN30', and 'VSAN40'. On the right, the 'BroSAN A' SAN details are shown in the 'General' tab. The 'State' field, which is 'Managed', and the 'Zoned' field, which is 'Yes', are both highlighted with red boxes.

6. If desired, Automated Zoning can be disabled on a per SAN basis. If automated Zoning is **not** desired, select and **Edit the SAN**

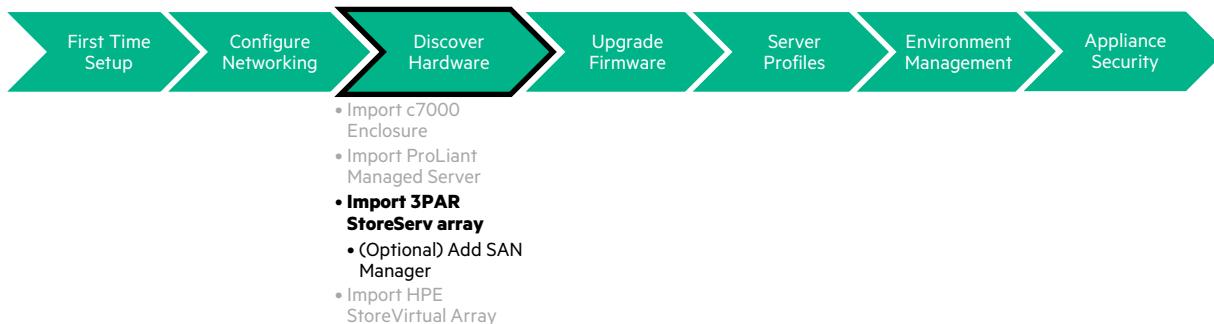
The screenshot shows the HPE OneView interface. On the left, there's a list of SANs: BroSAN A, BroSAN B, VSAN1, VSAN10, VSAN20, VSAN30, and VSAN40. BroSAN A is selected and highlighted with a red box. On the right, the details for BroSAN A are shown under the 'General' tab. A red arrow points to the 'Actions' dropdown menu, which includes options like 'Edit', 'Refresh', 'Download endpoints table', and 'Unexpected zoning report'. The 'Edit' option is currently selected.

7. Then click the option to Disable **Automated Zoning**

The screenshot shows the 'Edit BroSAN A General' dialog. Under the 'General' tab, the 'SAN Type' section shows 'FC detected' checked and 'FCoE not applicable' unchecked. In the 'Auto Zoning Policy' section, the 'Automate zoning' checkbox is set to 'No' and highlighted with a red box. A yellow warning message below states: "Disabling automation of zoning implies that the zoning will be performed manually. Until this SAN has been pre-zoned manually for the WWNs of the server hardware and/or the WWNs in the virtual ID pools, SAN volumes attached to server profiles will not be visible to those profiles." At the bottom, a status message says "Changed: Automate zoning to 'No'" and there are 'OK' and 'Cancel' buttons.

8. Repeat the same steps to update any additional FC Networks.

## Importing HPE 3PAR StoreServ System



- From the Top-Level Menu, select **Storage Systems**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Users and Groups
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- In the Storage Systems screen, click the **+Add storage system** button.

- Select the type of storage system to be imported using the drop down menu, select **StoreServ**.

- In the Add Storage System screen, add the **FQDN or IP Address** of the 3PAR storage system to be added, along with Administrator credentials. Click the **Connect** button to connect to the 3PAR storage system.

Add Storage System    Credentials    ?

Storage system type: StoreServ

IP address or host name: avon.ftc.rdlabs.hpecorp.net

**Credentials**

User name: 3paradm  
Password: \*\*\*\*\*

**Connect**

5. Once connected to the storage system, select the storage domain from the drop-down box if needed

Add Storage System    Credentials    ?

Storage system type: StoreServ

IP address or host name: avon.ftc.rdlabs.hpecorp.net

**Credentials**

User name: 3paradm  
Password: \*\*\*\*\*

**General**

Name: avon  
Model: HPE\_3PAR 7400  
Serial number: 1610773  
Storage domain: Search Q  
None    no domain  
GaryDomain  
CookeDomain  
Lab  
ChoAvon

To select storage pools, choose a domain

6. Once the storage domain is selected the storage domain's CPG's will be discovered and made available to be managed as storage pools.

Add Storage System | Credentials | ?

Storage system type: StoreServ

IP address or host name: avon.ftc.rdlabs.hpecorp.net

**Credentials**

User name: 3paradm

Password: \*\*\*\*\*

**General**

Name: avon

Model: HPE\_3PAR 7400

Serial number: 1610773

Storage domain: GaryDomain

**Storage Pools**

Name	Drive Type	Capacity	RAID	Manage
fast-ssd-cpg	SSD	912.00 GiB	RAIDS5	<input type="checkbox"/>
garycpg	FC	6.95 TiB	RAID1	<input type="checkbox"/>
GaryCPG-1TMax-200kWarn	FC	1.00 TiB	RAID1	<input type="checkbox"/>

7. Select the **Manage** checkbox next to the storage pool(s) to be managed or use the **Select all / Deselect all** buttons to select or deselect all of the storage pools.

Name	Drive Type	Capacity	RAID	Manage
fast-ssd-cpg	SSD	912.00 GiB	RAID5	<input checked="" type="checkbox"/>
garycpg	FC	6.95 TiB	RAID1	<input checked="" type="checkbox"/>
GaryCPG-1TMax-200kWarn	FC	1.00 TiB	RAID1	<input checked="" type="checkbox"/>

#### Assigning FC SANs/Networks to 3PAR Storage System Host Ports

8. When adding SAN volume attachments to server profiles, only storage system ports on networks to which the profile has connections can be configured for storage paths by HPE OneView. HPE OneView uses the storage system port according to its **Expected SAN/Network** field setting.

On the Storage System Ports section of the *Add storage system* screen, set each port's **Expected SAN/Network** value to the SAN or Network which is connected to the storage system port. Ports whose connectivity is detected on a managed SAN will already have its **Expected SAN/Network** value set. Ports whose connectivity cannot be detected on a managed SAN will have their **Expected SAN/Network** value set to **Auto**, which will cause the port's value to be set to the first managed SAN on which the port is detected. When a port is connected to an unmanaged network, it will need its **Expected SAN/Network** value to be set manually to an unassociated Network.

Any storage system port which you do not want HPE OneView to configure storage access through, such as HPE StoreServ federation or replication ports, should be set to **None**.

Repeat the process for the various ports on the storage system.

Add Storage System | Storage System Ports | ?

### Storage System Ports

Port	Label	Protocol	Expected SAN/Network	Actual SAN	Port Group	Partner Port
0:1:1	Brocade-A-13	FC	BroSAN A	BroSAN A	G1	1:1:1
0:1:2	Brocade-B-27	FC	BroSAN B	BroSAN B	G1	1:1:2
0:2:2	vsan40-31	FC	VSAN40	VSAN40	Auto	1:2:2
0:2:3	s12005-3-Q4:1	FC	CN754406WL, interconnect 3_FlatSAN A	CN754406WL, interconnect 3_FlatSAN A	Auto	1:2:3
0:2:4	vsan20-29	FC	VSAN20	VSAN20	Auto	1:2:4
1:1:1	Brocade-A-14	FC	BroSAN A	BroSAN A	G2	0:1:1
1:1:2	Brocade-B-28	FC	BroSAN B	BroSAN B	G2	0:1:2
1:2:2	vsan40-32	FC	VSAN40	VSAN40	Auto	0:2:2
1:2:3	s12005-3-Q5:1	FC	CN754406WL, interconnect 3_FlatSAN A	CN754406WL, interconnect 3_FlatSAN A	Auto	0:2:3
1:2:4	vsan20-30	FC	VSAN20	VSAN20	Auto	0:2:4
2:1:1	Bro A-18 FED	FC	None	BroSAN A	Auto	3:1:1
2:1:2	s12005-6-Q4:1	FC	CN754406WL, interconnect 6_FlatSAN B	CN754406WL, interconnect 6_FlatSAN B	Auto	3:1:2
2:2:1	vsan10-10	FCoE	VSAN10	VSAN10	Auto	3:2:1
2:2:2	vsan30-12	FCoE	VSAN30	VSAN30	Auto	3:2:2
3:1:1	Bro B-32 FED	FC	None	BroSAN B	Auto	2:1:1
3:1:2	s12005-6-Q5:1	FC	Auto	CN754406WL, interconnect 6_FlatSAN B	Auto	2:1:2
			None	CN754406WL, interconnect 6_FlatSAN B		
3:2:1	vsan10-9	FCoE	BroSAN A 16.71.128.61	VSAN10	Auto	2:2:1
3:2:2	vsan30-11	FCoE	BroSAN B 16.71.128.61 CN754406WL, interconnect 3_FlatSAN A Direct attach CN754406WL, interconnect 6_FlatSAN B Direct attach	VSAN30	Auto	2:2:2

Changed: Storage domain to "GaryDomain"

Add Add + Cancel

### Creating Storage System Port Groups

When HPE OneView attaches a volume to a server, for each storage path, by default, HPE OneView configures all storage system ports connected to the SAN connecting the storage system to the server as storage targets. If the storage administrator wishes to partition the storage system ports into smaller groups to be configured to each server, then assign a group name to the ports to be configured together. When Port Groups are defined, HPE OneView will choose the least configured port group to attach volumes to a server, achieving a load balancing across the storage system's ports. In this example, only 1 storage target will be configured per storage path per server even though there are two possible targets each server data path could be configured to access.

In the example below, HPE StoreServ ports 0:1:1 and 1:1:1 are a persistent port pair, and since they are put in different port groups, HPE OneView will configure one or the other for each storage path on BroSAN A.

- Set the port Group names for each port as desired.

Add Storage System | Storage System Ports | ?

### Storage System Ports

Port	Label	Protocol	Expected SAN/Network	Actual SAN	Port Group	Partner Port	
0:1:1	Brocade-A-13	FC	BroSAN A	<input checked="" type="checkbox"/>	G1	<input checked="" type="checkbox"/>	1:1:1
0:1:2	Brocade-B-27	FC	BroSAN B	<input checked="" type="checkbox"/>	G1	<input checked="" type="checkbox"/>	1:1:2
0:2:2	vSAN40-31	FC	VSAN40	<input checked="" type="checkbox"/>	VSAN40	<input type="checkbox"/>	1:2:2
0:2:3	s12005-3-Q4:1	FC	CN754406WL, interco	<input checked="" type="checkbox"/>	CN754406WL, interconnect 3 FlatSAN A	<input type="checkbox"/>	1:2:3
0:2:4	vSAN20-29	FC	VSAN20	<input checked="" type="checkbox"/>	VSAN20	<input type="checkbox"/>	1:2:4
1:1:1	Brocade-A-14	FC	BroSAN A	<input checked="" type="checkbox"/>	G2	<input checked="" type="checkbox"/>	0:1:1
1:1:2	Brocade-B-28	FC	BroSAN B	<input checked="" type="checkbox"/>	G2	<input checked="" type="checkbox"/>	0:1:2
1:2:2	vSAN40-32	FC	VSAN40	<input checked="" type="checkbox"/>	VSAN40	<input type="checkbox"/>	0:2:2
1:2:3	s12005-3-Q5:1	FC	CN754406WL, interco	<input checked="" type="checkbox"/>	CN754406WL, interconnect 3 FlatSAN A	<input type="checkbox"/>	0:2:3
1:2:4	vSAN20-30	FC	VSAN20	<input checked="" type="checkbox"/>	VSAN20	<input type="checkbox"/>	0:2:4
2:1:1	Bro A-18 FED	FC	None	<input checked="" type="checkbox"/>	BroSAN A	<input type="checkbox"/>	3:1:1
2:1:2	s12005-6-Q4:1	FC	CN754406WL, interco	<input checked="" type="checkbox"/>	CN754406WL, interconnect 6 FlatSAN B	<input type="checkbox"/>	3:1:2
2:2:1	vSAN10-10	FCoE	VSAN10	<input checked="" type="checkbox"/>	VSAN10	<input type="checkbox"/>	3:2:1
2:2:2	vSAN30-12	FCoE	VSAN30	<input checked="" type="checkbox"/>	VSAN30	<input type="checkbox"/>	3:2:2
3:1:1	Bro B-32 FED	FC	None	<input checked="" type="checkbox"/>	BroSAN B	<input type="checkbox"/>	2:1:1
3:1:2	s12005-6-Q5:1	FC	CN754406WL, interco	<input checked="" type="checkbox"/>	CN754406WL, interconnect 6 FlatSAN B	<input type="checkbox"/>	2:1:2
3:2:1	vSAN10-9	FCoE	VSAN10	<input checked="" type="checkbox"/>	VSAN10	<input type="checkbox"/>	2:2:1
3:2:2	vSAN30-11	FCoE	VSAN30	<input checked="" type="checkbox"/>	VSAN30	<input type="checkbox"/>	2:2:2

Changed: Storage domain to "GaryDomain"

Add Add + Cancel

- From the Add Storage System page, click the **Add** button to add the storage system, or select the **Add+** button to add other storage systems.

**Add Storage System**

Storage system type: StoreServ

IP address or host name: **avon.ftc.rdlabs.hpecorp.net**

### Credentials

User name: 3paradm

Password: \*\*\*\*\*

### General

Name: avon

Model: HPE\_3PAR 7400

Serial number: 1610773

Storage domain: **GaryDomain**

Select all | Deselect all

### Storage Pools

Name	Drive Type	Capacity	RAID	Manage
fast-ssd-cpg	SSD	912.00 GiB	RAID5	<input checked="" type="checkbox"/>
garycpg	FC	6.95 TiB	RAID1	<input checked="" type="checkbox"/>
GaryCPG-1TMax-200kWarn	FC	1.00 TiB	RAID1	<input checked="" type="checkbox"/>

### Storage System Ports

Port	Label	Protocol	Expected SAN/Network	Actual SAN	Port Group	Partner Port
0:1:1	Brocade-A-13	FC	BroSAN A	BroSAN A	G1	1:1:1
0:1:2	Brocade-B-27	FC	BroSAN B	BroSAN B	G1	1:1:2

Changed: Storage domain to "GaryDomain"

Add | Add + | Cancel

## Examine Imported HPE 3PAR StoreServ System

After adding an HPE 3PAR StoreServ system, you can examine the details about the new resource.

- From the Storage Systems view, select the specific storage system in the resource list view.

Storage Systems

ThreePAR7200-4500

Actions

General

Utilization

Storage system capacity

Total: 90.00 TB  
Allocated: 0.00 TB  
Free: 90.00 TB

- Select **Storage System Ports** from the sub-menu.

The screenshot shows the 'Overview' tab selected in the left sidebar. The main content area displays storage system capacity metrics: Total 19.42 TiB, Allocated 3.07 TiB, and Free 16.35 TiB. Below these metrics, it shows 3 storage pools and no volumes.

3. Here, you can view the matched storage system host ports, and the associated FC Networks and/or SAN Manager Fabrics.

Port	Label	Protocol	Expected SAN/Network	Actual SAN	Port Group
0:1	Brocade-A-13	FC	BroSAN_A 16.71.128.61	BroSAN_A	Auto
0:12	Brocade-B-27	FC	BroSAN_B 16.71.128.61	BroSAN_B	Auto
0:2:2	vsan40-31	FC	VSAN40 hpfc39.ftc.rdlabs.hpecorp.net	VSAN40	Auto
0:2:3	s12005-3-Q4:1	FC	Auto	unknown	Auto
0:2:4	vsan20-29	FC	VSAN20 hpfc39.ftc.rdlabs.hpecorp.net	VSAN20	Auto
1:1:1	Brocade-A-14	FC	BroSAN_A 16.71.128.61	BroSAN_A	Auto
1:1:2	Brocade-B-28	FC	BroSAN_B 16.71.128.61	BroSAN_B	Auto
1:2:2	vsan40-32	FC	VSAN40 hpfc39.ftc.rdlabs.hpecorp.net	VSAN40	Auto
1:2:3	s12005-3-Q5:1	FC	Auto	unknown	Auto
1:2:4	vsan20-30	FC	VSAN20 hpfc39.ftc.rdlabs.hpecorp.net	VSAN20	Auto
2:1:1	Bro A-18 FREE	FC	None	BroSAN_A	Auto
2:1:2	s12005-6-Q4:1	FC	Auto	unknown	Auto
2:2:1	vsan10-10	FCoE	VSAN10 hpfc39.ftc.rdlabs.hpecorp.net	VSAN10	Auto
2:2:2	vsan30-12	FCoE	VSAN30 hpfc39.ftc.rdlabs.hpecorp.net	VSAN30	Auto
3:1:1	Bro B-32 FREE	FC	None	BroSAN_B	Auto
3:1:2	s12005-6-Q5:1	FC	Auto	unknown	Auto
3:2:1	vsan10-9	FCoE	VSAN10 hpfc39.ftc.rdlabs.hpecorp.net	VSAN10	Auto
3:2:2	vsan30-11	FCoE	VSAN30 hpfc39.ftc.rdlabs.hpecorp.net	VSAN30	Auto

## Import Existing StoreServ Volumes

HPE OneView can create new volumes but also allows existing volumes on the HPE 3PAR StoreServ array to be imported for attaching to servers in Server Profiles. The HPE 3PAR StoreServ Volume name will be required. Adding existing volumes can be performed as described below.

- From the Top-Level Menu, select **Volumes**.

The screenshot shows the HPE OneView interface with the 'Storage' section highlighted by a red arrow. The navigation bar includes sections for General, Servers, Hypervisors, Networking, Storage, and Facilities. Under the Storage section, 'Volumes' is selected.

2. Select **Add volume** from the Volumes view.

The screenshot shows the 'Volumes' view in HPE OneView. A red arrow points to the '+ Add volume' button in the top-left corner of the list area. The list itself is currently empty, showing 'No volumes'.

3. Select the **Storage System** form the drop-down list,

The screenshot shows the 'Add Volume' dialog box. A red arrow points to the 'Storage system' dropdown menu, which is open and displays several options. The option 'avon' is highlighted. A callout bubble indicates 'Select the storage system of this volume.'

4. Enter the name of the HPE 3PAR StoreServ volume to add. Optionally give it a description.

Add Volume

This action adds an existing volume to OneView. Once added, this volume must not be managed by any other applications.

Storage system	avon
Storage system volume name	boot-vol
Description	

Sharing    Private    Shared

Enter the name of the volume on the storage system.

5. Select if the volume will be a **Private or Shared** volume. Private volumes are restricted to only being attachable to at most one server at a time.

Add Volume

This action adds an existing volume to OneView. Once added, this volume must not be managed by any other applications.

Storage system	avon
Storage system volume name	boot-vol
Description	

Sharing    Private    Shared

6. Select the **Add** or **Add+** button to add the volume. After being added, the volume can be attached to a server via its server profile.

This action adds an existing volume to OneView. Once added, this volume must not be managed by any other applications.

Storage system: avon

Storage system volume name: boot-vol

Description:

Sharing:  Private  Shared

Changed: Storage system volume name to "boot-vol"

Add

Add +

Cancel

## Create Storage Volume Templates for StoreServ Volumes

Storage Volume Templates allow the Storage Administrator to specify a set of volume properties when creating multiple volumes or to enforce certain volume property settings when other admins are creating volumes. Storage Volume Templates are not required in order to provision Storage Volumes (unless the HPE OneView global storage setting to require a volume template is enabled – described later). Create a StoreServ volume template by selecting a StoreServ storage pool for the volume template to create volumes from. Create a storage volume template as follows.

- From the Top-Level Menu, select **Volume Templates**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- Click **Create volume template** button

The screenshot shows the 'Volume Templates' section of the HPE OneView interface. At the top, there are filters for 'All statuses' and 'All labels'. Below the header, there is a green button labeled '+ Create volume template' with a red arrow pointing to it. The main area displays a table with columns for 'Name', 'Pool', and 'Sharing'. A single row is visible with the text 'No volume templates'.

3. In the Create Volume Template screen, enter a **Name** for the Volume template and an optional description.

The screenshot shows the 'General' tab of the 'Create Volume Template' dialog. The 'Name' field is populated with 'Demo' and has a red box around it. The 'Description' field is empty. The tabs at the top are 'Create Volume Template' and 'General'.

4. Using the storage pool drop down list, select the **Storage pool** the volume template will create volumes from.

The screenshot shows the 'General' tab of the 'Create Volume Template' dialog. The 'Name' field is 'Demo'. The 'Storage pool' dropdown is open, showing a list of options: 'fast-ssd-cpg' (selected), 'FC\_r1', 'FC\_r5', and 'Gary13\_5VSA-MLPT-Pool'. A red arrow points to the dropdown menu. A tooltip on the right side of the dropdown provides information about selecting a storage pool.

5. Once the volume template's storage pool is selected, the volume template is populated with the volume properties that can be set on volumes created within the selected pool. HPE 3PAR StoreServ pools (shown below) support different properties than HPE StoreVirtual pools. Select the volume property settings as desired.

**Create Volume Template** General ?

**General**

Name: Demo

Description:

Storage pool: fast-ssd-cpg

**Volume Properties**

Capacity: 200.00 GiB

Sharing: Private (radio button selected)

**Advanced**

Provisioning: Thin

Enable deduplication: Checked (checkbox selected)

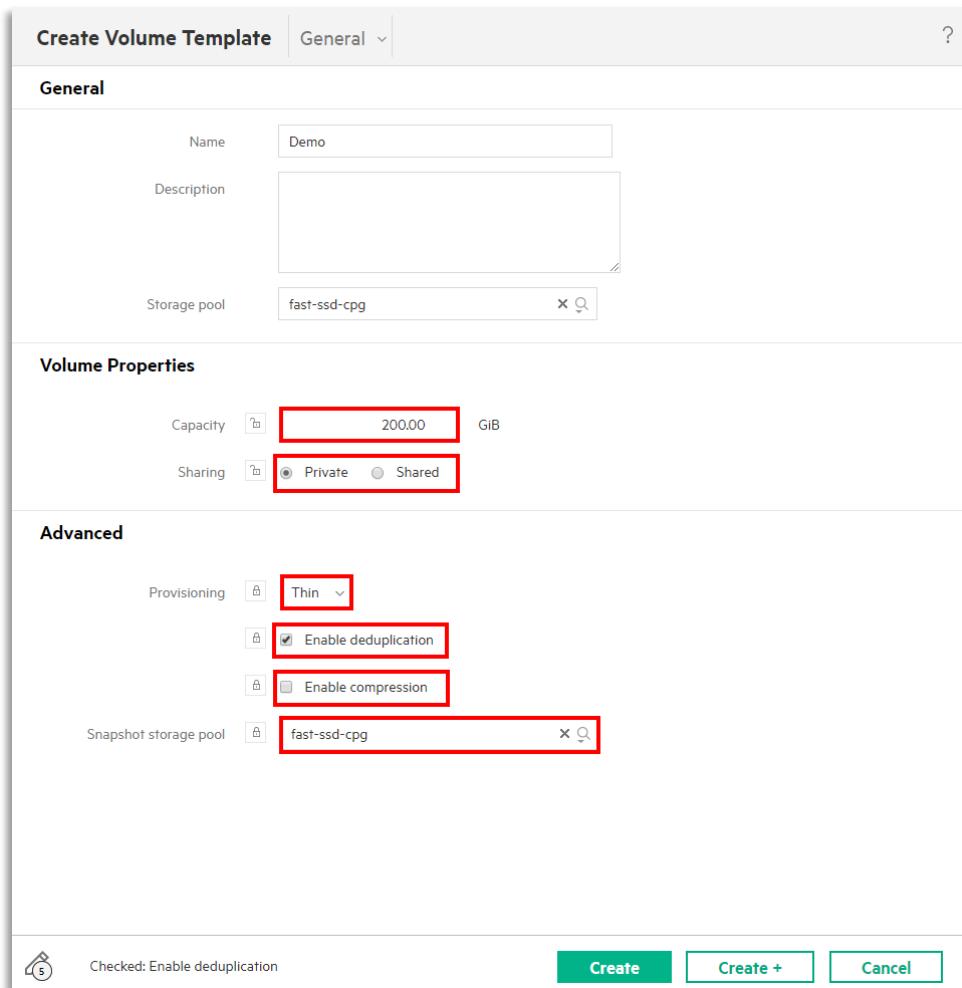
Enable compression: Unchecked (checkbox not selected)

Snapshot storage pool: fast-ssd-cpg

Checked: Enable deduplication

**Actions**

Create Create + Cancel



6. Next, select the enforcement mode for each volume property. Volume properties which are “locked” are not changeable when a volume is created using the template. Volume properties which are “unlocked” are changeable when a volume is created using the template.

**Create Volume Template** General ?

**General**

Name: Demo

Description:

Storage pool: fast-ssd-cpg

**Volume Properties**

Capacity: 200.00 GiB

Sharing: Private

**Advanced**

Provisioning: Thin

Enable deduplication:

Enable compression:

Snapshot storage pool: fast-ssd-cpg

Checked: Enable deduplication

**Buttons**

Create Create + Cancel

7. Then click the **Create** or **Create+** button to create the volume template.

**Create Volume Template** General ?

**General**

Name: Demo

Description:

Storage pool: fast-ssd-cpg

**Volume Properties**

Capacity: 200.00 GiB

Sharing: Private

**Advanced**

Provisioning: Thin

Enable deduplication

Enable compression

Snapshot storage pool: fast-ssd-cpg

Checked: Enable deduplication

**Create** **Create +** **Cancel**

8. (Optional) If the Storage administrator wants to require that non-storage administrators must use storage volume templates when creating volumes, the **Require template for Volume Creation** Global Policy needs to be set, which is in the **Settings** menu.

**OneView** ▾

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

**Settings**

9. In the Settings **Storage** section, click the **Edit** action.

The screenshot shows the 'Settings' page in HPE OneView. It includes sections for Appliance, Backup, Networking, Time and Locale, Proxy, Licenses, Security, Notifications, Scopes, Activity, SNMP, Addresses and Identifiers, Remote Support, Storage, and Repository. The Storage section is highlighted with a red arrow pointing to the 'Edit' button.

10. Click the toggle to start requiring a storage volume template whenever non-storage administrators create volumes. Click **OK** to apply the setting

The screenshot shows the 'Edit Storage' dialog box. It has a note: 'Changed: Require a template for volume creation to "Yes"' with a red exclamation mark icon. At the bottom are 'OK' and 'Cancel' buttons, with a red arrow pointing to the 'OK' button.

## Creating StoreServ Storage Volumes

Volumes can be created independent of server profiles within the **Volumes** view, under the Storage column of the Top-Level Menu within the UI or created as part of a server profile. When created using the Volumes view, the volume's lifecycle will be independent of server profiles (i.e. "permanent"). When created as part of a server profile, the volume's lifecycle can optionally be tied to the server profile (i.e. "non-permanent", also called "Ephemeral") such that when the server profile is deleted, the volume will be deleted as well.

Volumes can be created by either server or storage administrator roles.

- From the Top-Level Menu, select **Volumes**.

The screenshot shows the HPE OneView navigation bar. The 'STORAGE' section is highlighted with a red arrow pointing to the 'Volumes' link. Other links in the 'STORAGE' section include 'Volume Templates', 'Storage Pools', 'Storage Systems', 'SANs', 'SAN Managers', 'Logical Switch Groups', 'Logical Switches', and 'Switches'. The 'GENERAL', 'SERVERS', 'HYPERSOURCES', 'NETWORKING', and 'FACILITIES' sections are also visible.

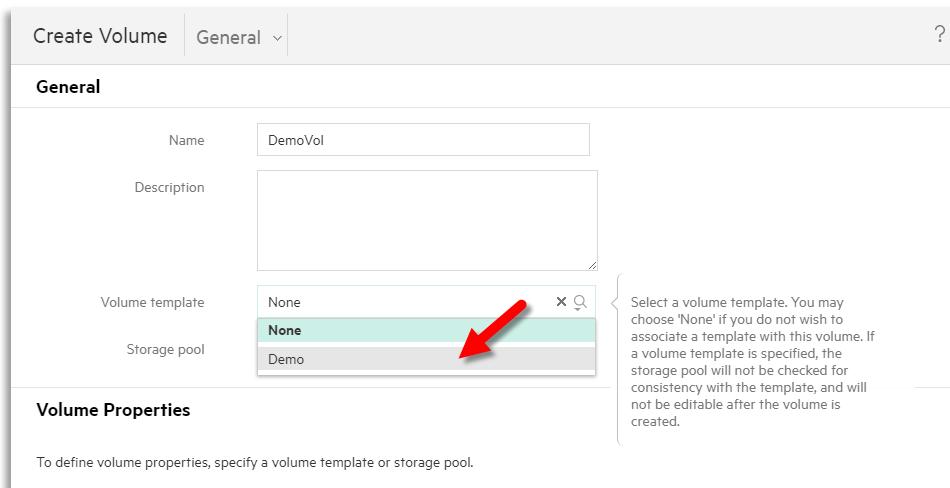
2. Click the **Create volume** button.

The screenshot shows the 'Volumes' list screen in HPE OneView. At the top left, there is a '+ Create volume' button highlighted with a red arrow. Below it is another button labeled '+ Add volume'. The main area displays a table with columns for Name, Capacity (GiB), Sharing, and Storage System. The table currently shows 'No volumes'.

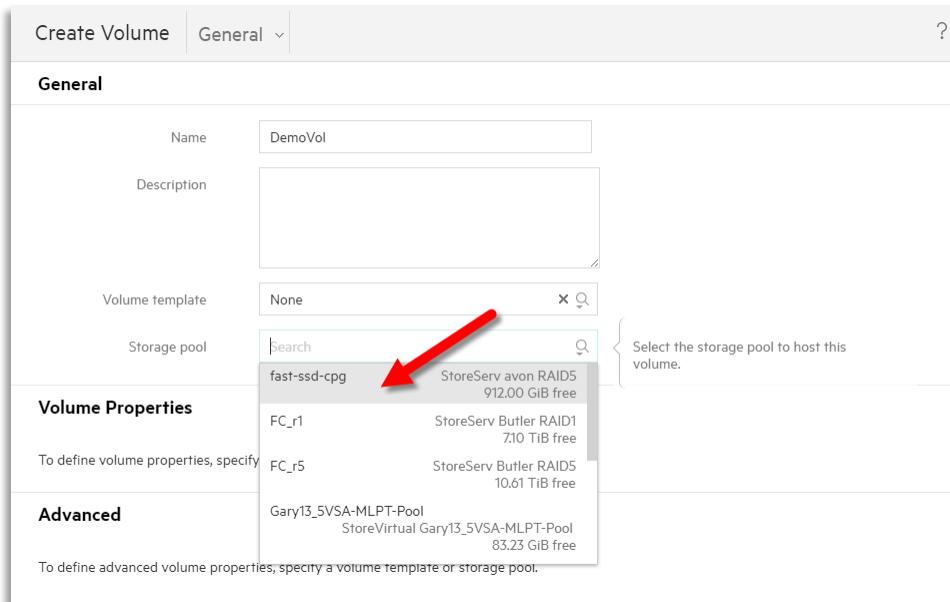
3. In the Create Volume screen, enter a **Name** and optionally a description for the volume.

The screenshot shows the 'Create Volume' dialog box. The 'General' tab is selected. The 'Name' field contains 'DemoVol' and is highlighted with a red box. The 'Description' field is empty. The 'Volume template' field shows 'None'. The 'Storage pool' field shows 'Search' with a search icon. A callout bubble next to the 'Storage pool' field says 'Select the storage pool to host this volume.'

4. In the Create Volume screen, the options can be restricted if the Storage Administrator has forced Volume Creation to be provisioned from a Volume Template. Otherwise, the administrator creating the **Volume** may choose whether it will be associated with an available Volume Template or not. When creating a volume from a volume template select the template.



5. If not associated with a volume template, select the **Storage Pool** for the volume



6. After selecting a volume template or storage pool, the Volume properties will be populated with the properties that can be set for the volume. HPE StoreServ storage pools allow different properties to be set on volumes than HPE StoreVirtual storage pools. Set the **volume properties** for the volume.

Create Volume General ?

**General**

Name: DemoVol

Description:

Volume template: None

Storage pool: fast-ssd-cpg

**Volume Properties**

Capacity: 45.00 GiB

Sharing:  Private  Shared

**Advanced**

Provisioning: Thin

Enable deduplication

Enable compression

Snapshot storage pool: fast-ssd-cpg

Checked: Enable deduplication

Create Create + Cancel

7. Click **Create** or **Create+** button to create the volume.

Create Volume | General ?

### General

Name	DemoVol
Description	
Volume template	None <input type="button" value="x"/> <input type="button" value="Q"/>
Storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>

### Volume Properties

Capacity	45.00 GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

### Advanced

Provisioning	Thin <input type="button" value="v"/>
<input checked="" type="checkbox"/> Enable deduplication	
<input type="checkbox"/> Enable compression	
Snapshot storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>

Checked: Enable deduplication

#### Note

When creating volumes, HPE OneView attempts to name volumes on the storage system as close as possible to volume names in HPE OneView. When the HPE OneView volume name is not a valid volume name on the storage system (unsupported characters, too long, already exists, etc.), HPE OneView will remove illegal characters, shorten and ensure the name is unique to create a legal name on the storage system. Any scripting communicating with both systems needs to be aware of this.

#### (Optional) Growing Volume Capacity

Growing a Volume or changing any other of its properties is performed by editing the volume. Grow the volume by increasing its capacity.

1. Select the **volume** from the left-hand menu

**DemoVol | General**

**General** [Edit](#)

Name	DemoVol
Capacity (GiB)	45.00
Sharing	Private
Storage System	avon

**Volume Properties**

Provisioned capacity	45.00 GiB
Allocated capacity	11.3 GiB
Sharing	Private
Lifecycle	Permanent

**Advanced**

Snapshot storage pool	fast-ssd-cpg
Provisioning	Thin
Deduplication	Enabled
Compression	Disabled
LUN WWN	60:00:2A:C0:00:00:00:01:00:05:FE:00:00:2A:15

**Snapshots**

No snapshots

## 2. Select **Edit** from the actions menu

**DemoVol | General**

**General** [Edit](#)

Name	DemoVol
Capacity (GiB)	45.00
Sharing	Private
Storage System	avon

**Volume Properties**

Provisioned capacity	45.00 GiB
Allocated capacity	11.3 GiB
Sharing	Private
Lifecycle	Permanent

**Advanced**

Snapshot storage pool	fast-ssd-cpg
Provisioning	Thin
Deduplication	Enabled
Compression	Disabled
LUN WWN	60:00:2A:C0:00:00:00:01:00:05:FE:00:00:2A:15

**Snapshots**

No snapshots

**Actions** [Edit](#)

- [Create](#)
- [Refresh](#)
- [Create snapshot](#)
- [Delete](#)

[https://15.116.4.79/#/storage-volumes/edit/r/rest/storage-volumes/52D6f4f4-9048-4538-A408-A8E401229CC1?\\_q=scope%3All\\_resources&f\\_sort=name%3Aasc](https://15.116.4.79/#/storage-volumes/edit/r/rest/storage-volumes/52D6f4f4-9048-4538-A408-A8E401229CC1?_q=scope%3All_resources&f_sort=name%3Aasc)

## 3. In the Edit dialog box, edit the **volume capacity**

Edit DemoVol General ?

**General**

Name	DemoVol
Description	
Volume template	None <input type="button" value="x"/> <input type="button" value="Q"/>
Storage pool	fast-ssd-cpg
Storage system	avon

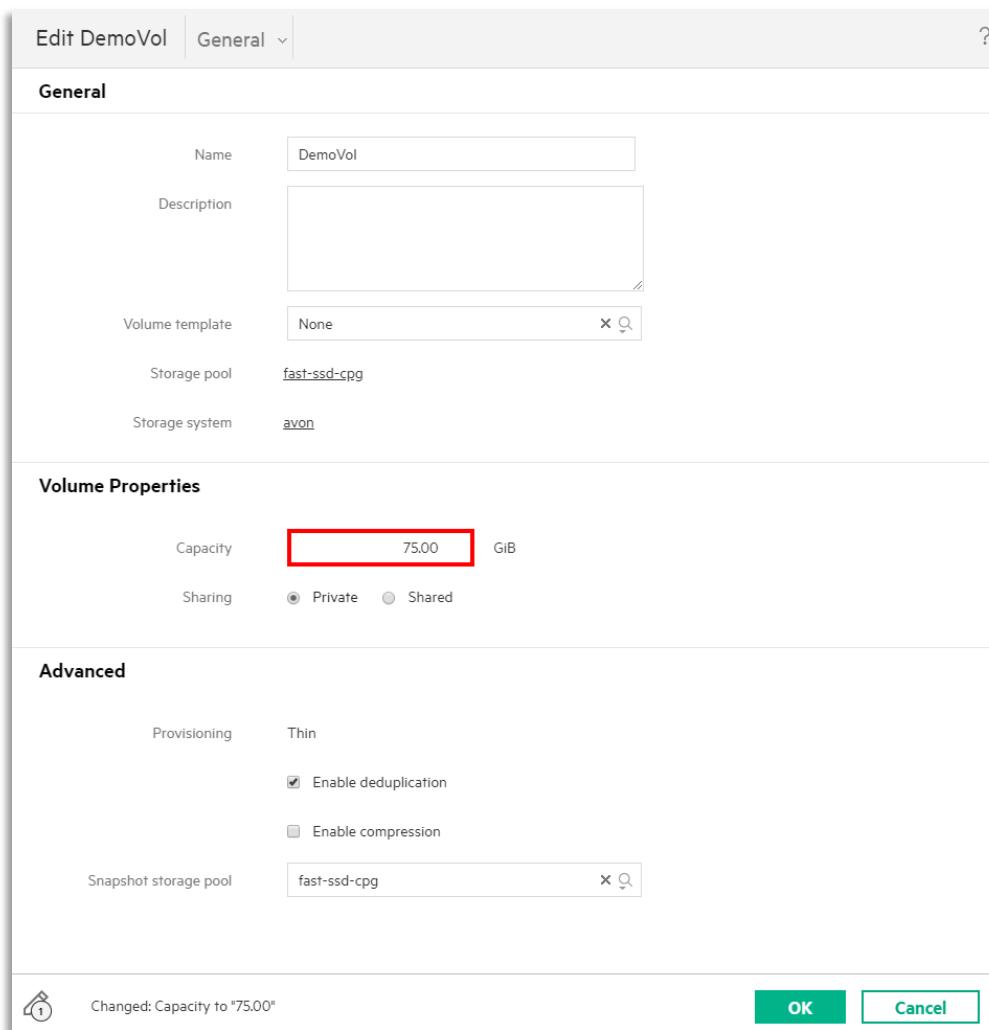
**Volume Properties**

Capacity	75.00 <input type="button" value="x"/> GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

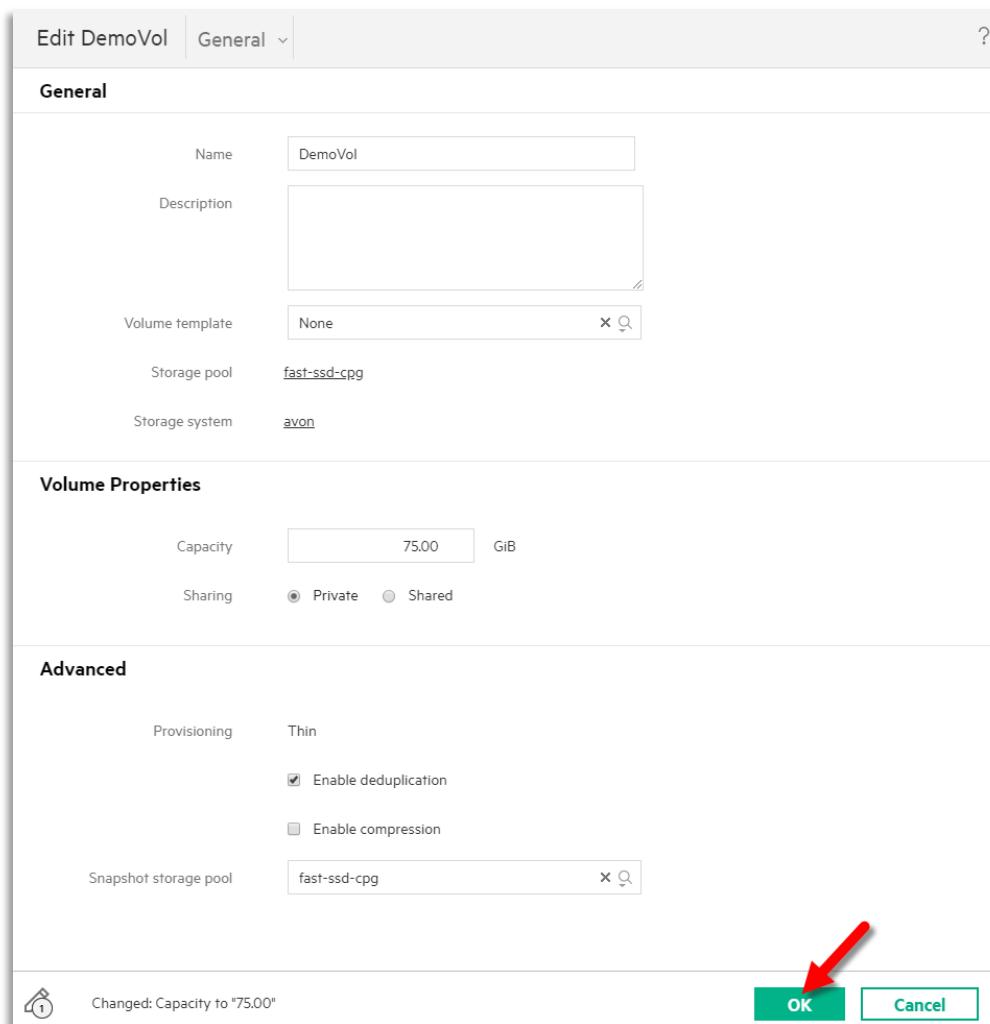
**Advanced**

Provisioning	Thin
<input checked="" type="checkbox"/> Enable deduplication	
<input type="checkbox"/> Enable compression	
Snapshot storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>

Changed: Capacity to "75.00"



4. Click **OK**.



## Enabling 3PAR Compression and using Large Volumes

Using volumes with 3PAR compression enabled or creating/growing volumes larger than 16 TiB in size (up to 64 TiB) is performed by creating or editing an existing volume and setting these properties.

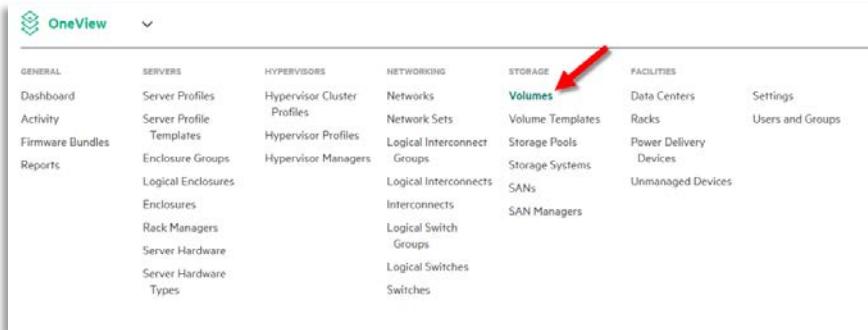
### Note

Volume compression and large volume sizes are only supported on 3PAR Storage Systems running 3.3.1 EGA or later.

Compression is only supported on Volumes created from Storage Pools with an SSD Drive type. When creating or modifying a Volume or Volume Template in a Storage Pool that does not support compression, the “Enable compression” volume setting will not appear.

Large Volumes are supported only on Volumes with compression and deduplication disabled.

1. From the Top-Level Menu, select **Volumes**.



## 2. Select the **volume** from the left-hand menu

This screenshot shows the 'Volumes' details page for a volume named 'DemoVol'. The volume has a capacity of 75.00 GiB, is private, and is associated with the 'avon' storage system. The 'Actions' menu at the top right shows options like Create, Refresh, Edit, Create snapshot, and Delete. A red arrow points to the 'Edit' option in the dropdown menu.

Name	Capacity (GiB)	Sharing	Storage System
DemoVol	75.00	Private	avon

**General**

- State: Managed
- Description: not set
- Volume template: none
- Storage system volume name: DemoVol
- Storage system: avon
- Storage pool: fast-ssd-cpg
- Used by: no server profiles, no server profile templates, no hypervisor cluster profiles

**Volume Properties**

- Provisioned capacity: 75.00 GiB
- Allocated capacity: 1.13 GiB
- Sharing: Private
- Lifecycle: Permanent

**Advanced**

- Snapshot storage pool: fast-ssd-cpg
- Provisioning: Thin
- Deduplication: Enabled
- Compression: Disabled
- LUN WWN: 60002A:C0000000000100:05FE:00002A:15

**Snapshots**

No snapshots

## 3. Select **Edit** from the actions menu

This screenshot shows the 'Volumes' details page for the 'DemoVol' volume. The 'Actions' menu is open, and the 'Edit' option is highlighted with a red arrow. The rest of the menu includes Create, Refresh, Create snapshot, and Delete.

Name	Capacity (GiB)	Sharing	Storage System
DemoVol	75.00	Private	avon

**General**

- State: Managed
- Description: not set
- Volume template: none
- Storage system volume name: DemoVol
- Storage system: avon
- Storage pool: fast-ssd-cpg
- Used by: no server profiles, no server profile templates, no hypervisor cluster profiles

**Volume Properties**

- Provisioned capacity: 75.00 GiB
- Allocated capacity: 1.13 GiB
- Sharing: Private
- Lifecycle: Permanent

**Advanced**

- Snapshot storage pool: fast-ssd-cpg
- Provisioning: Thin
- Deduplication: Enabled
- Compression: Disabled
- LUN WWN: 60002A:C0000000000100:05FE:00002A:15

**Snapshots**

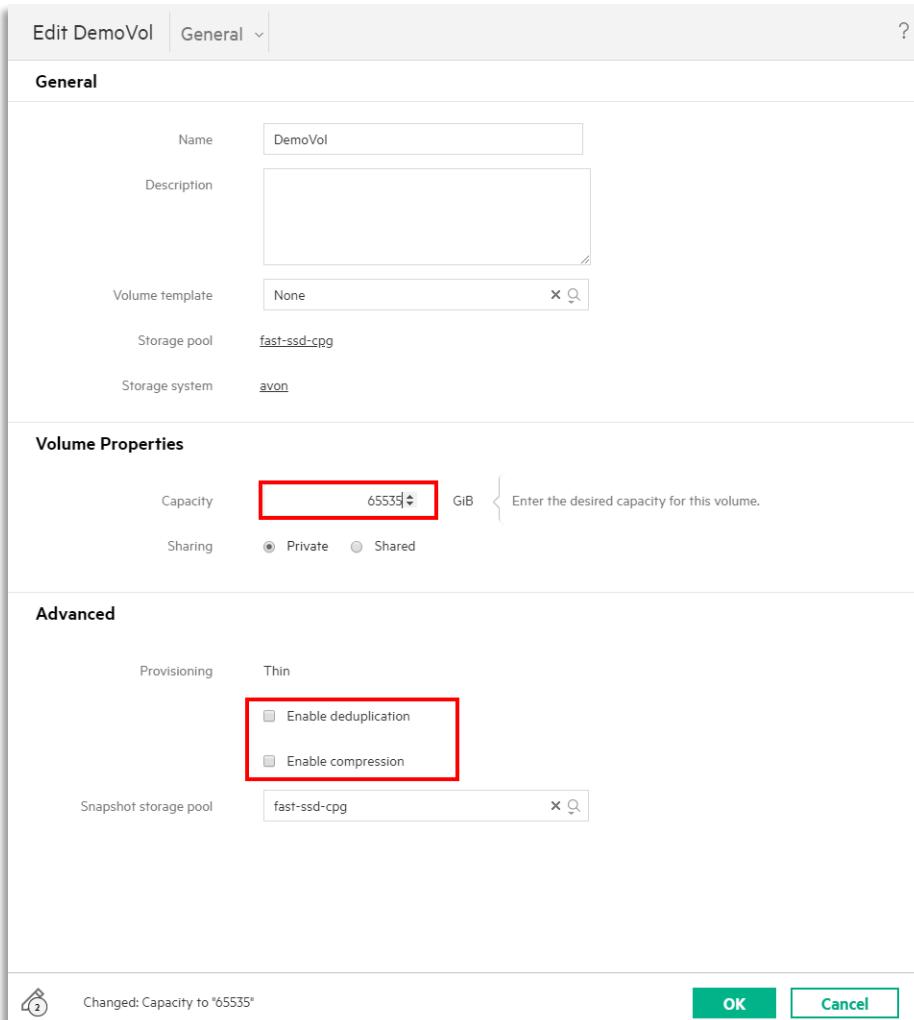
No snapshots

Actions

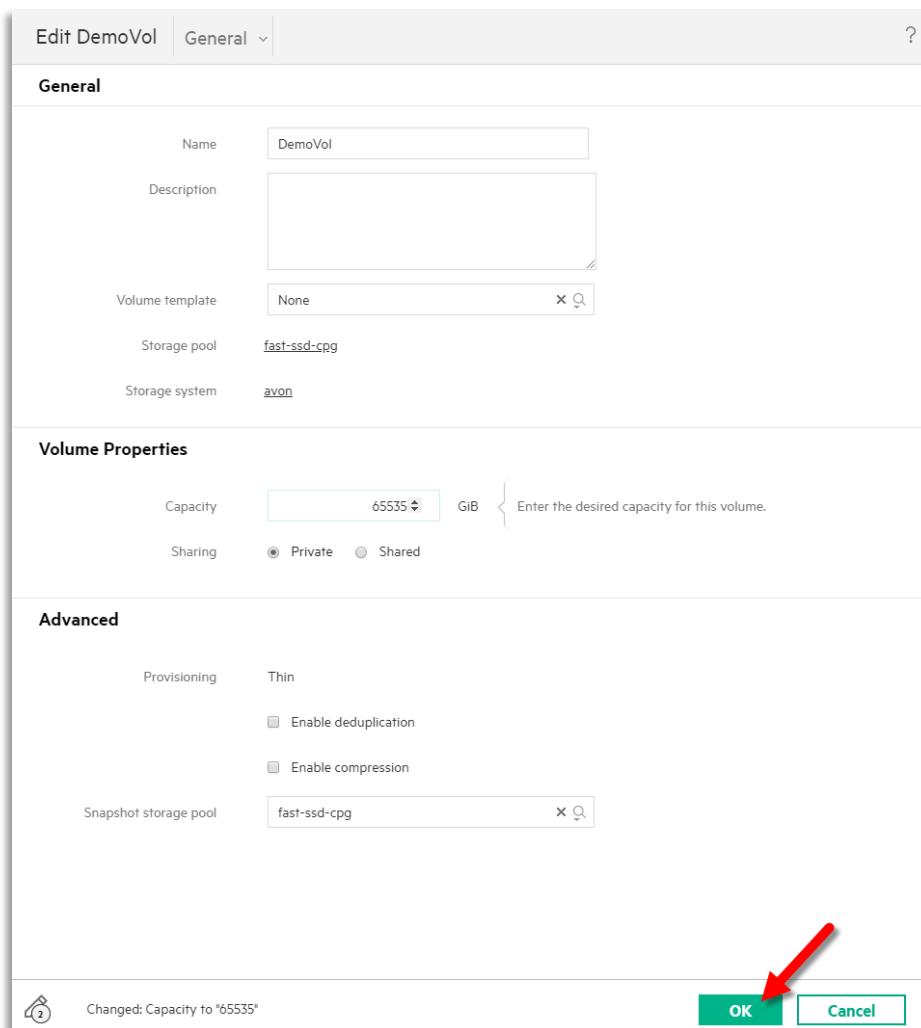
- Create
- Edit
- Refresh
- Create snapshot
- Delete

[https://15.116.4.79/#/storage-volumes/edit/r/nest/storage-volumes/52DE44-9048-4938-A488-AE8401229CC1?lq=scope%3All\\_resources&lq\\_sort=name%3Aasc](https://15.116.4.79/#/storage-volumes/edit/r/nest/storage-volumes/52DE44-9048-4938-A488-AE8401229CC1?lq=scope%3All_resources&lq_sort=name%3Aasc)

4. In the Edit dialog box, edit the **volume capacity** to a size up to 64 TiB. Note that deduplication and compression must be disabled.



5. Click **OK**.



## Brocade FC Interconnect Module SAN Storage Support

Server profiles can configure servers with managed SAN storage volume attachments connected through Brocade Fibre Channel (FC) Interconnect modules (ICMs) connected to external SANs connected to 3PAR storage. Brocade FC ICM's are unmanaged in OneView but can be managed in Brocade Network Advisor (BNA), letting the ICM be managed together with the other Brocade SAN switches. In this configuration, BNA is used to manage the ICM firmware, ports and monitor health; while OneView will manage the SAN zones and aliases and storage paths over these SANs.

To configure a server with managed SAN volume attachments in this configuration, perform the following.

1. Within c7000 enclosures, Brocade FC ICMs are inventoried, but not managed (shown below). Within Synergy enclosures, they are inventoried, monitored and only basic management functions can be performed on them. Note that these ICM's are identified by their serial number.

The screenshot shows the HPE OneView interface with the search bar set to 'Interconnects'. A list of interconnects is displayed on the left, with 'svt7011, interconnect 5' selected and highlighted with a red box. The main panel shows the 'svt7011, interconnect 5' details under 'General' and 'Hardware' tabs. The 'Hardware' tab includes fields for Product name (Brocade 16Gb/28c SAN Switch), Location (svt7011, Interconnect bay 5), Serial number (CN8446F01D), and Part number (C8S46A). The 'Serial number' field is also highlighted with a red box.

2. After being imported into BNA, BNA shows the ICM's associated with the SANs they are connected to.

The screenshot shows the 'View All - HPE B-series SAN Network Advisor 14.2.2' interface. The left pane displays a tree view of SAN components, including BroSAN A and BroSAN B, with specific nodes like VFC4CN8543000J and Bulova2-A highlighted with red boxes. The right pane shows a network diagram where Bulova2-A is connected to FID110. The 'Serial #' column in the table lists the serial numbers CN8446F01B and CN8446F01D, which are also highlighted with red boxes. The table columns include Name, Product Type, Serial #, State, Status, and WWN.

All Levels	Name	Product Type	Serial #	State	Status	WWN
10:00:00:27:F8:2E:EB:D6	10:00:00:27:F8:2E:EB:D6	10:00:00:27:F8:2E:EB:D6		Unknown	Healthy	
<b>BroSAN A</b>	BroSAN A	BroSAN A			Unknown	
VFC4CN8543000J	VFC4CN8543000J	Access Gate...	<b>CN8446F01B</b>	Online	Unknown	10:00:00:11:0A:00:DC:C9
Bulova2-A	Bulova2-A	Switch	<b>CN8446F01D</b>	Online	Healthy	10:00:50:EB:1A:68:1E:35
<b>FID110</b>	FID110	Switch			Healthy	10:00:00:27:F8:2E:EB:D7
<b>BroSAN B</b>	BroSAN B	BroSAN B			Unknown	
Bulova2-B	Bulova2-B	Switch	<b>CN8446F01B</b>	Online	Healthy	10:00:50:EB:1A:68:27:F8
VFC4CN85430007	VFC4CN85430007	Access Gate...	<b>CN8446F01D</b>	Unknown	Unknown	10:00:00:11:0A:00:DC:C8
FID120	FID120	Switch	USB244V0BB	Online	Healthy	10:00:00:27:F8:2E:EB:D8
Chassis Group	Brocade5100	Switch	USB244V0BB	Operational	10:00:00:27:F8:2E:EB:F5	
Hosts						

3. In OneView, from the SAN Manager view, add a SAN Manager to the BNA instance managing the Brocade FC ICM's.

Add SAN Manager

SAN manager type	Brocade Network Advisor
<b>General</b>	
IP address or host name	16.71.128.61
Port	5989
<input checked="" type="checkbox"/> Use SSL	
<b>Credentials</b>	
User name	Administrator
Password	*****
<span style="color: red;">(2) Changed: Password</span> <span style="color: red;">Add</span> <span>Add +</span> <span>Cancel</span>	

4. In the SAN Manager view, Click the “Used by” link to view the SANs discovered by the SAN Manager.

<a href="#">+ Add SAN manager</a>		16.71.128.61   General		Actions
●	Name	▲ Type		
●	16.71.128.61	Brocade Network Advisor		
●	Direct attach	Direct attach		
●	hpfc39ftc.rdlabs.hpecorp.net	HPE		
		<b>General</b>		
		SAN manager type	Brocade Network Advisor	
		State	Managed	
		Version	14.4.2.39	
		Port	5989	
		Use SSL	Yes	
		User name	Administrator	
		Used by	2 SANs	

The screenshot shows the HPE OneView interface. In the top navigation bar, there is a search bar with the query "deviceManagerName:16.71.128.61". Below the search bar, there are filters for "SANs 2", "All statuses", "16.71.128.61", "All states", "All labels", and "Reset". On the right side of the header, there are icons for notifications (12), user profile, and help.

The main content area displays a table of SANs. A red box highlights the first row of the table:

Name	SAN Manager	State
BroSAN A	16.71.128.61	Discovered
BroSAN B	16.71.128.61	Discovered

To the right of the table, a detailed view of "BroSAN A" is shown. The "General" tab is selected. The details are as follows:

- General**
  - State: Discovered
  - Type: FC
  - Principal switch: 10:00:50:EB:1A:68:1E:35
  - SAN manager: 16.71.128.61
  - Associated networks: none
- Zoning Policy**
  - Zoned: Yes
  - Automate zoning: Yes
  - Zone layout: Single initiator / all targets
  - Zone name format: server profile (selected)
  - Zone names update when resources are renamed: Yes
  - Create aliases: Yes
  - Manage pre-existing ..: No

5. For each discovered SAN, click on the Networks menu and “Create network” and associate it with the discovered SAN as shown below.

The screenshot shows the "Create Network" dialog box. The "Name" field is set to "BroSAN A". The "Type" field has "Fibre Channel" selected. The "Fabric type" dropdown is set to "Fabric attach".

The "Associated SAN" dropdown is set to "BroSAN A" (16.71.128.61). A tooltip explains: "Associating a SAN with a network allows for automation of zoning on the network as well as end-to-end connectivity verification. [Learn more](#)".

The "Preferred bandwidth" dropdown is set to "BroSAN A 16.71.128.61".

The "Maximum bandwidth" dropdown lists "BroSAN B 16.71.128.61", "VSAN10 hpcf39.ftc.rdlabs.hpecorp.net", "VSAN20 hpcf39.ftc.rdlabs.hpecorp.net", and "VSAN40 hpcf39.ftc.rdlabs.hpecorp.net".

The "Login redistribution" dropdown lists "VSAN10", "VSAN20", and "VSAN40".

The "Link stability interval" input field is set to "30 seconds".

At the bottom of the dialog, there are three buttons: "Create" (highlighted with a red arrow), "Create +", and "Cancel". A status message at the bottom left says "Changed: Name to 'BroSAN A'".

6. Next, ensure that your server has an FC HBA mezzanine card interfacing with the Brocade FC ICMs.

The screenshot shows the HPE OneView interface. On the left, the 'Server Hardware' list shows three servers: svt7011, bay 4, svt7011, bay 12, and svt7011, bay 16. The 'svt7011, bay 16' row has a red arrow pointing to its 'Server Name' field. On the right, the detailed view for 'svt7011, bay 16' shows hardware and utilization information. The 'Ports >' section lists ports for FlexibleLOM1 and Mezzanine cards. A red box highlights the 'Mezzanine 2' row, which includes two ports (1 and 2) connected to interconnects svt7011\_interconnect\_5 and svt7011\_interconnect\_6 respectively.

7. Now, a server profile can be created to configure the server. In the server profile's Connection section, add connections for each of the server's FC HBA's ports connecting to Brocade FC ICMs. For each added connection, select the network (created in step 5) associated to the SAN uplinked from the Brocade FC ICM and the server mezzanine card Port interfacing to the Brocade FC ICM and click Add. Note that OneView is unable to validate these connections, as the ICM is unmanaged and the connections can only be used for data volume access. They are not supported as Boot connections. Also, the connections will always use Physical WWN addresses (no virtual WWN support) regardless of the server profile's "WWN addresses" setting.

The screenshot shows the 'Add Connection' dialog. The 'General' tab is selected. The fields are filled as follows: Name (brocade SAN A access), Function type (Fibre Channel), Network (BroSAN A), and Port (Mezzanine 2:1). A yellow callout box provides a note about downlink verification. At the bottom, there are three buttons: 'Add' (highlighted with a red arrow), 'Add +', and 'Cancel'.

8. After adding connections, SAN storage can be configured in the profile as well. The server profile will appear as shown below. Click "Create" to create and assign the profile.

**Create Server Profile** | **Connections** | ?

### Connections

ID	Name	Network	Port	Boot			
1	brocade SAN A access	BroSAN A	Fabric attach	Mezzanine 2:1	Not bootable		
2	brocade SAN B access	BroSAN B	Fabric attach	Mezzanine 2:2	Not bootable		

Type Fibre Channel  
WWPN Auto  
WWNN Auto  
MAC address Auto

Type Fibre Channel  
WWPN Auto  
WWNN Auto  
MAC address Auto

**Add connection**

**Local Storage**

Integrated storage controller

Managed manually  
no storage is configured

**SAN Storage**

Manage SAN Storage  
Host OS type: Windows 2012 / WS2012 R2

Volume Attachments

Expand all Collapse all

Name	LUN	Pool	Size	Sharing	Enabled Paths	Boot	
datavol pending create	Auto	fast-ssd-cpg	100.00 GiB	Private	2		
Storage system	avon						
Volume template	none						
Permanent	No						
Provisioning	Thin						
Storage paths							

Connection ID Server Initiator Network Storage Targets Enabled

Connection ID	Server Initiator	Network	Storage Targets	Enabled
1	pending assignment	BroSAN A	Fabric attach pending assignment <input checked="" type="checkbox"/>	
2	pending assignment	BroSAN B	Fabric attach pending assignment <input checked="" type="checkbox"/>	

Checked: Manage SAN Storage **Create** **Create +** **Cancel**

9. After applying the server profile, the server connections and managed volume attachments will be configured and will appear as shown.

The screenshot shows the HPE OneView interface for managing server profiles. A red box highlights the 'Connections' section under the 'zyzxx' profile, which lists two Brocade SAN access connections. Another red box highlights the 'Volume attachments' section for a 'datavol' volume, showing it is managed and OK. A third red box points to a note about storage paths being managed on 3PAR and auto-zoned on SANs.

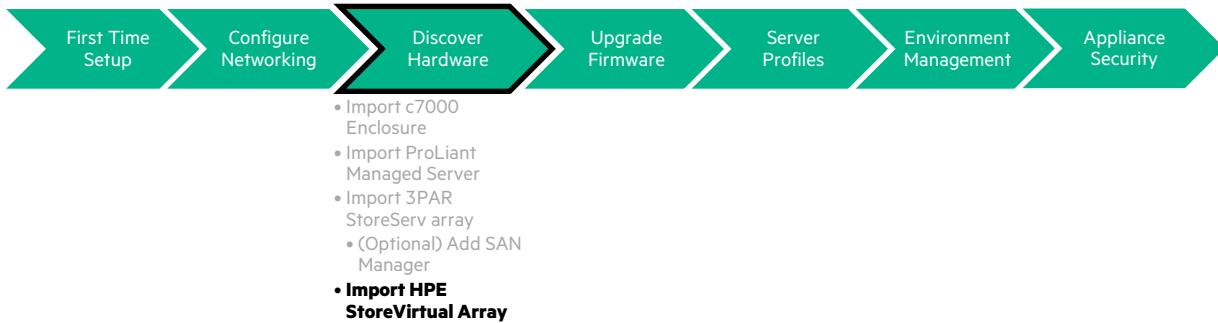
ID	Name	Network	Port	Boot
1	brocade SAN A access	BroSAN_A	Fabric attach	Mezzanine 2:1
2	brocade SAN B access	BroSAN_B	Fabric attach	Mezzanine 2:2

Name	LUN	Pool	Size	Sharing	Enabled Paths	Boot
datavol	1	fast-ssd-cpg	100.00 GiB	Private	2	No

10. The server is configured with managed 3PAR storage through Brocade FC ICMs. The server is ready to be powered on and use the managed storage.

## Importing HPE StoreVirtual VSA System



HPE OneView supports managed storage volumes from HPE 3PAR StoreServ and HPE StoreVirtual storage systems, with managed storage functions working similarly across both storage systems. One difference is that StoreVirtual storage system ports are identified by virtual IP addresses (VIPs). In order for server profiles to configure volume access to a StoreVirtual volume, its VIPs must be associated with an Ethernet network which the VIP is accessible on.

To import an HPE StoreVirtual array perform the following.

1. From the Top-Level Menu, select **Storage Systems**.

The screenshot shows the HPE OneView interface with the 'Storage' tab selected in the top navigation bar. Under the 'STORAGE' section, the 'Storage Systems' option is highlighted with a red arrow. Other options include Volumes, Volume Templates, Storage Pools, SANs, and Unmanaged Devices.

2. In the Storage Systems screen, click the **+Add storage system** button.

The screenshot shows the 'Storage Systems' screen in OneView. A red arrow points to the green '+ Add storage system' button located at the top left of the main content area.

3. Select the type of storage system to be imported using the drop down menu, select **StoreVirtual**.

The screenshot shows the 'Add Storage System' dialog. The 'Storage system type' dropdown is open, showing 'Select type' at the top, followed by 'StoreServ' and 'StoreVirtual'. A red arrow points to the 'StoreVirtual' option.

4. In the Add Storage System screen, add the **FQDN or IP Address** of the cluster IP address of the StoreVirtual cluster to be added, along with Administrator credentials. The IP address/host name can be either a cluster VIP (preferred for resiliency) or a node IP address.

The screenshot shows the 'Add Storage System' dialog. The 'Cluster IP address or host name' field contains '172.18.30.1'. The 'User name' field contains 'dcs' and the 'Password' field contains '\*\*\*'. A red box highlights the 'Connect' button at the bottom.

5. Click the **Connect** button to connect to the StoreVirtual cluster.

Add Storage System | Credentials | ?

Storage system type: StoreVirtual

Cluster IP address or host name: 172.18.30.1

**Credentials**

User name: dcs

Password: \*\*\*

**Connect**

6. In the Storage System Ports section, each discovered cluster VIP needs to be associated to the network it can be accessed on. This is the network that server profiles must connect to in order to access volumes from the storage system using the VIP.

Add Storage System | General | ?

Cluster IP address or host name: 172.18.30.1

**Credentials**

User name: dcs

Password: \*\*\*

**General**

Cluster name: Cluster-1

Software version: 11.x/12.x

Total capacity: 0.02 TiB

Free capacity: 0.02 TiB

**Storage System Ports**

VIP	Network
172.18.30.1	<input type="button" value="None"/> <input type="button" value="Blue-A"/> <input type="button" value="Blue-B"/> <input type="button" value="Facilities-A"/> <input type="button" value="Facilities-B"/> <input type="button" value="Finance-A"/> <input type="button" value="Finance-B"/>

35 out of 36

7. Click **Add** to add the storage system to HPE OneView.

Add Storage System | Credentials | ?

Cluster IP address or host name **172.18.30.1**

**Credentials**

User name **dcs**

Password **\*\*\***

**General**

Cluster name **Cluster-1**

Software version **11.x/12.x**

Total capacity **0.02 TiB**

Free capacity **0.02 TiB**

**Storage System Ports**

VIP Network

172.18.30.1 Blue-A

Connected to storage system.

Add Add + Cancel

## Create Storage Volume Templates for StoreVirtual Volumes

Storage Volume Templates allow the Storage Administrator to specify a set of volume properties when creating multiple volumes or to enforce certain volume property settings when server admins are creating volumes. Storage Volume Templates are not required in order to provision Storage Volumes (unless the HPE OneView global storage setting to require a volume template is enabled – described elsewhere). Create a StoreVirtual volume template by selecting a StoreVirtual pool for the volume template to create volumes from. Create the volume template as follows.

- From the Top-Level Menu, select **Volume Templates**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	<b>Volume Templates</b>	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Groups	Storage Systems	Unmanaged Devices
	Enclosures		Logical Interconnects	SANs	
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

- Click **Create volume template** button



3. In the Create Volume Template screen, enter a **Name** for the Volume template

4. Enter a **description** for the Volume Template

5. Using the storage pool drop down list, select the **Storage pool**

Storage pool	Description
StoreVirtual Gary13_SVSA-SLPT-Pool	290.42 GiB free
garycpg	StoreServ avon RAID1 0.95 TiB free
GaryCPG-1TMax-200kWarn	StoreServ avon RAID1 1.00 TiB free
GaryVSACluster	StoreVirtual GaryVSACluster 85.73 GiB free

6. In the Volume Properties section, select the **capacity** for the volume template

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

Volume Properties

Capacity: 50.00 GiB

Enter a volume capacity for this volume template.

7. In the Volume Properties section, select the **Sharing option** for the volume template

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

Volume Properties

Capacity: 50.00 GiB

Sharing: Private Shared

8. In the Advanced section, use the provisioning drop down list to select the **provisioning model** for the volume template

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

Volume Properties

Capacity: 50.00 GiB

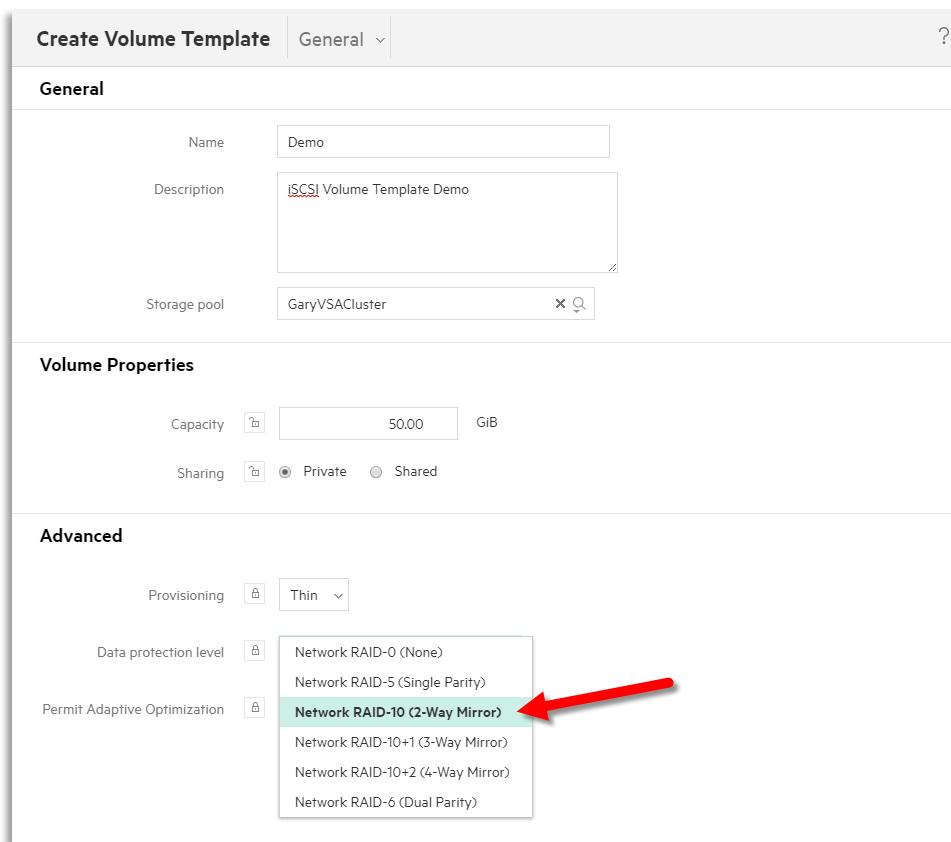
Sharing: Private Shared

Advanced

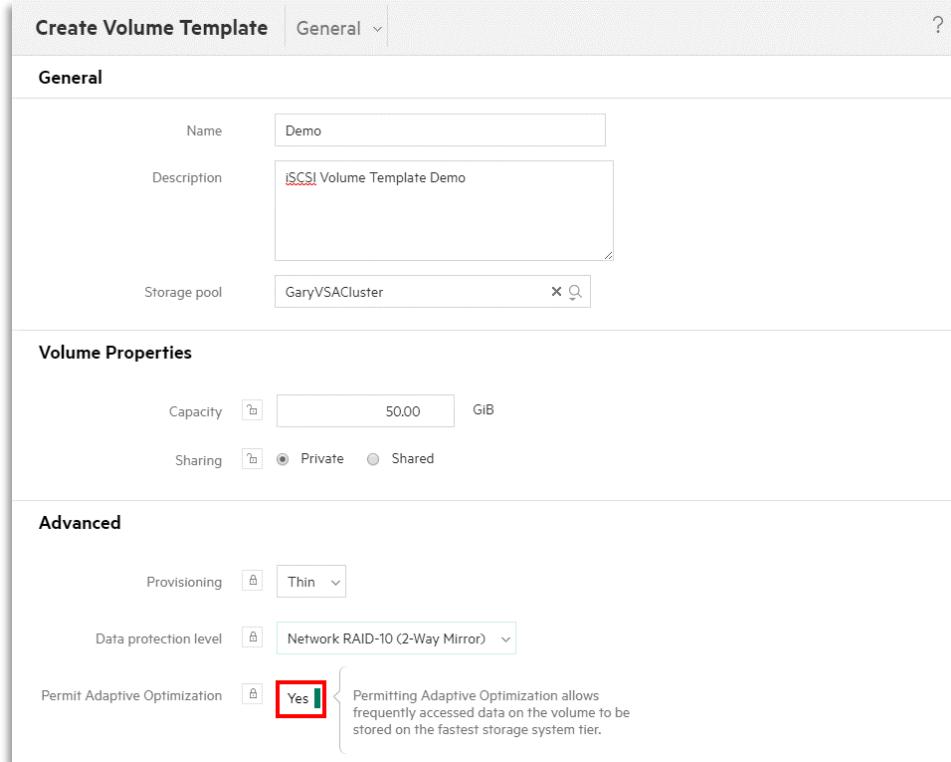
Provisioning: Thin Full

Select provisioning type for this template. Provisioning type will not be checked for consistency and is not editable on any volumes created from this template.

9. In the Advanced section, select the **Data Protection Level** for the volume template



10. In the Advanced section, select the **Permit Adaptive Optimization** for the volume template



11. Next, select the enforcement mode for each volume property. Volume properties which are **locked** are not editable when a volume is created using the template. Volume properties which are **unlocked** are editable when a volume is created using the template. Click on the lock icons to toggle between **locked** and **unlocked** property enforcement.

Create Volume Template | General | ?

**General**

Name	Demo
Description	iSCSI Volume Template Demo
Storage pool	GaryVSACluster <input type="button" value="x"/> <input type="button" value="Q"/>

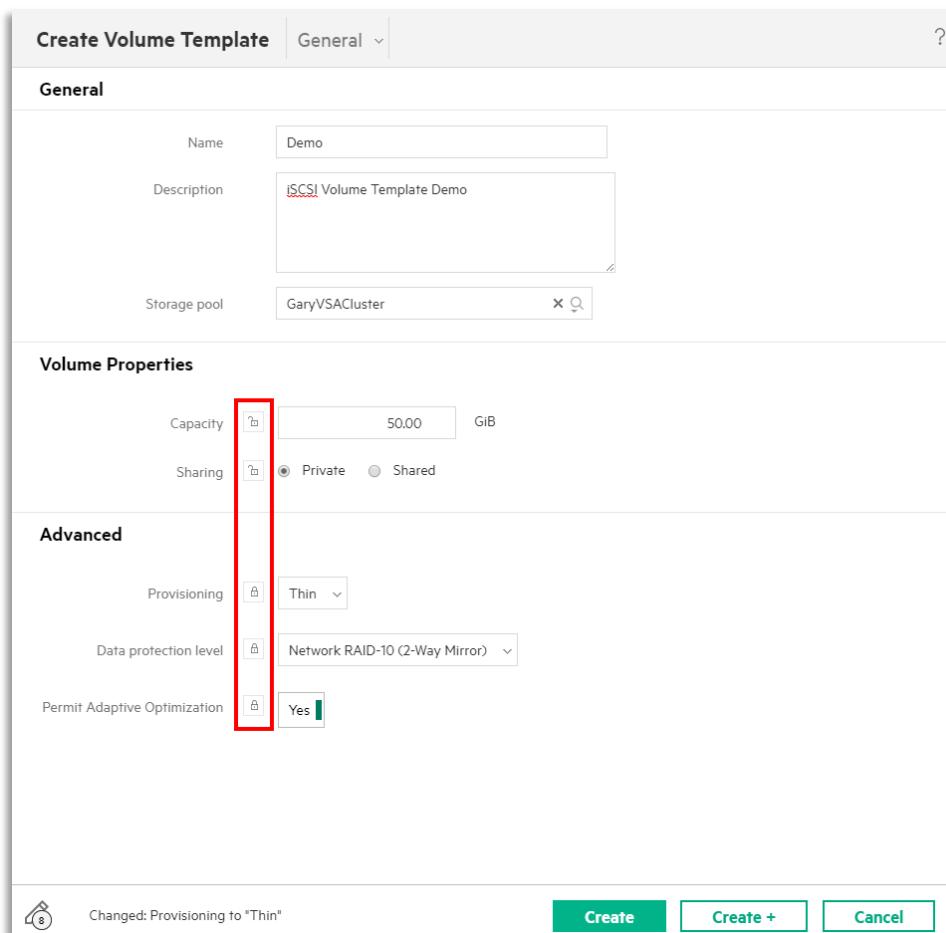
**Volume Properties**

Capacity	<input type="button" value="i"/> 50.00 GiB
Sharing	<input type="button" value="i"/> <input checked="" type="radio"/> Private <input type="radio"/> Shared

**Advanced**

Provisioning	<input type="button" value="i"/> Thin
Data protection level	<input type="button" value="i"/> Network RAID-10 (2-Way Mirror)
Permit Adaptive Optimization	<input type="button" value="i"/> Yes

Changed: Provisioning to "Thin"



12. Then click the **Create** or **Create+** button.

**Create Volume Template** General ?

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

**Volume Properties**

Capacity: 50.00 GiB

Sharing: Private

**Advanced**

Provisioning: Thin

Data protection level: Network RAID-10 (2-Way Mirror)

Permit Adaptive Optimization: Yes

Changed: Provisioning to "Thin"

**Create** **Create +** **Cancel**

## Creating StoreVirtual Storage Volumes

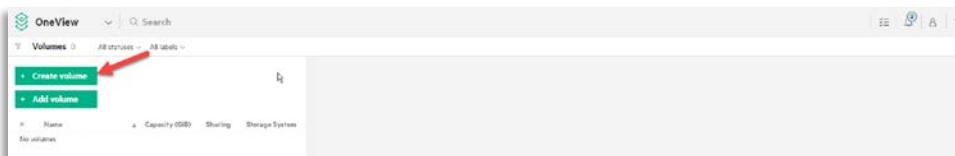
Volumes can be created independent of server profiles within the **Volumes** view, under the Storage column of the Top-Level Menu within the UI or created as part of a server profile. When created using the Volumes view, the volume's lifecycle will be independent of all server profiles (i.e. "permanent"). When created as part of a server profile, the volume's lifecycle can optionally be tied to the server profile (i.e. "non-permanent", also called "Ephemeral") such that when the server profile is deleted, the volume will be deleted as well.

Volumes can be created by either server or storage administrator roles.

- From the Top-Level Menu, select **Volumes**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Storage Systems
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- Click the **Create volume** button.



3. In the Create Volume screen, enter a **Name** for the volume

The 'Create Volume' dialog box is shown. The 'Name' field contains 'Demo', which is highlighted with a red box.

4. Enter a **description** for the volume

The 'Create Volume' dialog box is shown. The 'Description' field contains 'Demo Volume', which is highlighted with a red box.

5. In the Create Volume screen, the options can be restricted if the Storage Administrator has forced Volume Creation to be provisioned from a Storage Volume Template. Otherwise, the administrator creating the **Volume** may choose whether it will be associated with an available Storage Volume Template.

The 'Create Volume' dialog box is shown. The 'Volume template' dropdown is set to 'None'. The 'Storage pool' dropdown is expanded, showing a list of available storage pools. A red arrow points to the 'None' option in the dropdown. Another red arrow points to the dropdown menu itself.

Storage pool	Description	Capacity
Demo	CPG-SSD Thin Private	10.00 GiB

6. If not associated with a volume template, select the **Storage Pool** for the volume

The 'Create Volume' dialog box is shown with the 'General' tab selected. The 'Volume template' dropdown is set to 'None'. The 'Storage pool' dropdown is expanded, showing a list of available storage pools. A red arrow points to the 'Storage pool' dropdown. A callout bubble with the text 'Select the storage pool to host this volume.' points to the dropdown.

Storage pool	Description	Capacity
Cluster-1	StoreVirtual Cluster-1	20.87 GiB free
Cluster-2	StoreVirtual Cluster-2	20.87 GiB free
Cluster-3	StoreVirtual Cluster-3	20.87 GiB free
cpg-growth-limit-1TiB	StoreServ ThreePAR-1 RAID5	802.00 GiB free

7. In the Volume Properties section, set the **Capacity** for the volume

Create Volume | General | ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

### Volume Properties

Capacity	1.00	GiB
----------	------	-----

8. In the Volume Properties section, set the **Sharing Method** for the volume

Create Volume | General | ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

### Volume Properties

Capacity	1.00	GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared	

9. In the Advanced section, set the **Provisioning method** for the volume

Create Volume | General | ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

### Volume Properties

Capacity	1.00	GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared	

### Advanced

Provisioning	Thin Full
--------------	--------------

Select provisioning type for this volume. If a volume template is specified, the provisioning type will not be checked for consistency with

10. In the Advanced section, set the **Data protection level** for the volume

Create Volume General ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

### Volume Properties

Capacity	1.00 GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

### Advanced

Provisioning	Thin
Data protection level	Network RAID-0 (None) Network RAID-5 (Single Parity) <b>Network RAID-10 (2-Way Mirror)</b> (highlighted) Network RAID-10+1 (3-Way Mirror) Network RAID-10+2 (4-Way Mirror) Network RAID-6 (Dual Parity)
Permit Adaptive Optimization	<input checked="" type="checkbox"/> Yes

11. In the Advanced section, set the **Permit Adaptive Optimization** for the volume

Create Volume General ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

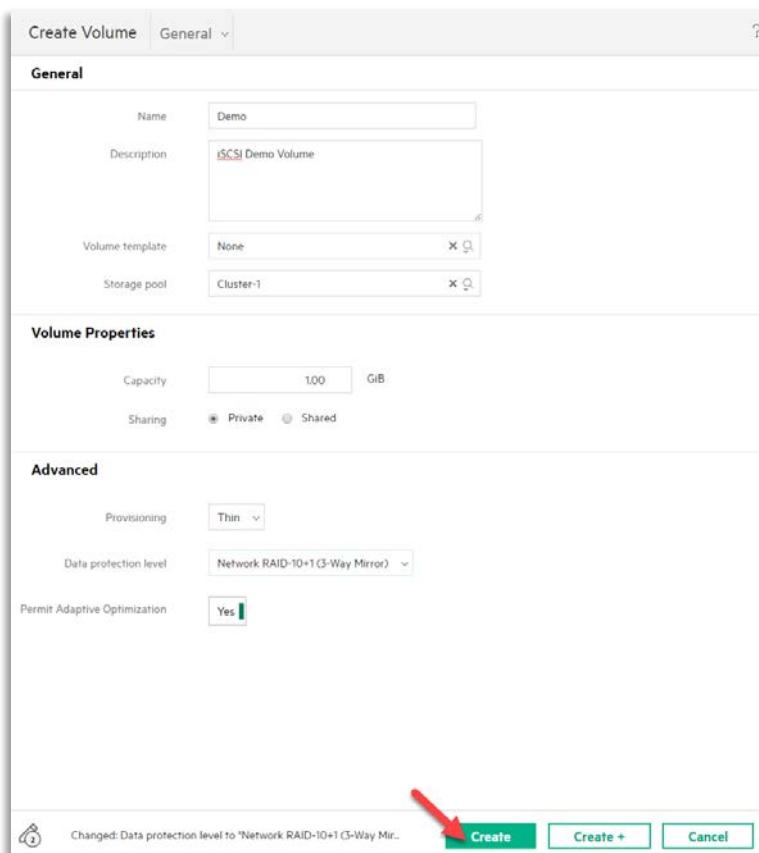
### Volume Properties

Capacity	1.00 GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

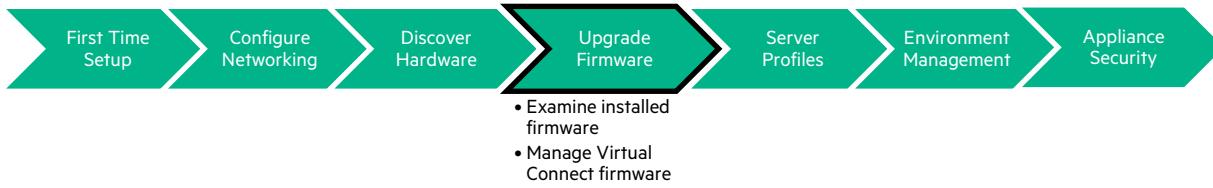
### Advanced

Provisioning	Thin
Data protection level	Network RAID-10+1 (3-Way Mirror)
Permit Adaptive Optimization	<input checked="" type="checkbox"/> Yes

12. Click **Create** or **Create+** button to create the volume.



## Upgrade Infrastructure Firmware



In this exercise, you will examine the firmware status of the imported enclosures and servers.

### Examine Infrastructure Firmware

The first place to start is with the Enclosure. There is a *Firmware* sub-menu view that you can switch to, which will report the firmware installed. If a Firmware Baseline was attached during the *Enclosure* import process, it will also report the available version in the Firmware Baseline.

- From the Top-Level menu, select **Enclosures**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosure		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	SAN Managers
			Logical Switch Groups		
			Logical Switches		
			Switches		

2. Select **Firmware** in the submenu.

The screenshot shows the 'Enclosures' view for 'Encl1'. The left sidebar has sections like 'Add enclosure', 'Name', 'Encl1', 'General', 'Hardware' (with 'Firmware' highlighted), 'Utilization', 'Power Supplies', 'Fans', 'Temperature', 'Interconnects', 'Remote Support', 'OA', 'Location', 'Powered by', and 'Serial number'. The main area shows 'Front View' and 'Rear View' of the enclosure, listing components like 'Enc1.bay.1' through 'Enc1.bay.16' and 'Enc1.interconnect.1' through 'Enc1.interconnect.2' with their respective part numbers and serial numbers.

3. Examine what is installed.

The screenshot shows the 'Firmware' details for 'Encl1'. It lists various components with their names, component types (e.g., Onboard Administrator, ROM), installed versions, and last update dates. Components include 'Enc1.OA.1', 'Enc1.OA.2', 'Enc1.bay.1' through 'Enc1.bay.13', and 'Enc1.interconnect.1' through 'Enc1.interconnect.2'.

Name	Component	Installed
Enc1.OA.1	Onboard Administrator	4.50
Enc1.OA.2	Onboard Administrator	4.50
Enc1.bay.1	ROM	08.43.08/05/2014
Enc1.bay.2	ROM	08.43.08/05/2014
Enc1.bay.3	ROM	2.20
Enc1.bay.4	ROM	01.09/30/2011
Enc1.bay.5	ROM	2.20
Enc1.bay.6	ROM	2.20
Enc1.bay.7	ROM	01.09/30/2011
Enc1.bay.8	ROM	2.20
Enc1.bay.9	ROM	01.09/30/2011
Enc1.bay.10	ROM	2.20
Enc1.bay.11	ROM	08.43.08/26/2014
Enc1.bay.12	ROM	2.20
Enc1.bay.13	ROM	08.43.08/26/2014
Enc1.bay.14	ROM	2.20

## Managing Virtual Connect Firmware

HPE OneView provides the ability to manage Virtual Connect firmware from multiple locations; at the *Logical Interconnect* or *Enclosure* level. Managing Virtual Connect firmware at the *Logical Interconnect* would be used for those times where only VC firmware requiring updating.

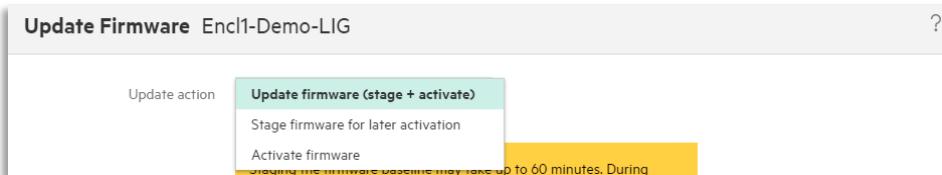
1. From the Top-Level Menu, select **Logical Interconnects**.

The screenshot shows the top-level menu with categories like GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under the 'Dashboard' section, there are links for Activity, Firmware Bundles, and Reports. Under SERVERS, there are links for Server Profiles, Server Profile Templates, and Logical Enclosures. Under HYPERVISORS, there are links for Hypervisor Cluster Profiles, Hypervisor Profiles, and Hypervisor Managers. Under NETWORKING, there are links for Networks, Network Sets, and Logical Interconnects. Under STORAGE, there are links for Volumes, Volume Templates, Storage Pools, SANs, and SAN Managers. Under FACILITIES, there are links for Data Centers, Racks, Power Delivery Devices, and Unmanaged Devices. A red arrow points to the 'Logical Interconnects' link under the 'Logical Interconnects' heading.

2. In the Logical Interconnects view, validate the [ENC-Name]-LI *Logical Interconnect* is selected, then select **Update Firmware** from the Actions menu.



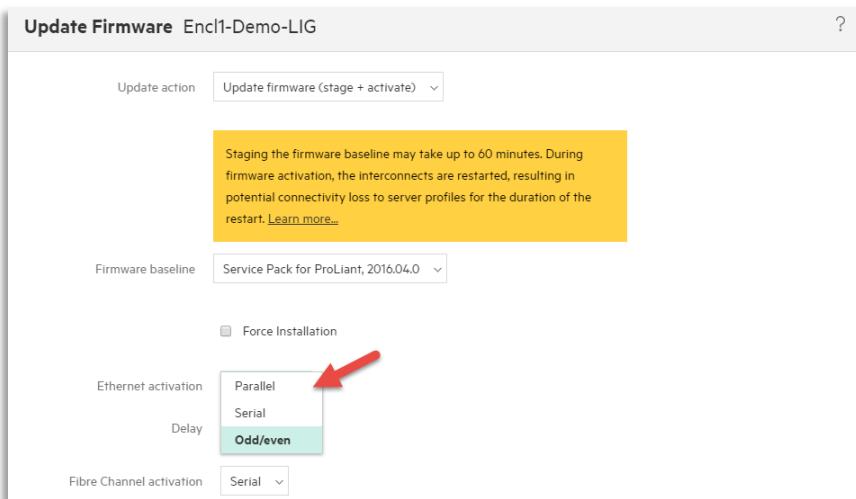
3. On the Update Firmware on [ENC-NAME]-LI window, select the update action from the drop-down list



4. Select the **Firmware Baseline** from the firmware baseline dropdown list.



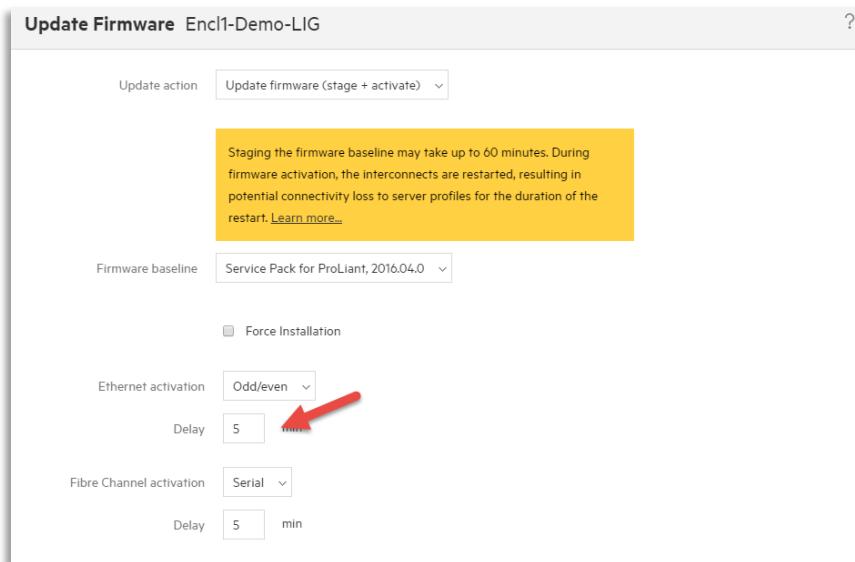
5. Select the Ethernet and Fibre Channel activation methods from the dropdown list



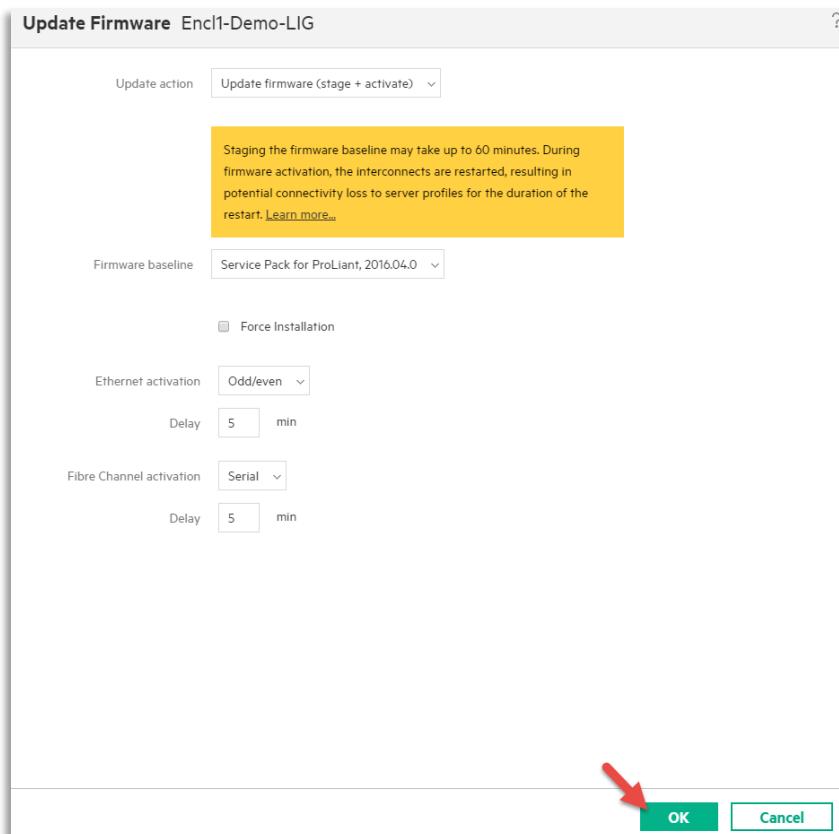
#### Note

HPE OneView does not offer the ability to modify Activation order, and each module is activated independently or at the same time, which will cause a network outage. To control potential outages, consider staging and manual activation of Virtual Connect firmware.

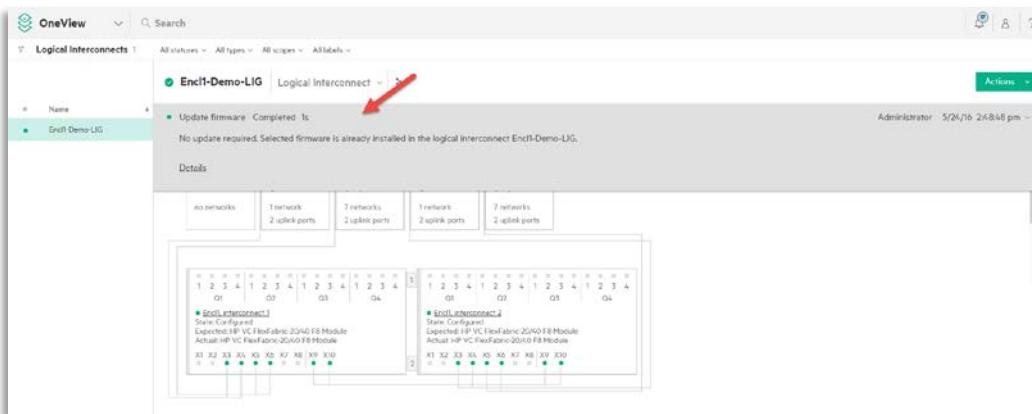
6. Set the appropriate delay for the activation methods.



7. Click **OK** to begin the firmware update process.



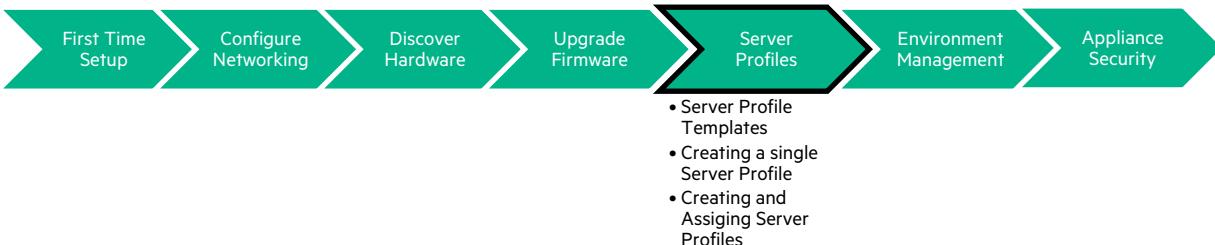
However, if you want to examine the individual update process for each Virtual Connect module, click the **Details** link in the Activity bar.



Once the firmware update has completed, examine the Firmware section.



## Creating Server Profiles



Server Profiles are managed resources that specify supported settings for the selected *Server Hardware Type* (e.g. Hardware Platform, Adapter Layout/Network Connections, BIOS Settings) and *Enclosure Group* (e.g. Networks based on *Logical Interconnect*) and can be left *Unassigned* for use as a *Template*. A *Firmware Baseline* (Policy) can be set within the *Server Profile* (for supported platforms), which will automatically update the firmware prior to assigning and configuring the *Server Profile* to the Device Bay it's assigned.

Server Profile Affinity is to provide and control if and when the Server Profile is reapplied to the server hardware during rip-and-replace procedures. When the Server Profile Affinity is set to *Device Bay*, the Server Profile will be reapplied (Connections, BIOS, Boot Order, Firmware, etc.) when any server blade is inserted into the device bay, as long as the Server Hardware Type (SHT) matches the original configured SHT. If the Server Profile Affinity is set to *Device Bay + Server Hardware*, then the Server Profile will not be applied in the event of the physical server being reinserted into the same Device Bay. When the Server Hardware and its physical Serial Number do not match, the Server Profile will be flagged as Incompatible.

Managing SAN storage within server profiles will automate configuring access from the server to new (on-demand) or existing, private or shared SAN volumes. The Server Administrator can attach 1 or more Volumes to a Server Profile using 1 or more storage paths per volume. When the Server Profile is assigned to a Server, HPE OneView will orchestrate creating new volumes, configuring their presentation to the server (i.e. host, vLUN and target port selection) on the HPE 3PAR StoreServ and HPE StoreVirtual storage systems, as well as configuring any required FC Zones for Fabric Attach managed SANs.

In this chapter, you will first create a *Server Profile* to be used as a *Template* that defines specific elements. The *Server Profile Template* will then be copied and assigned to a *Server Hardware Device*.

### Create Server Profile for Template Use

Server Profile Templates provide a powerful way to update and maintain your existing infrastructure. HPE OneView simplifies the one to many styles of update and management of server profiles using templates. This feature adds inheritance to HPE OneView templates where BIOS settings, firmware & driver updates, as well as other functions can be made in the template and then propagated out to the profiles created from that template.

The Templates in HPE OneView provide a monitor and flag model. Profiles created from the template are monitored for compliance with the desired configuration. When inconsistencies are detected the profile is flagged as no longer being compliant with the template. So, when a new update is made at the template level, all profiles parented to that template will be flagged as not being consistent. From there – the user has control to bring individual nodes into compliance with the template or multi-select systems for update to the template.

- From the main menu, select **Server Profile Template**.

The screenshot shows the HPE OneView navigation bar with several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under the SERVERS category, 'Server Profile Templates' is highlighted with a red arrow. Other options under SERVERS include Server Profiles, Hypervisor Cluster Profiles, Hypervisor Profiles, Hypervisor Managers, Enclosure Groups, Logical Enclosures, Enclosures, Rack Managers, Server Hardware, and Types. The HYPERVISORS category contains Networks, Network Sets, Logical Interconnect, Groups, Logical Interconnects, Interconnects, Logical Switch Groups, Logical Switches, and Switches. The other categories have their own sub-options.

- Once on the Server Profile Template screen, select the **+Create Server Profile Template** button

The screenshot shows the 'Server Profile Templates' list page. At the top left, there is a green button labeled '+ Create server profile template'. A red arrow points to this button. The page also includes a search bar, filter options for 'All statuses' and 'All labels', and a toolbar with icons for refresh, search, and help.

- In the General section of the server profile template creation page, provide a **Name** and **Description** for the Server Profile Template.

The screenshot shows the 'Create Server Profile Template' page with the 'General' tab selected. It has two input fields: 'Name' and 'Description', both of which are highlighted with red boxes.

- In the Server Profile section of the server profile template creation page, enter a **description** for the server profile template.

The screenshot shows the 'Create Server Profile Template' page with the 'Server Profile' tab selected. It has one input field labeled 'Server profile description' containing the value 'Demo template', which is highlighted with a red box.

- Select the **Server Hardware Type** using the dropdown menu.

**Create Server Profile Template** General

**General**

Name	Demo
Description	Demo

**Server Profile**

Server profile description	Demo template
Server hardware type	<input type="text" value="Search"/>  BL460c Gen8 1
Enclosure group	
Affinity	

**Firmware**

DL360 Gen9 1
DL380p Gen8 1

To define firmware settings, you must first select an enclosure group and server hardware type.

6. Select the **Enclosure Group** from the dropdown menu that the server profile template will be associated with.

**Create Server Profile Template** General

**General**

Name	Demo
Description	Demo

**Server Profile**

Server profile description	Demo template
Server hardware type	BL460c Gen9 1  
Enclosure group	<input type="text" value="Search"/>  Demo
Affinity	

7. Specify the **Server Affinity** method you'd like to configure.

**Create Server Profile Template** General

**General**

Name	Demo
Description	Demo

**Server Profile**

Server profile description	Demo template
Server hardware type	BL460c Gen9 1  
Enclosure group	Demo  
Affinity	 Device bay  Device bay + server hardware

8. In the firmware section of the server profile template creation page, select a **Firmware Baseline** from the dropdown menu.

**Create Server Profile Template** General ?

**General**

Name: Demo

Description: Demo

**Server Profile**

Server profile description: Demo template

Server hardware type: BL460c Gen9 1

Enclosure group: Demo

Affinity: Device bay

**Firmware**

Firmware baseline: Service Pack for ProLiant version 2016.04.0

managed manually *Has online appliance. Refer for selection.*

9. Once a baseline is selected, choose how the baseline will be applied to the servers used within this server profile template. If either of the options using the HPE Smart Update Tools is selected then the firmware or driver updates will be done while the systems are online. If the firmware *only* option is selected then the firmware will be updated offline using Intelligent Provisioning.

**Firmware**

Firmware baseline: Service Pack for ProLiant version 2016.04.0

Installation Method:

- Force installation
- Firmware and OS Drivers using Smart Update Tools
- Firmware only using Smart Update Tools
- Firmware only

10. Select when the firmware updates will be deployed for this server profile template

**Firmware**

Firmware baseline: Service Pack for ProLiant version 2016.04.0

Installation Method:

- Force installation
- Firmware and OS Drivers using Smart Update Tools
- Firmware only using Smart Update Tools
- Firmware only

Activate firmware:

- Immediately
- At a scheduled date and time
- Not scheduled

11. In the connections section of the server profile template creation page, click **Add Connection**.

**Create Server Profile Template**

Firmware

To limit disruption during future firmware updates, select a Smart Update option. Without Smart Update, the server hardware must be powered off. [Learn more](#)

Force installation

**Connections**

**Add Connection**

12. In the Add Connection dialog window, enter a **name** for the connection

**Add Connection**

**General**

Name **Demo**

13. Using the dropdown list select the function type for the connection

**Add Connection**

**General**

Name Demo

Function type **Ethernet** Specify the device type.

Network

14. Select the network to be associated with the function using the Network dropdown list

**Add Connection**

**General**

Name Demo

Function type Ethernet

Network

If the network you are looking for is not available, it is likely because it is not configured in the logical interconnect group associated with the selected enclosure group for this profile.

Blue-A	vlan 105
Blue-B	vlan 105
Colors-A	(network set)
Colors-B	(network set)
Green-A	vlan 110

15. Set the function type specific parameters

16. Click the **Add** to close the Add Connection dialog window or **Add+** button to continue adding Network Connections to the Server Profile.

Add Connection

General

Name	Demo
Function type	Ethernet
Network	Blue-A
Port	Auto
Requested bandwidth (Gb/s)	2.5
Boot	Not bootable

**Add** **Add +** **Cancel**

**Note**

The *Use user-specified IDs* is for those customers that wish to provide their own MAC or WWN address for that connection.

**Note**

You can specify which FlexNIC to assign the Network Connection to or leave it at the default of Auto. Auto will apply the same Network Connection to Adapter mapping Virtual Connect does today. Do know that you cannot create a FlexNIC B, C or D without first creating FlexNIC A.

17. (Optional) Adding *Fibre Channel Networks* is a similar operation as an Ethernet Device Type. FlexNIC B is reserved for FC Connections when FC Connection Types are added to the *Server Profile*. When choosing the FlexNIC, you can leave the default *Auto*. You can force the FlexNIC assignment, but the list will be filtered based on the connection location to the Interconnect Bay the FC Network is assigned to.

**Add Connection**

General

Name	Demo
Function type	Fibre Channel
Network	SAN_A
Port	Auto
Requested bandwidth (Gb/s)	2.5
Boot	Not bootable

**Add** **Add +** **Cancel**

(Optional) If you wish to configure FC Boot From SAN (BFS), change the Boot setting from Not Bootable to either **Primary or Secondary**. You will need to provide the *Target WWN* and *Host LUN ID* in the respective fields.

**Add Connection**

General

Name	Demo
Function type	Fibre Channel
Network	SAN_A
Port	Auto
Requested bandwidth (Gb/s)	2.5
Boot	<div style="background-color: #c8e6c9; padding: 2px;">Not bootable</div> <div style="background-color: #f0f0f0; padding: 2px;">FC primary</div> <div style="background-color: #f0f0f0; padding: 2px;">FC secondary</div>

18. If desired, enable local storage management by editing the edit option.

**Create Server Profile Template**

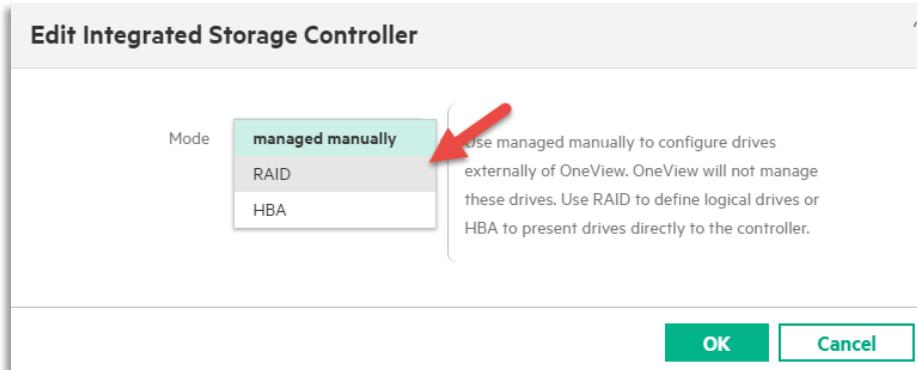
Connections

**Connections**

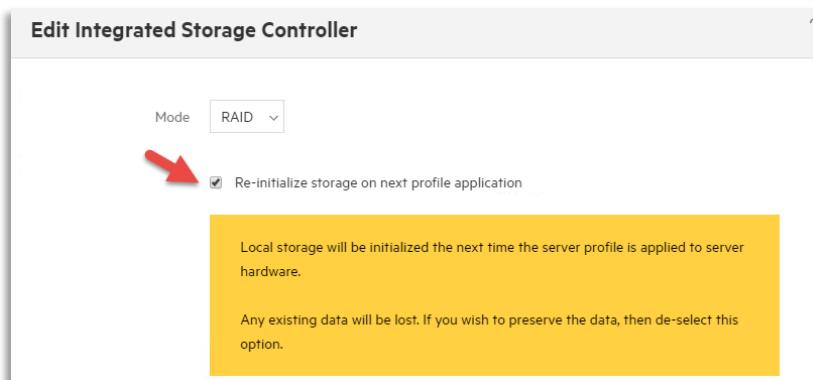
**Local Storage**

Integrated storage controller mode   managed manually

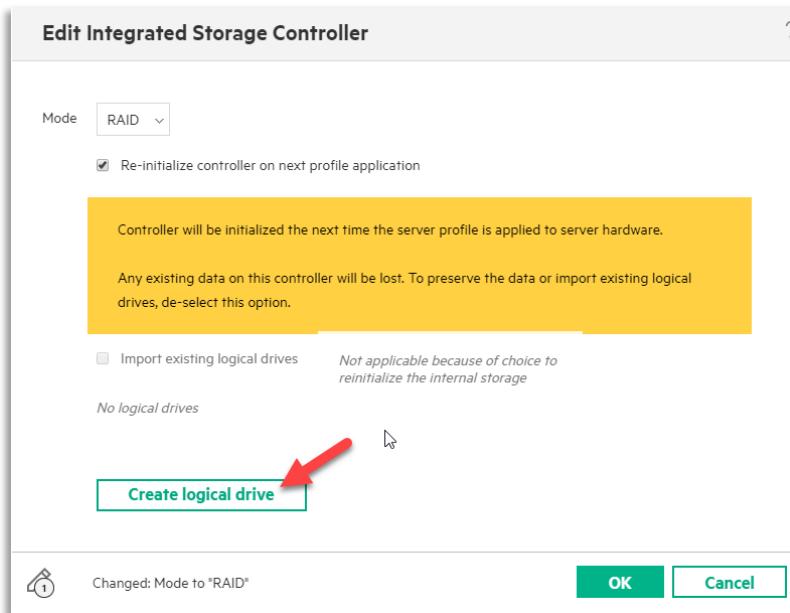
19. In the Edit Integrated Storage Controller dialog box, select the mode of the storage controller using the dropdown list



20. Enable or disable the option to Re-initialize storage on next profile application. A warning will be shown about this option



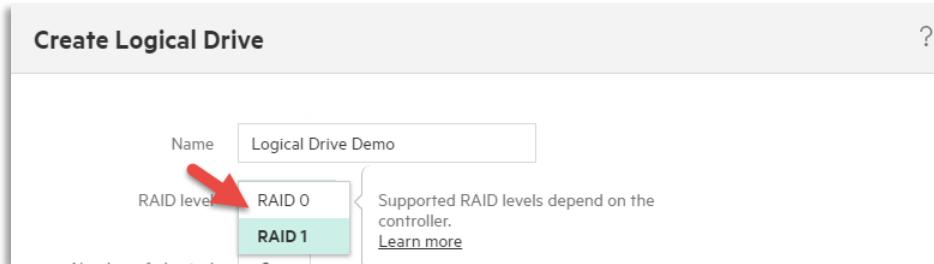
21. Click **Create logical drive**



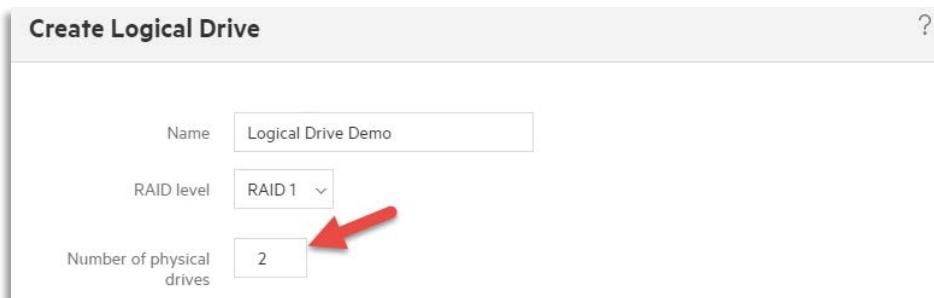
22. In the Create Logical Drive dialog window, enter a **Name** for the logical drive



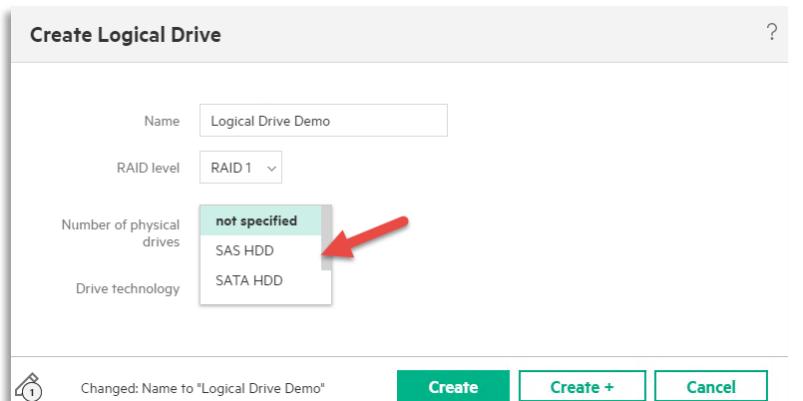
23. Select the **RAID Level** for the logical drive



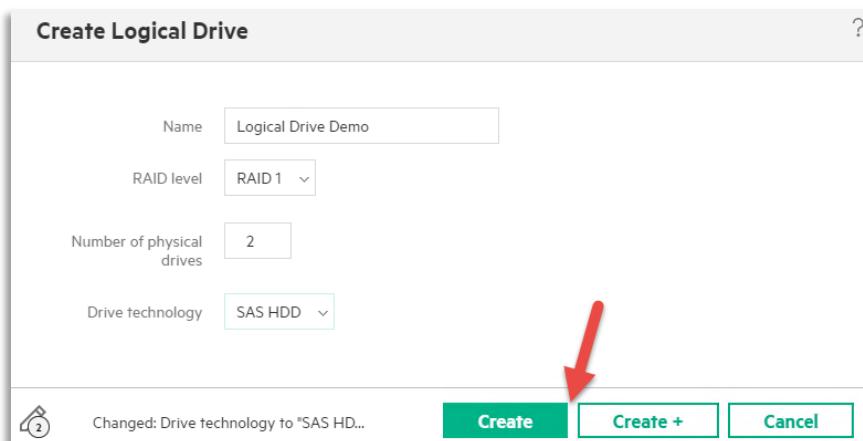
24. Select the **number of drives** for that RAID set



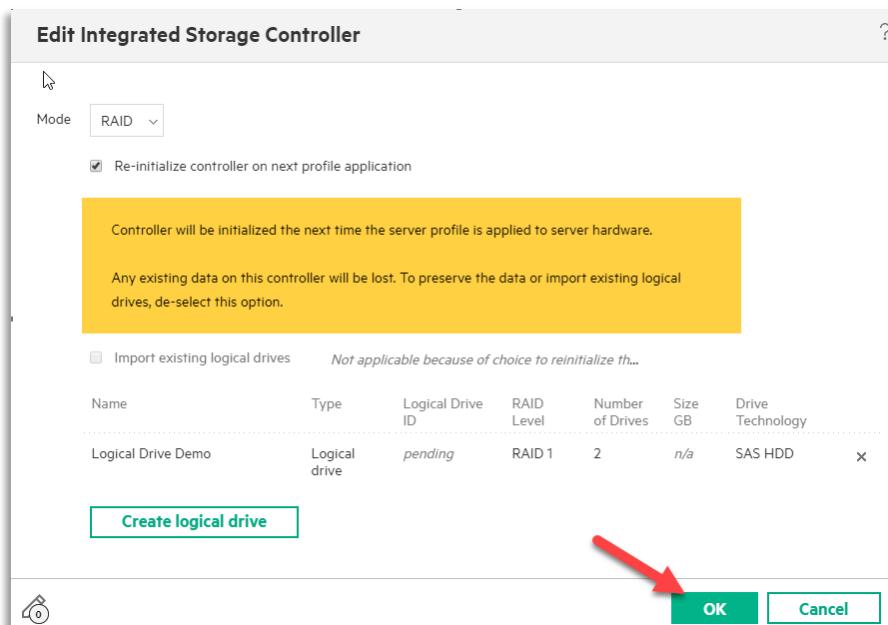
25. Select the **drive technology** of that RAID set.



26. Click **Create or Create+** to create the logical drive for the server profile template.



27. Once all of your logical drives are created, click **OK** to finish configuring the Integrated Storage Controller.

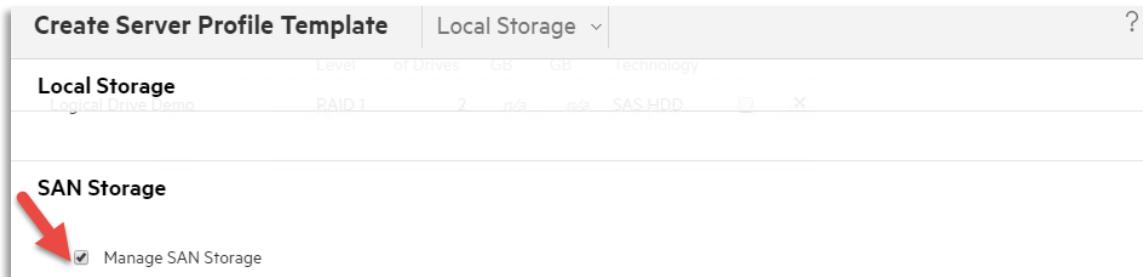


28. If desired, select the box to enable the Local Storage as the boot device



29. Enable SAN Storage if necessary.

A. **Check the box for Manage SAN Storage**



B. Specify the **Host OS Type**, which controls the Host created on the 3PAR storage system.

The screenshot shows the 'Create Server Profile Template' interface. In the 'SAN Storage' section, there is a checkbox labeled 'Manage SAN Storage'. Below it, a dropdown menu for 'Host OS type' is open, showing options like AIX, Citrix Xen Server 5.x/6.x, Egenera, Exanet, HP-UX (11i v1, 11i v2), HP-UX (11i v3), and IBM VIO Server. A red arrow points to the 'Add Volume' button, which is highlighted with a green border.

C. Click the **Add Volume** button to display the list of volumes available for assignment.

The screenshot shows the 'SAN Storage' configuration screen. It includes a 'Manage SAN Storage' checkbox, a 'Host OS type' dropdown set to 'Windows 2012 / WS2012 R2', and a 'Volume Attachments' section. A red arrow points to the 'Add Volume' button, which is highlighted with a green border.

D. In the Add Volume dialog window, select **Volume Type** from the drop down list

The screenshot shows the 'Add Volume' dialog window. On the 'General' tab, there is a 'Type' dropdown menu with two options: 'Existing volume' (which is selected and highlighted with a green border) and 'New volume'. Below the dropdown is a 'Volume Name' input field containing 'Search' and a magnifying glass icon. A red arrow points to the 'Type' dropdown menu.

E. If creating a new volume, create the volume to the desired specifications. New volumes can be created from a volume template or directly from a storage pool. After selecting a template or pool, the volume properties supported by the selected storage pool will be displayed.

**Add Volume**

**General**

Type	New volume
Name	<input type="text"/>
Description	<input type="text"/>
Scope	none
Volume template	None <input type="button" value="x"/> <input type="button" value="🔍"/>
<input checked="" type="checkbox"/> Filter templates by defined connections	
Storage pool	<input type="text"/> Search <input type="button" value="🔍"/>
<input checked="" type="checkbox"/> Filter pools by defined connections	

**Volume properties**

To define volume properties, specify a volume template or storage pool.

**Advanced**

To define advanced volume properties, specify a volume template or storage pool.

**Add** **Add +** **Cancel**

F. If using an existing volume select the Volume using the dropdown list or the SmartSearch feature.

**Add Volume**

**General**

Type	Existing volume
Name	<input type="text"/> Search <input type="button" value="🔍"/>
<input checked="" type="checkbox"/> Filter volumes by defined connections	

**Add** **Add +** **Cancel**

G. Once the *Volume* has been configured, the available Storage Paths will be displayed. You can disable, remove or add Storage Paths. Click **Add** or **Add+** to add the volume.

**Add Volume**

Scope: none

Volume template: None

Filter templates by defined connections

Storage pool: fast-ssd-cpg

Filter pools by defined connections

Boot: No

LUN:  Auto  Manual

**Volume properties**

Capacity: 100.00 GiB

Sharing: Private

Permanent

**Advanced**

Provisioning: Thin Deduplication

Snapshot storage pool: fast-ssd-cpg

Filter snapshot pools by defined connections

**Storage paths**

Connection ID	Network	Storage Targets	Enabled
1	BroSAN_A Fabric attach	pending assignment	<input type="button" value="Edit"/> <input checked="" type="checkbox"/> <input type="button" value="x"/>
2	BroSAN_B Fabric attach	pending assignment	<input type="button" value="Edit"/> <input checked="" type="checkbox"/> <input type="button" value="x"/>

There are no more storage paths to add.

Changed: Provisioning to "Thin Deduplication"

30. In the Boot Settings section, set the **boot mode** from the dropdown list

**Create Server Profile Template** SAN Storage

**Boot Settings**

Manage boot mode

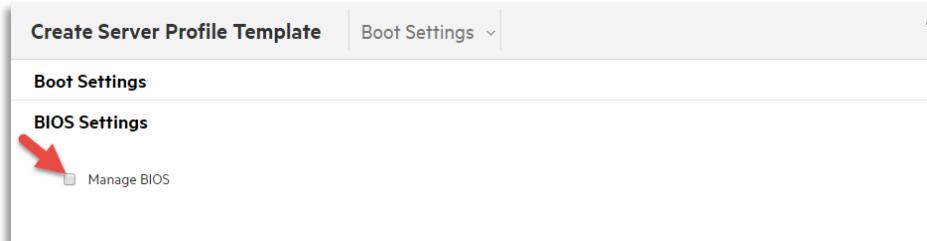
Boot mode: Select mode

**BIOS Settings**

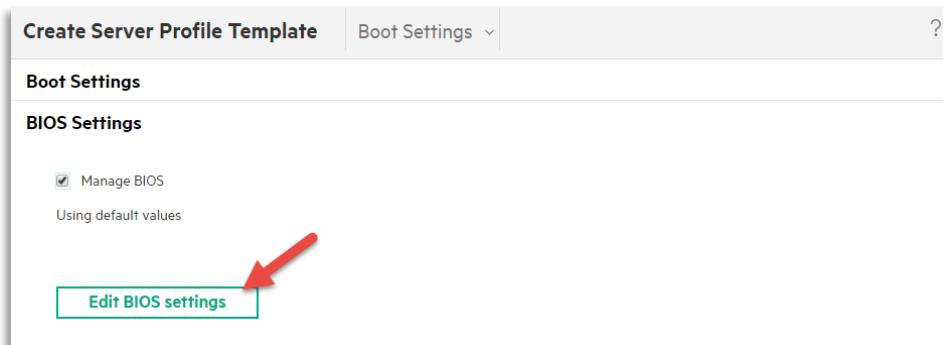
### Warning

Disabling Boot Order in the Server Profile will also disable PXE and FC BfS configuration options.

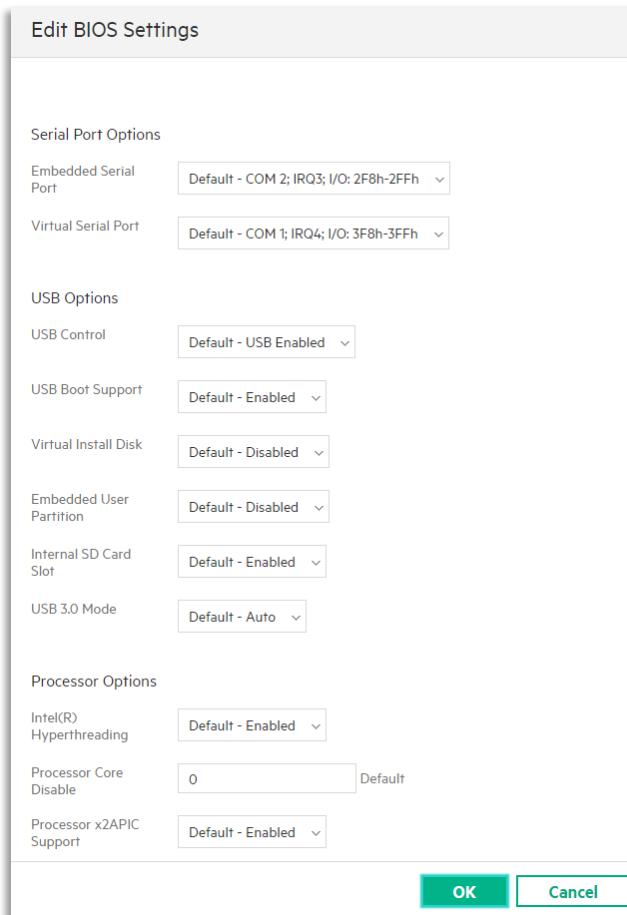
31. In the BIOS Settings section, if desired, **check the box** to Manage the BIOS.



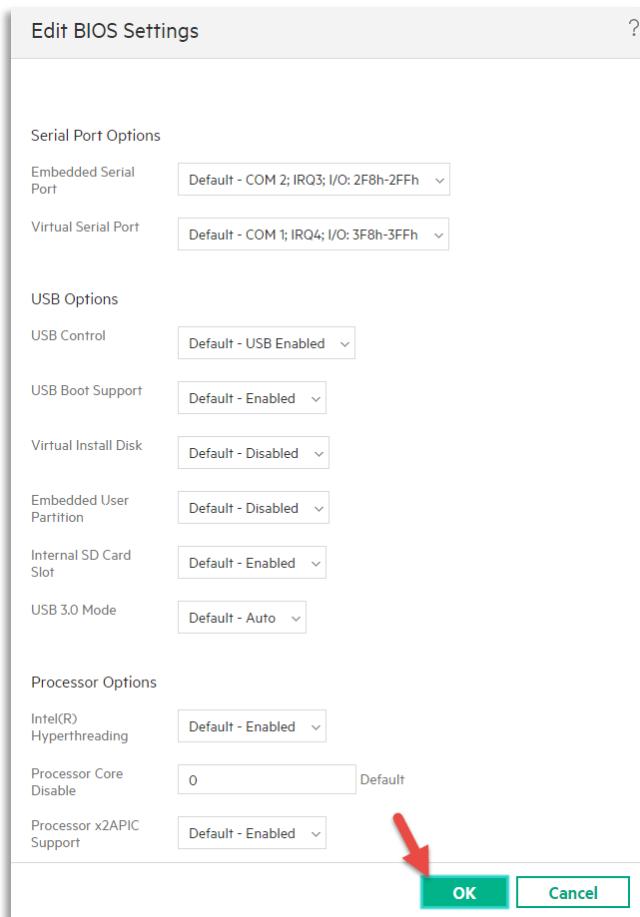
32. Click **Edit BIOS Settings**



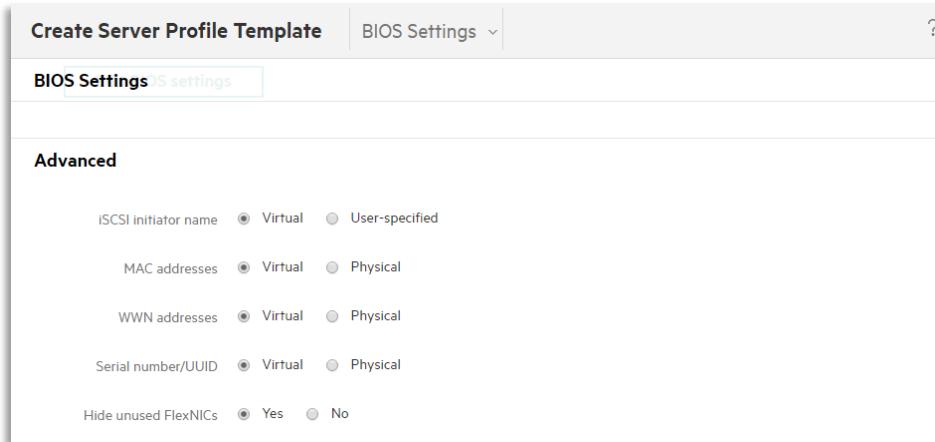
33. In the Edit BIOS settings dialog window, **edit** any desired BIOS settings.



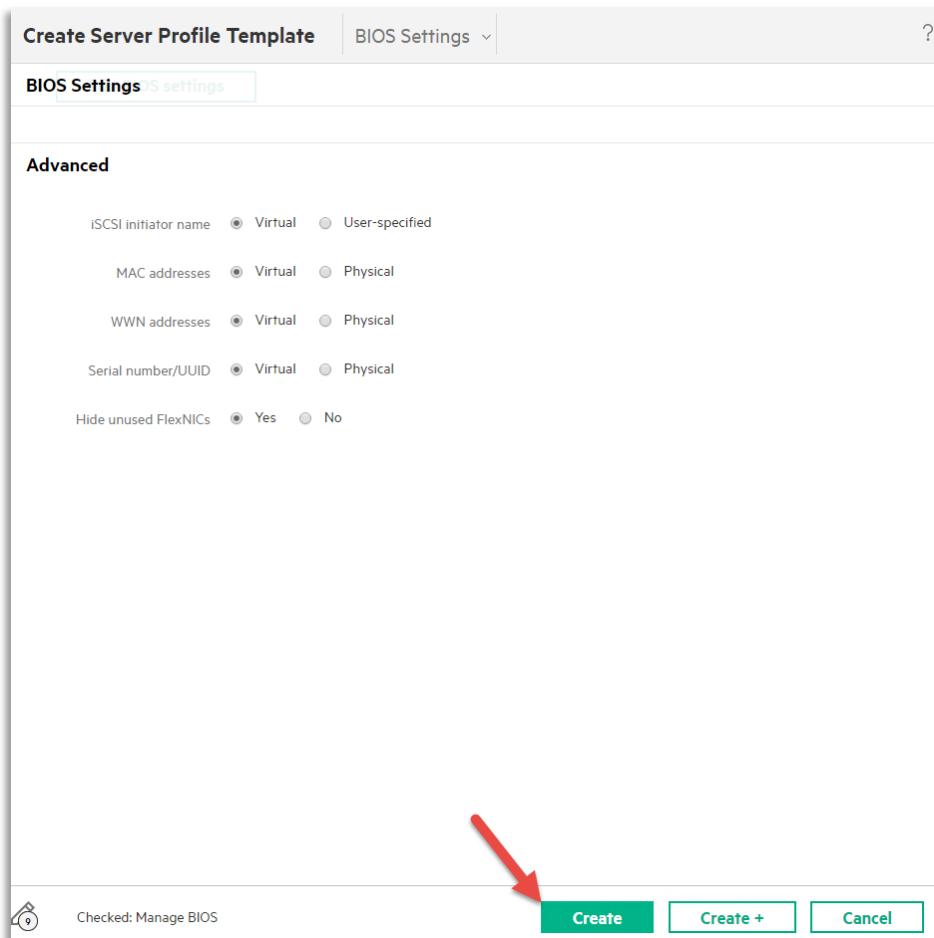
34. In the Edit BIOS settings dialog box, click **OK** after all of the desired BIOS settings are made.



35. The HPE recommendation is to leave the Advanced section as default, which would be Virtual Managed Addresses.



36. Click **Create or Create+**.



## Creating Server Profiles from a Server Profile Template

- From the Top-Level Menu, select **Server Profile Templates**.

The screenshot shows the OneView dashboard with various categories like General, Servers, Hypervisors, Networking, Storage, and Facilities. The 'Server Profile Templates' link under the 'Servers' category is highlighted with a red arrow.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups		
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the left hand menu, select the server profile template to be used.

The screenshot shows the 'Server Profile Templates' details view for a template named 'Demo'. The 'General' tab is selected. The 'Actions' menu on the right is also highlighted with a red arrow.

Name	Description	Server profile description	Server hardware type	Enclosure group	Altiny	Connectors	SAN volume attachments
Demo	Demo	Demo	BL460c Gen11	Demo	Demo	A	managed manually

- From the actions menu on the right hand side, select **Create Server Profile**

The screenshot shows the 'Server Profile Templates' screen in HPE OneView. On the left, there's a list of templates with one selected, 'Demo'. The main area shows the 'General' settings for a new server profile. On the right, there's a list of 'Server Profiles' with a note 'No server profiles'. A red arrow points to the 'Actions' dropdown menu, which includes options like Create, Edit, Copy, Create server profile, and Delete.

4. In the General section of the Create Server Profile dialog window, enter a **Name** and **Description** for the server profile

This screenshot shows the 'Create server profile template' dialog. The 'General' tab is active. The 'Name' field contains 'Demo SP' and the 'Description' field contains 'Demo Server Profile'. A red box highlights these two input fields.

5. Using the dropdown menu, select the **Server Hardware** that the server profile will be assigned to.

This screenshot shows the 'Create server profile template' dialog with the 'General' tab selected. The 'Server hardware type' dropdown is open, displaying a list of options including 'unassigned' and several entries for 'Encl1, bay 11' through 'bay 14', all of which are 'BL460c Gen9 1'. A red arrow points to the dropdown menu.

6. Click **Create** or **Create+** to create the server profile.

General

Name: Demo SP

Description: Demo Server Profile

Server profile template: Demo

Server hardware: Encl1, bay 12

Server hardware type: BL460c Gen9

Enclosure group: Demo

Affinity: Device bay

Firmware

Firmware baseline: Service Pack for ProLiant version 2016.04.0

Installation Method:

- Firmware and OS Drivers using HPE Smart Update Tool
- Firmware only using HPE Smart Update Tool
- Firmware only

Changed: Server hardware to "Encl1, bay 12"

Create

Create +

Cancel

## Assign a Server Profile to a newly discovered server

- From the Top-Level Menu, select **Server Hardware**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnects	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Groups	Storage Systems	Unmanaged Devices
	Enclosures		Logical Interconnects	SANS	
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware Types		Logical Switch Groups		
			Logical Switches		
			Switches		

- From the left hand menu select the server that you want to create a server profile for.

The screenshot shows the HPE OneView interface. On the left, there's a list of server hardware items, one of which is highlighted with a red arrow. On the right, the detailed 'Overview' page for the selected server (IP 172.18.31.3) is displayed. The page includes sections for 'Hardware' and 'Utilization'. The 'Hardware' section provides technical details like model (ProLiant DL360 Gen10), serial number (M9X0000211), and license (HPE OneView Advanced). The 'Utilization' section contains a note about licensing.

### 3. In the Overview section of the server hardware, select **Create Profile**

This screenshot is similar to the previous one, showing the HPE OneView interface. The red arrow now points to the 'Create profile' link within the 'Hardware' section of the server overview page for IP 172.18.31.3.

### 4. Enter a name for the server profile

The screenshot shows the 'Create Server Profile' dialog box in the 'General' tab. The 'Name' field is populated with 'ESX-DL360', which is highlighted with a red box.

### 5. From the drop-down list, select the server profile template to be used

The screenshot shows the 'Create Server Profile' dialog box in the 'General' tab. The 'Server profile template' dropdown is open, showing a search bar and a list with 'None' at the top. A red arrow points to the 'None' option in the list.

### 6. Click create

## Import Hypervisor Manager

- From the Top-Level Menu, select **Hypervisor Manager**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnects	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Users and Groups
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the left hand menu select the **Add hypervisor manager**

- Enter the **name** for the hypervisor manager

Add hypervisor manager

General

Name	vCenter
------	---------

4. Enter the **IP address** of the hypervisor manager

Add hypervisor manager

General

Name	vCenter
IP address or host name	b172classvc.b172.local
Port	443

5. Enter the **credentials** for the hypervisor manager

Add hypervisor manager

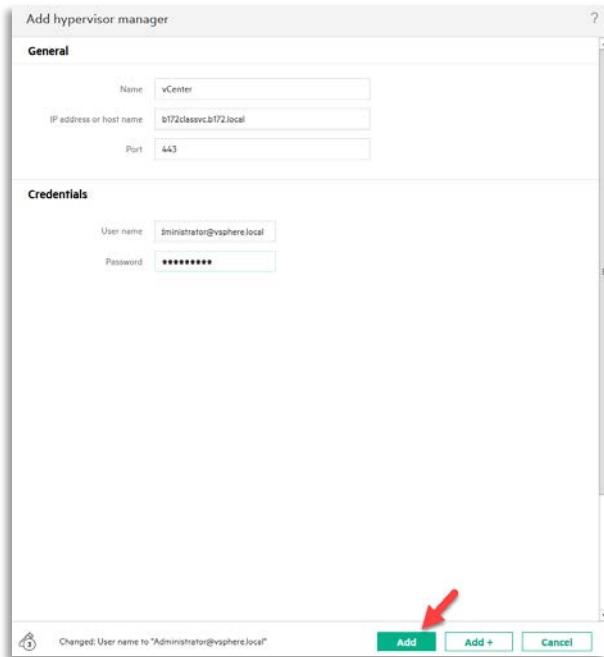
General

Name	vCenter
IP address or host name	b172classvc.b172.local
Port	443

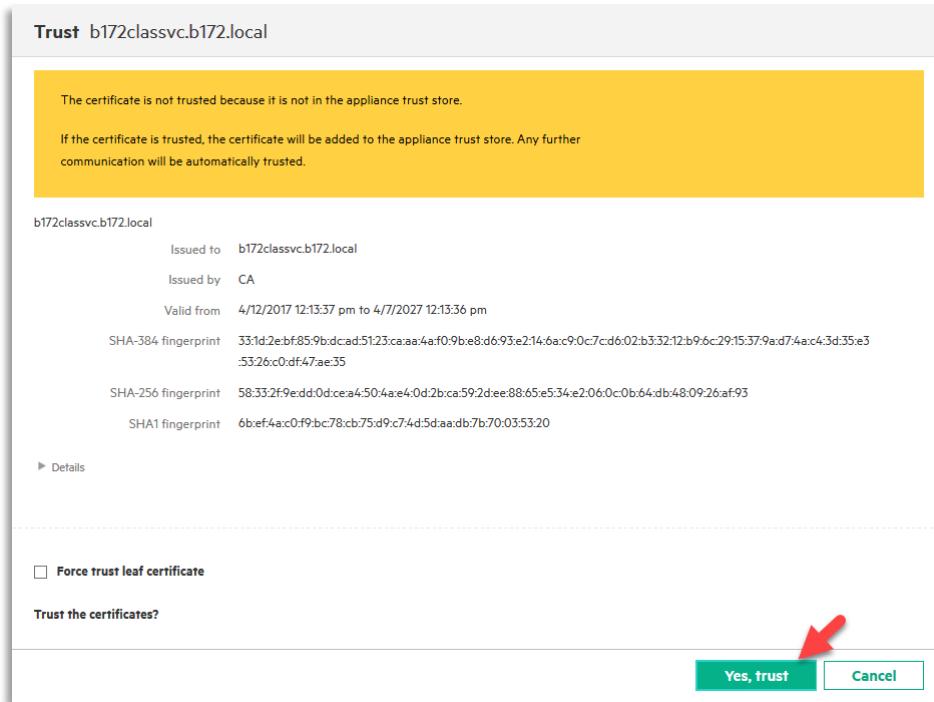
Credentials

User name	jministrator@vsphere.local
Password	*****

6. Click **Add**



#### 7. Accept **Yes, Trust** to accept the certificate from the hypervisor manager



## Create ESX Cluster Profile

- From the Top-Level Menu, select **Hypervisor Cluster Profiles**.

The screenshot shows the HPE OneView web interface. At the top, there's a navigation bar with icons for Home, Overview, and Help. Below it is a main menu with several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under HYPERVISORS, there are sub-options: Hypervisor Cluster Profiles, Hypervisor Profiles, Hypervisor Managers, Networks, Network Sets, Logical Interconnect Groups, Logical Interconnects, Interconnects, Logical Switch Groups, Logical Switches, and Switches. A red arrow points to the 'Networks' option under HYPERVISORS.

2. From the left hand menu select the **Create Hypervisor Cluster Profile**

This screenshot shows the 'Hypervisor Cluster Profiles' list page. It displays two existing profiles: 'ab' (selected) and 'Bay5'. There are buttons for '+ Create hypervisor cluster profile' and '+ Import hypervisor cluster profile'. A red arrow points to the 'Create' button.

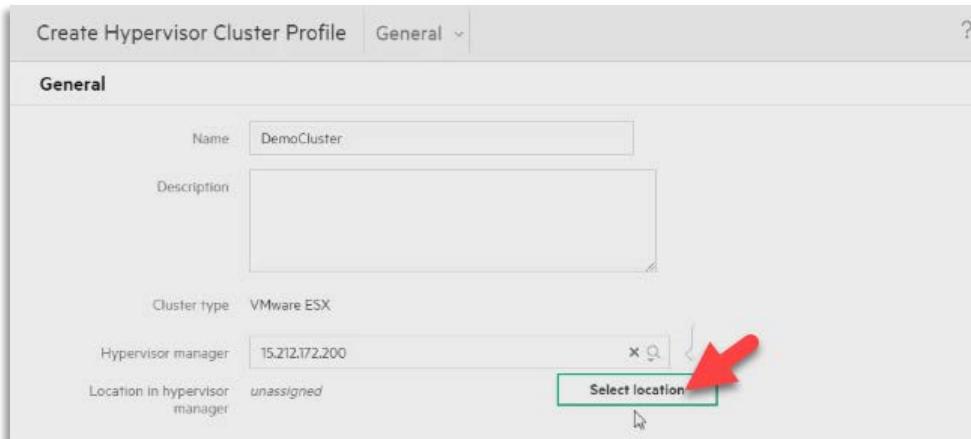
3. Enter a name for the Hypervisor cluster profile

This screenshot shows the 'Create Hypervisor Cluster Profile' dialog box. The 'General' tab is selected. In the 'General' section, there is a 'Name' input field which has 'DemoCluster' typed into it. A red box highlights this input field.

4. Select the Hypervisor manager for the cluster profile

This screenshot shows the 'Create Hypervisor Cluster Profile' dialog box. The 'General' tab is selected. In the 'General' section, there is a 'Hypervisor manager' dropdown menu. A red arrow points to this dropdown menu. The dropdown menu shows 'home' and '15.212.172.200'.

5. Click **Select Location**



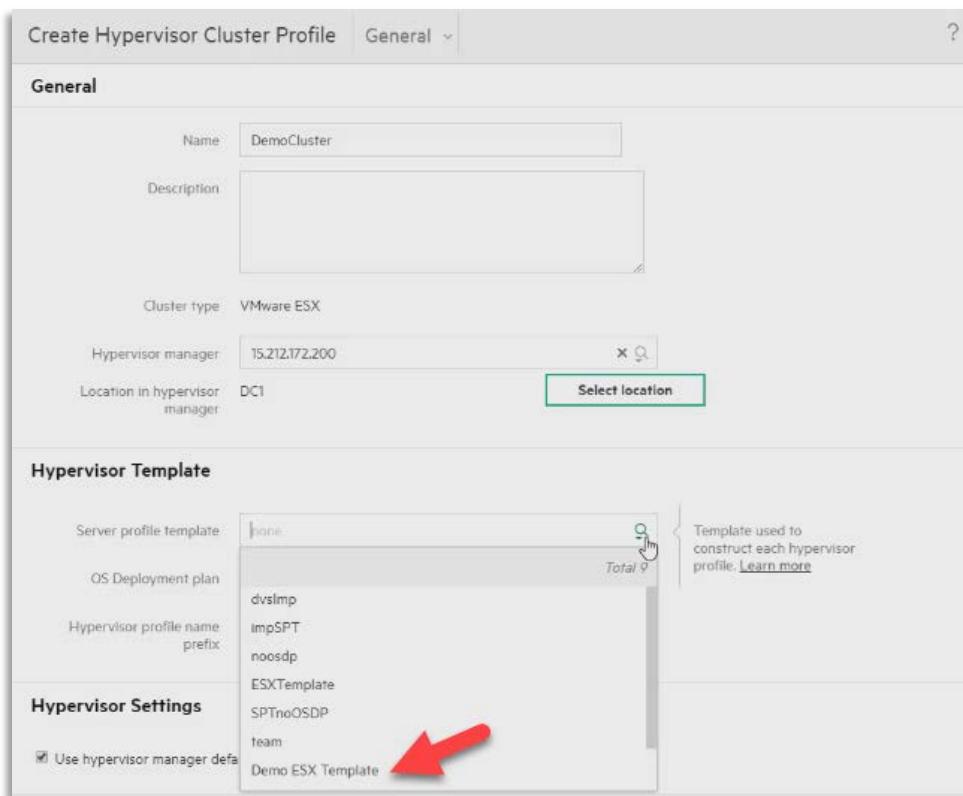
6. In the dialog box, select the location to be used



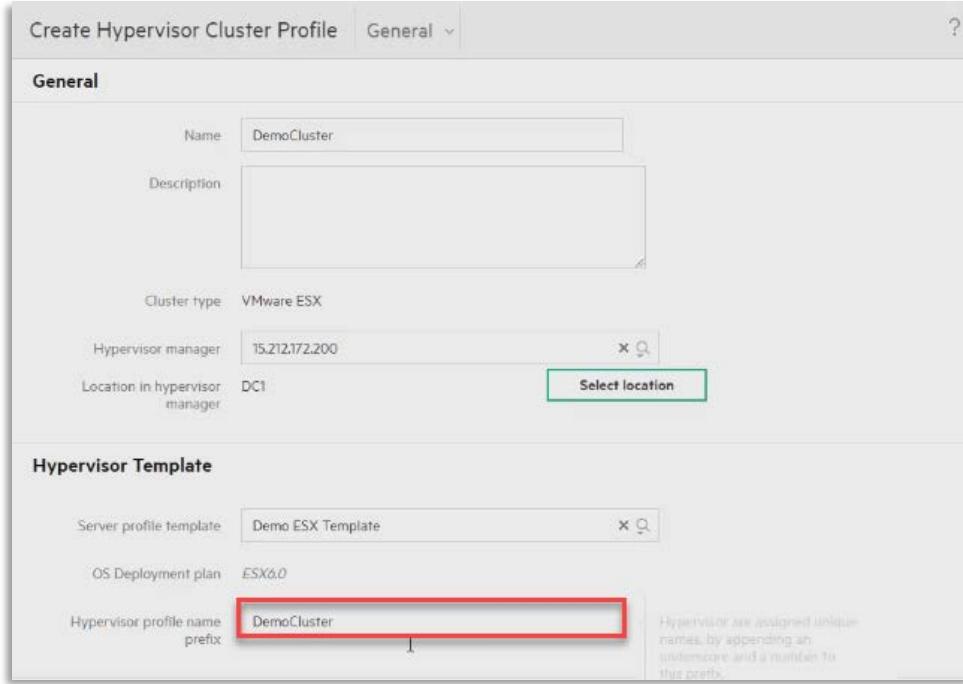
7. Click **OK**



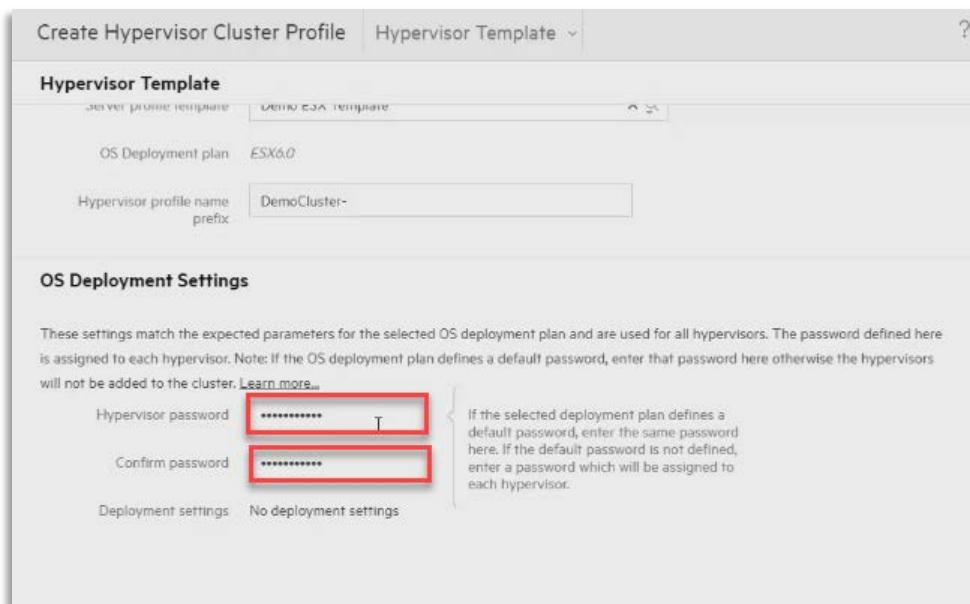
8. Using the drop-down menu, select the **server profile template**



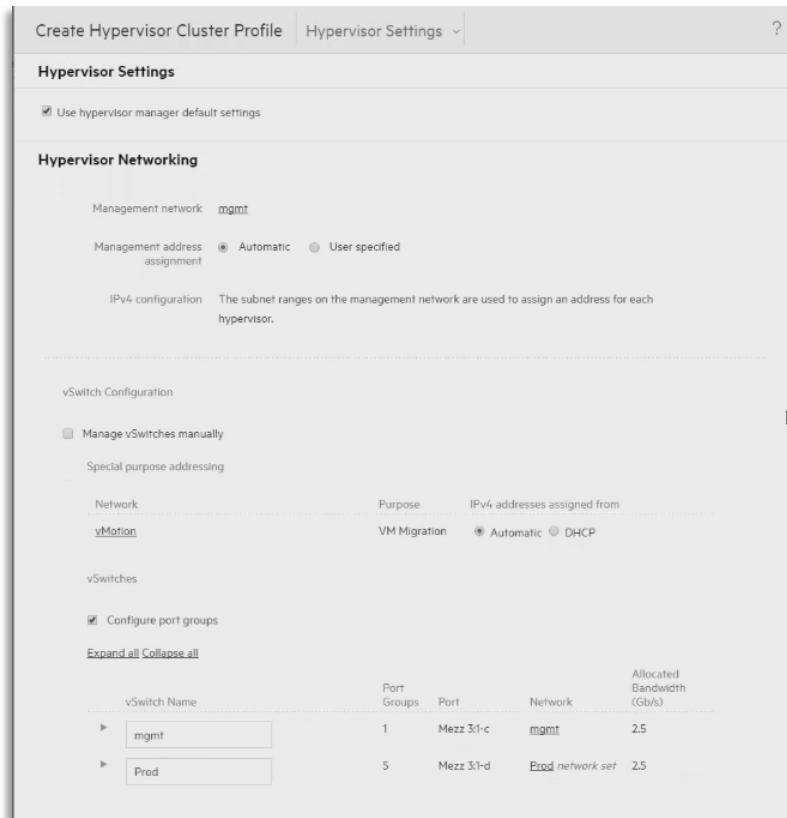
9. Create the prefix that will be used for the Hypervisor profile name



10. (If using Image Streamer otherwise skip) Enter and confirm the Hypervisor Password associated with the Hypervisor Cluster



**11. (If using Image Streamer otherwise skip) Verify and configure the Hypervisor Networking**



**12. In the storage section, use the drop-down list to select the File System to be used**

**Hypervisor Networking**

Purpose	General
VLAN	303
Network	Prod303

**VMkernel Port**

Port group name	vMotion
Purpose	VM Migration
VLAN	200
Network	vMotion

**Storage**

Volume	Size	Provisioning	Defined by	File System
Cluster Shared Storage pending attach	10.00 GiB	Thin	Server profile template	Unmanaged

**Add cluster volume**

13. In the Hypervisors section, click **Add Hypervisors**

**Hypervisor Networking**

Purpose	General
VLAN	303
Network	Prod303

**VMkernel Port**

Port group name	vMotion
Purpose	VM Migration
VLAN	200
Network	vMotion

**Storage**

Volume	Size	Provisioning	Defined by	File System
Cluster Shared Storage pending attach	10.00 GiB	Thin	Server profile template	Unmanaged

**Add cluster volume**

**Hypervisors**

Leave hypervisors in maintenance mode after deployment. [Learn more...](#)

Hypervisors No hypervisors

**Add Hypervisors**

*There is no available server hardware matching the specified server hardware type and enclosure group.*

14. In the Add Hypervisors dialog box, select the hardware to be used (multi-select is supported)

**Add Hypervisors**

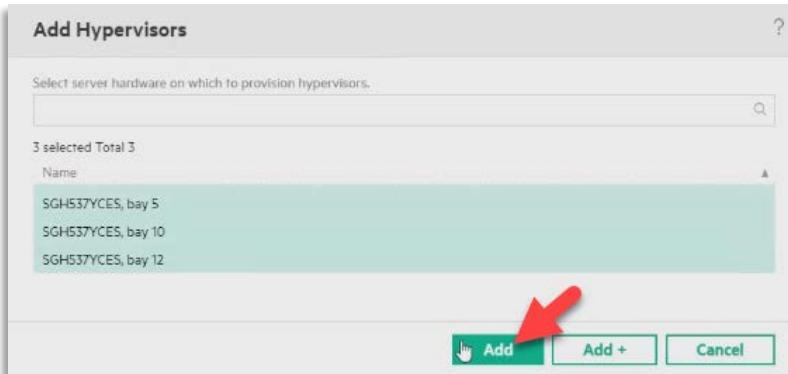
Select server hardware on which to provision hypervisors.

1 selected Total 3

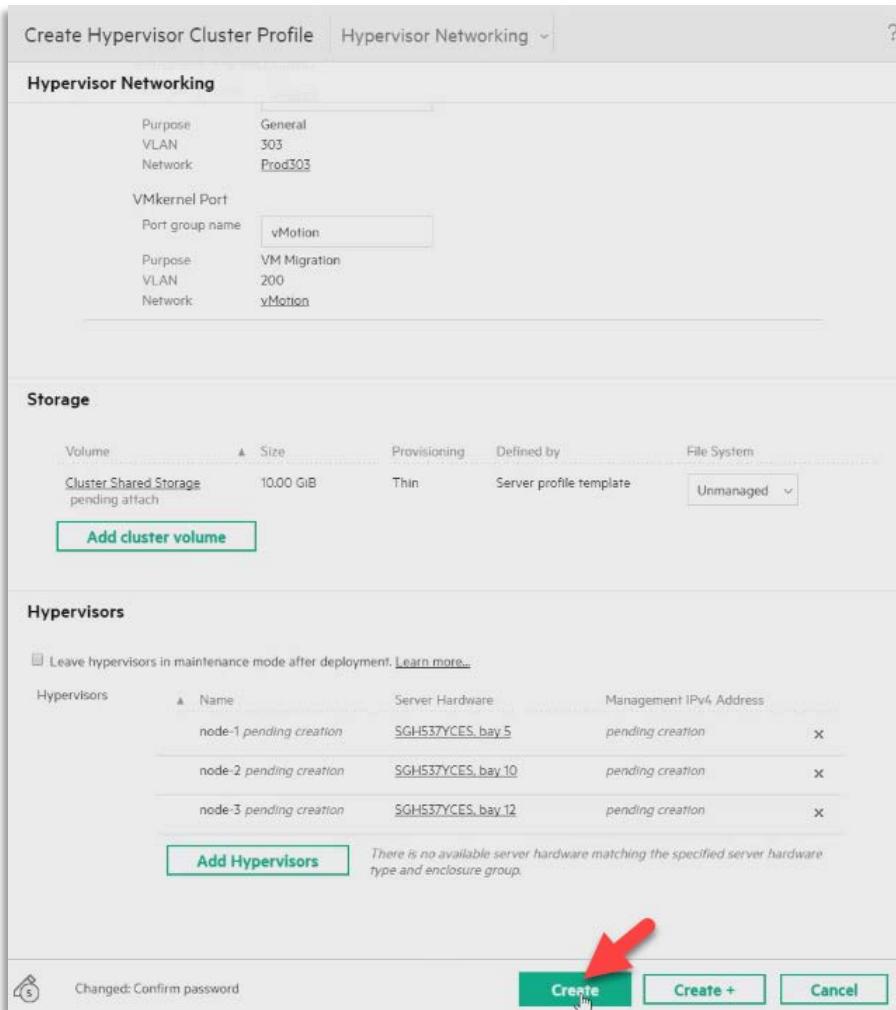
Name

- SGH537YCES, bay 5
- SGH537YCES, bay 10
- SGH537YCES, bay 12a

15. Click **Add** to close the Add Hypervisors dialog box



16. Click **Create** to begin the Cluster Profile Creation Process



## Create One-Off Server Profile

1. From the Top-Level Menu, select **Server Profiles**.

The screenshot shows the HPE OneView interface with the 'HYPERVISORS' tab highlighted in blue. A red arrow points to the 'HYPERVISORS' tab, which is part of the 'SOURCES' category. Below the tabs, there are several sub-options: Hypervisor Cluster Profiles, Hypervisor Profiles, Hypervisor Managers, Networks, Network Sets, Logical Interconnect, Logical Enclosures, Enclosures, Rack Managers, Server Hardware, and Types.

2. Once on the Server Profiles screen, select the **+Create Profile** button

The screenshot shows the 'Server Profiles' screen in HPE OneView. A red arrow points to the '+ Create profile' button in the top-left corner of the main content area. The page displays a single server profile named 'Demo SP' with its details: Description: Demo Server Profile, Server profile template: Demo, and Server hardware: Enc11.bay12. On the right side, there's a 'Firmware' section with a status message: 'Service Pack for ProLiant version 2018.04.0'.

3. In the General section of the server profile creation page, provide a **Name** and **Description** for the Server Profile.

The screenshot shows the 'Create Server Profile' dialog. The 'General' tab is selected. The 'Name' field contains 'Demo SP' and the 'Description' field contains 'Demo template'. Both fields are highlighted with a red border.

4. In the Server Profile section, enter a **description** for the server profile.

The screenshot shows the 'Server Profile' section of the dialog. The 'Server profile description' field contains 'Demo template', which is highlighted with a red border.

5. Select the **Server Hardware** that the profile will be applied to using the dropdown menu.

The screenshot shows the 'Create Server Profile' dialog with the 'General' tab selected. The 'Server hardware' dropdown menu is open, showing a list of options: unassigned, 172.18.6.31, Enc11, bay 1, Enc11, bay 2, Enc11, bay 3, DL360 Gen9 1, BL660c Gen9 1, BL660c Gen9 1, and BL460c Gen8 1. A red arrow points to the 'BL660c Gen9 1' option in the list.

6. Specify the **Affinity** method you'd like to configure.

**General**

Name	One Off
Description	One Off Server Profile
Server hardware	EnclI, bay 2 <input type="button" value="x"/> <input type="button" value="?"/>
Server hardware type	BL660c Gen9
Enclosure group	Demo
Affinity	<input checked="" type="radio"/> Device bay <input type="radio"/> Device bay + server hardware



7. In the firmware section, select a **Firmware Baseline** from the dropdown menu.

**Firmware**

Firmware baseline	<input checked="" type="radio"/> managed manually <input type="radio"/> managed automatically
Service Pack for ProLiant version 2016.04.0 	

8. Once a baseline is selected, choose how the baseline will be applied to the server. If either of the options using the HPE Smart Update Tools is selected then the firmware or driver updates will be done while the systems are online. If the firmware only option is selected then the firmware will be updated offline using Intelligent Provisioning.

**Firmware**

Firmware baseline	Service Pack for ProLiant version 2016.04.0 <input type="button" value="..."/>	 <a href="#">Add firmware bundles for selection.</a>
Installation Method	<input checked="" type="radio"/> Firmware and OS Drivers using HPE Smart Update Tool <input type="radio"/> Firmware only using HPE Smart Update Tool <input type="radio"/> Firmware only	
To limit disruption during future firmware updates, select a Smart Update option. Without Smart Update, the server hardware must be powered off. <a href="#">Learn more</a>		
<input type="checkbox"/> Force installation		

9. In the connections section, click **Add Connection**.

**Connections**

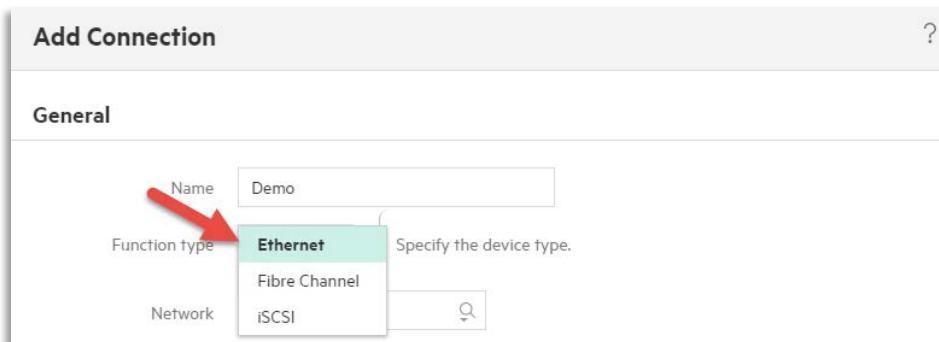
<input style="background-color: #00AEEF; color: white; border: 1px solid #00AEEF; padding: 5px; width: 150px; height: 30px; font-weight: bold; font-size: 14px; text-decoration: none; margin-bottom: 10px;" type="button" value="Add Connection"/>
---

10. In the Add Connection dialog window, enter a **name** for the connection

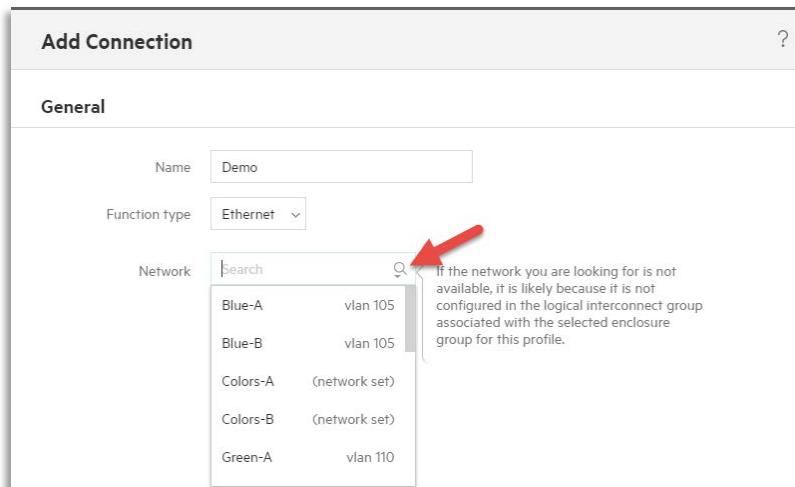
**Add Connection**

<b>General</b>	
Name	<input type="text" value="Demo"/>

11. Using the dropdown list select the function type for the connection

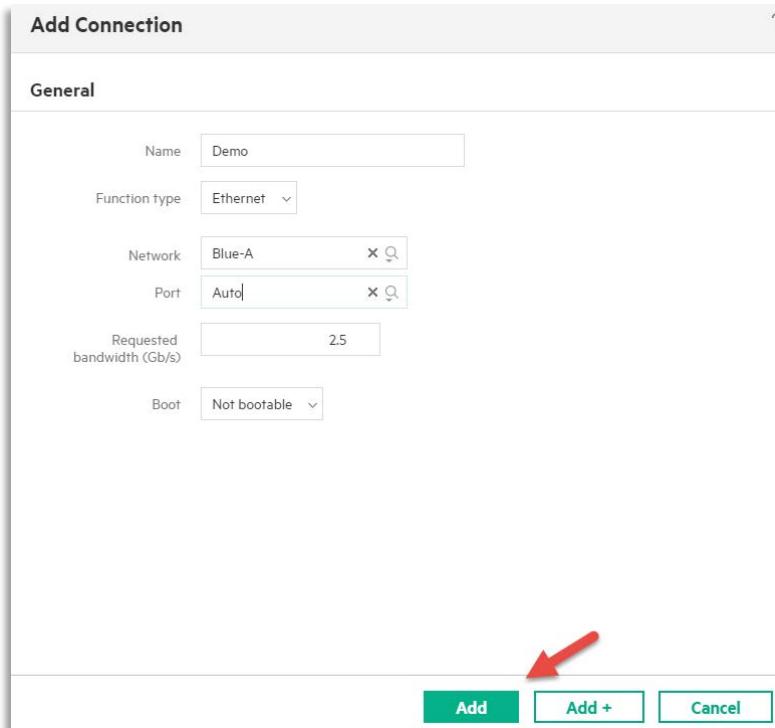


12. Select the network to be associated with the function using the Network dropdown list



13. Set the function type specific parameters

14. Click the **Add** to close the Add Connection dialog window or **Add+** button to continue adding Network Connections to the Server Profile.



**Note**

The *Use user-specified IDs* is for those customers that wish to provide their own MAC or WWN address for that connection.

**Note**

You can specify which FlexNIC to assign the Network Connection to or leave it at the default of Auto. Auto will apply the same Network Connection to Adapter mapping Virtual Connect does today. Do know that you cannot create a FlexNIC B, C or D without first creating FlexNIC A.

15. (Optional) Adding *Fibre Channel Networks* is a similar operation as an Ethernet Device Type. FlexNIC B is reserved for FC Connections when FC Connection Types are added to the *Server Profile*. When choosing the FlexNIC, you can leave the default *Auto*. You can force the FlexNIC assignment, but the list will be filtered based on the connection location to the Interconnect Bay the FC Network is assigned to.

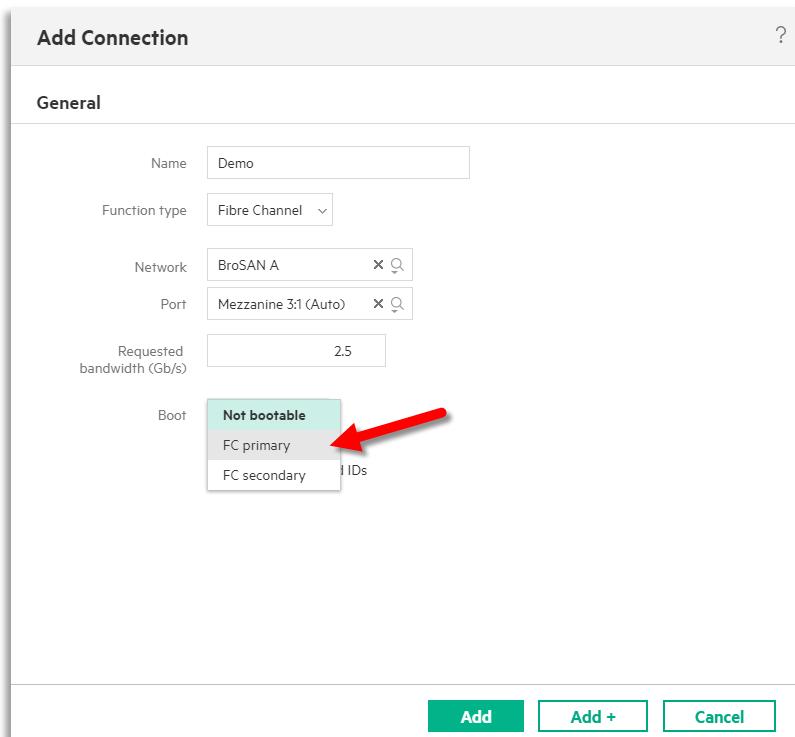
**Add Connection**

**General**

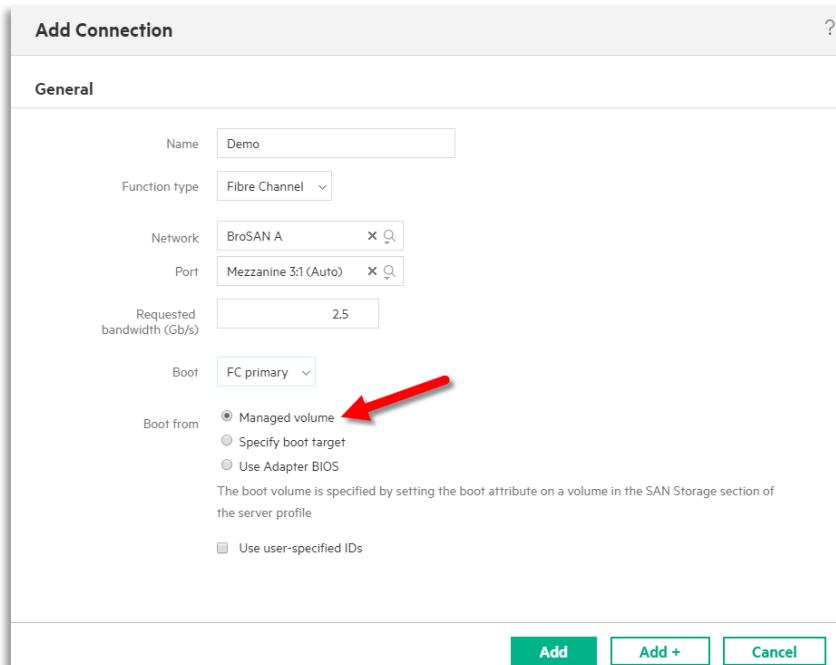
Name	Demo
Function type	Fibre Channel
Network	SAN_A
Port	Auto
Requested bandwidth (Gb/s)	2.5
Boot	Not bootable

**Add** **Add +** **Cancel**

- A. (Optional) If you wish to configure FC Boot From SAN (BFS), change the *Boot* setting from *Not Bootable* to either *Primary* or *Secondary*.



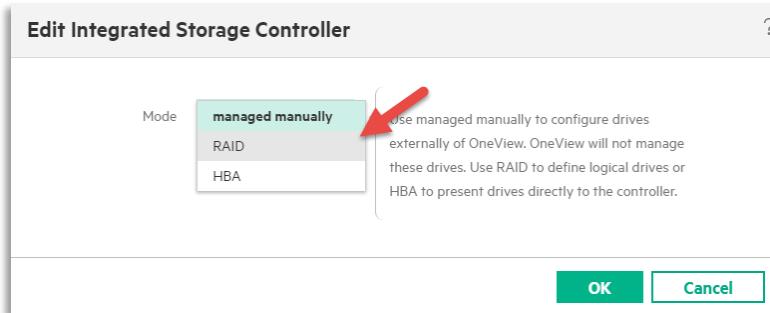
16. Select the connection's boot source, here selected to be a managed SAN volume. Later in the SAN storage configuration section you can select which managed volume will be configured as the boot volume.



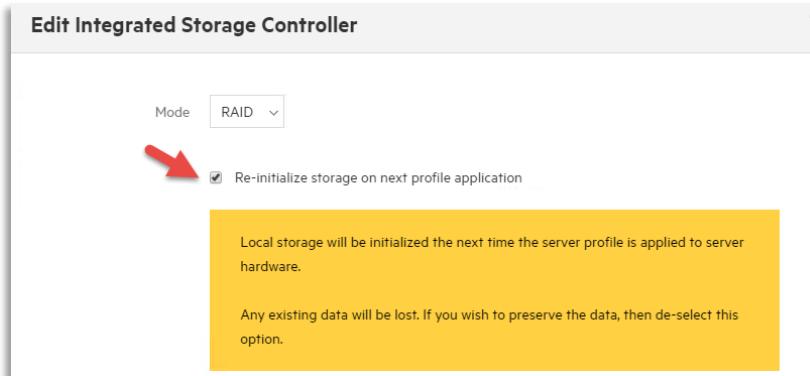
17. If desired, enable local storage management by editing the edit option.



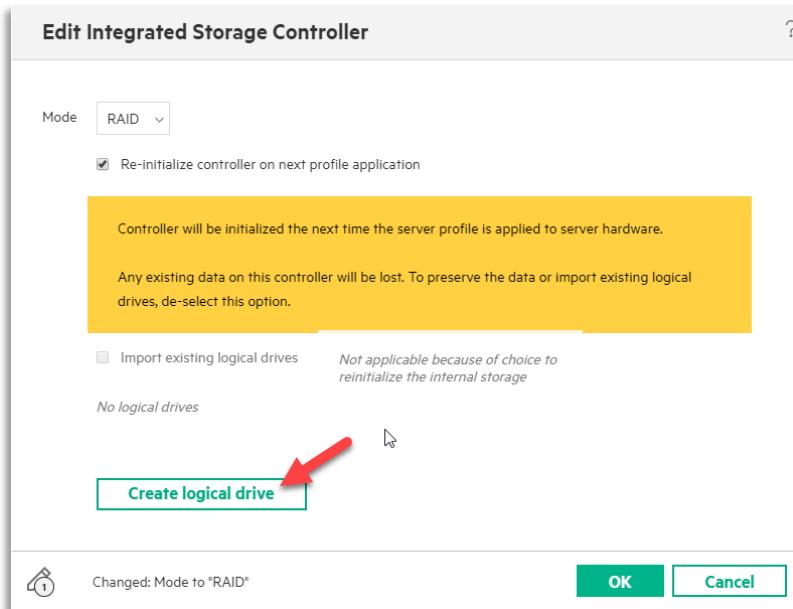
18. In the Edit Integrated Storage Controller dialog box, select the mode of the storage controller using the dropdown list



19. Enable or disable the option to Re-initialize storage on next profile application. A warning will be shown about this option



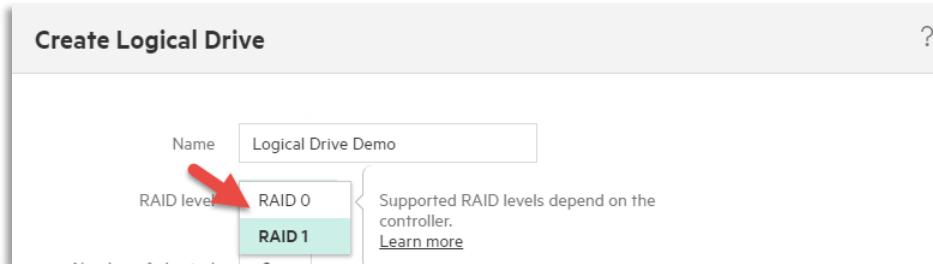
20. Click **Create logical drive**



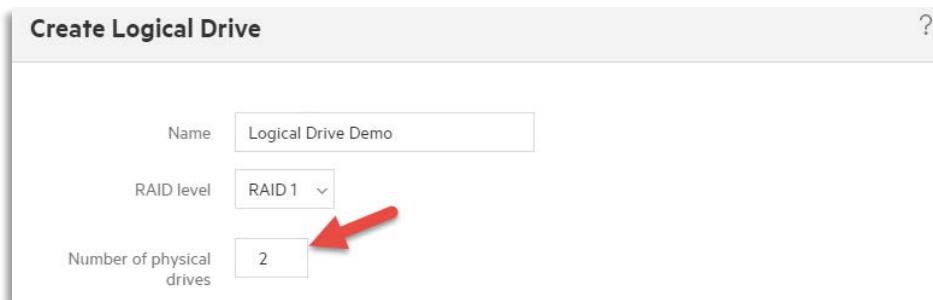
21. In the Create Logical Drive dialog window, enter a **Name** for the logical drive



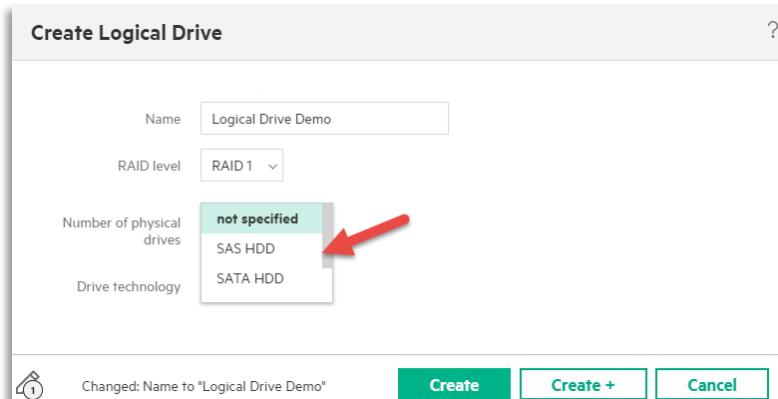
22. Select the **RAID Level** for the logical drive



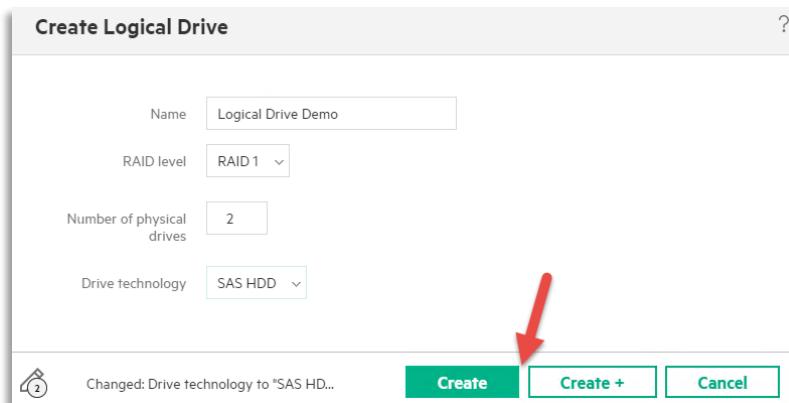
23. Select the **number of drives** for that RAID set



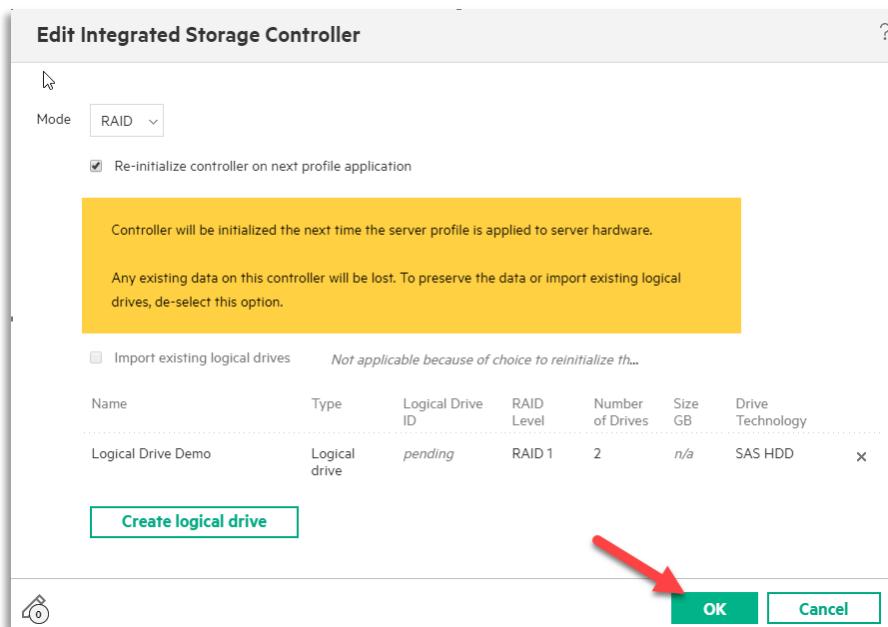
24. Select the **drive technology** of that RAID set.



25. Click **Create or Create+** to create the logical drive for the server profile.



26. Once all of your logical drives are created, click **OK** to finish configuring the Integrated Storage Controller.



27. If desired, select the box to enable the Local Storage as the boot device

28. Enable SAN Storage if necessary.

A. **Check the box for Manage SAN Storage**

B. Specify the **Host OS Type**, which controls the Host's OS/personna created on the HPE 3PAR StoreServ storage system.

C. Click the **Add Volume** button to display the list of volumes available for assignment.



- D. In the Add Volume dialog window, select **Volume Type** from the drop down list



- E. If creating a new volume, select a volume template or storage pool to create from and select the desired volume settings. If the volume is to be configured as the boot volume, that can be configured as well.

**Add Volume**

### General

Type: New volume

Name: myData-vol

Description:

Scope: none

Volume template: None

Filter templates by defined connections

Storage pool: fast-ssd-cpg

Filter pools by defined connections

Boot: Yes

LUN:  Auto  Manual

### Volume properties

Capacity: 100 GiB

Sharing: Private

Permanent

### Advanced

Provisioning: Thin Deduplication

Snapshot storage pool: fast-ssd-cpg

Filter snapshot pools by defined connections

Changed: Capacity to "100"

Add Add + Cancel

F. If using an existing volume, select the Volume using the dropdown list or the SmartSearch feature.

**Add Volume**

### General

Type: Existing volume

Name: Search

Filter volumes by defined connections

G. Once the Volume has been selected or configured, the default Storage Paths will be displayed. You can disable, remove or add Storage Paths. Click **Add** or **Add+** to add the volume.

**Add Volume**

Scope	none
Volume template	None <input type="button" value="x"/> <input type="button" value="Q"/>
<input checked="" type="checkbox"/> Filter templates by defined connections	
Storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>
<input checked="" type="checkbox"/> Filter pools by defined connections	
Boot	Yes <input type="button" value=""/>
LUN	<input checked="" type="radio"/> Auto <input type="radio"/> Manual

**Volume properties**

Capacity	100 <input type="button" value=""/> GiB
Sharing	Private
<input checked="" type="checkbox"/> Permanent	

**Advanced**

Provisioning	Thin Deduplication <input type="button" value=""/>
Snapshot storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>
<input checked="" type="checkbox"/> Filter snapshot pools by defined connections	

**Storage paths**

Connection ID	Network	Storage Targets	Enabled
1	BroSAN A	Fabric attach pending assignment <input type="button" value=""/> <input checked="" type="checkbox"/> <input type="button" value="x"/>	
2	BroSAN B	Fabric attach pending assignment <input type="button" value=""/> <input checked="" type="checkbox"/> <input type="button" value="x"/>	

*There are no more storage paths to add.*

<input type="button" value="Add storage path"/>	<input style="border: 2px solid green; background-color: #00AEEF; color: white; padding: 2px 10px; border-radius: 5px; font-weight: bold; text-decoration: none; text-align: center; width: 150px; height: 30px; vertical-align: middle;" type="button" value="Remove all"/>
---	--

Changed: Capacity to "100"

H. (optional) If configuring boot from a managed SAN volume, select the volume the server will be configured to boot from either on the volume itself, or here in the profile's list of SAN storage volumes.

29. In the Boot Settings section, set the **boot mode** from the dropdown list

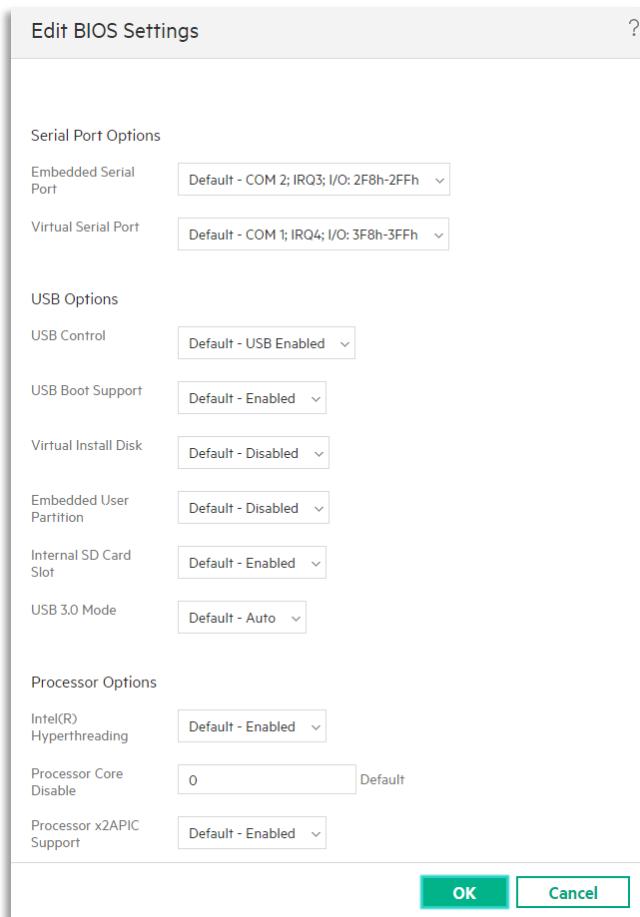
#### Warning

Disabling *Boot Order* in the Server Profile will also disable PXE and FC BfS configuration options.

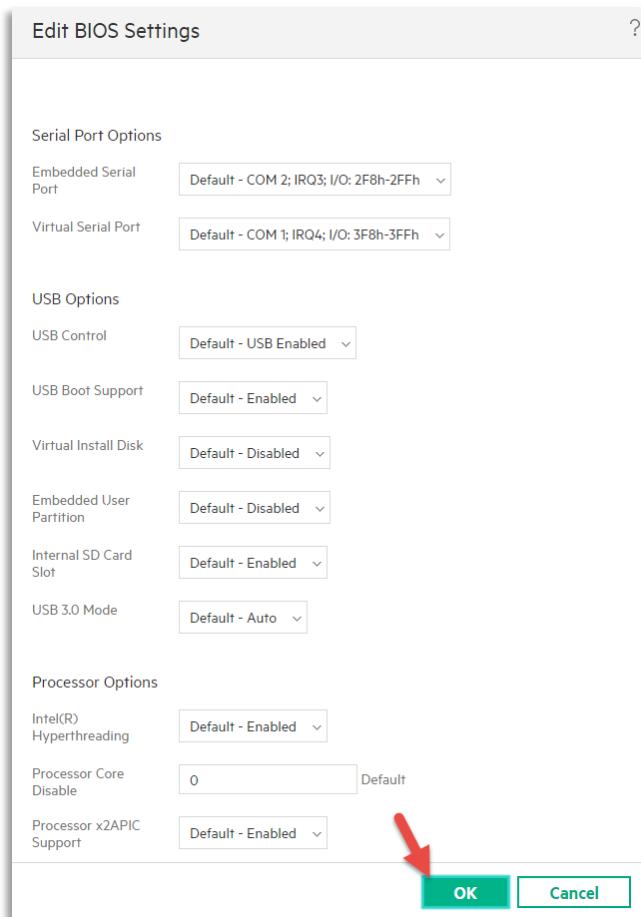
30. In the BIOS Settings section, if desired, **check the box** to Manage the BIOS.

31. Click **Edit BIOS Settings**

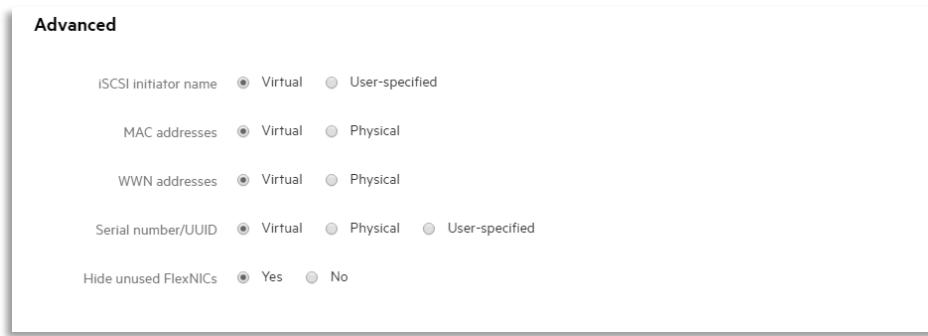
32. In the Edit BIOS settings dialog window, **edit** any desired BIOS settings.



33. In the Edit BIOS settings dialog box, click **OK** after all of the desired BIOS settings are made.



34. The HPE recommendation is to leave the Advanced section as default, which would be Virtual Managed Addresses.



35. Click **Create or Create+**.

The screenshot shows the 'Create Server Profile' dialog with the 'Boot Settings' tab selected. It includes sections for BIOS Settings and Advanced options, and ends with a 'Create' button highlighted by a red arrow.

## Create a Server Profile for Gen9 or newer DL Servers

Network configuration (Ethernet or Fibre Channel) is not supported with Gen9 or newer DL servers.

- From the Top-Level Menu, select **Server Profiles**.

The screenshot shows the OneView navigation menu with the 'Server Profiles' option under the 'Servers' category highlighted by a red arrow.

- Click the **+Add Server Profile** button.

The screenshot shows the 'Create profile' dialog for a new server profile named 'Demo SP'. The 'Create profile' button is highlighted by a red arrow.

- In the General section of the server profile creation page, provide a **Name** and **Description** for the Server Profile.

The screenshot shows the 'Create Server Profile' interface with the 'General' tab selected. It includes fields for 'Name' and 'Description', both of which are highlighted with red boxes.

4. In the Server Profile section, enter **description** for the server profile.

The screenshot shows the 'Server Profile' tab with the 'Server profile description' field containing the value 'Demo template', which is highlighted with a red box.

5. Select the **Server Hardware** that the profile will be applied to using the dropdown menu.

The screenshot shows the 'Create Server Profile' interface with the 'General' tab selected. The 'Server hardware' dropdown menu is open, showing options like 'unassigned', '172.18.6.31', 'EnclI, bay 1', 'EnclI, bay 2', and 'EnclI, bay 3'. A red arrow points to the option 'DL360 Gen9 1'. The 'Firmware' tab is also visible at the bottom.

Note: *Enclosure Group* and *Affinity* are not available for DL servers.

The screenshot shows the 'Create Server Profile' interface with the 'General' tab selected. Fields for 'Enclosure group' and 'Affinity' are highlighted with red boxes and contain the message 'not supported for this server hardware type'. Other fields like 'Name' and 'Description' are present but not highlighted.

6. In the firmware section, select a **Firmware Baseline** from the dropdown menu.

The screenshot shows the 'Firmware' tab with the 'Firmware baseline' dropdown menu open. The option 'managed manually' is highlighted with a red box and has a red arrow pointing to it. A tooltip says 'Select the appliance. No baseline is selected for selection.' Below it, another option 'Service Pack for ProLiant version 2016.04.0' is visible.

7. Once a baseline is selected, choose how the baseline will be applied to the server. If either of the options using the *HPE Smart Update Tools* is selected then the firmware or driver updates will be done while the systems are online. If the *firmware only* option is selected then the firmware will be updated offline using Intelligent Provisioning.

Firmware baseline: Service Pack for ProLiant version 2016.04.0

No firmware bundles on the appliance.  
[Add firmware bundles for selection.](#)

Installation Method:  Firmware and OS Drivers using HPE Smart Update Tool  
 Firmware only using HPE Smart Update Tool  
 Firmware only

To limit disruption during future firmware updates, select a Smart Update option. Without Smart Update, the server hardware must be powered off. [Learn more](#)

Force installation

8. If desired, enable local storage management by editing the **edit option**.

Local Storage

Integrated storage controller mode: managed manually

9. In the Edit Integrated Storage Controller dialog box, select the **mode of the storage controller** using the dropdown list

Edit Integrated Storage Controller

Mode: **managed manually** (selected)  
RAID  
HBA

Use managed manually to configure drives externally of OneView. OneView will not manage these drives. Use RAID to define logical drives or HBA to present drives directly to the controller.

OK Cancel

10. Enable or disable the option to Re-initialize storage on next profile application. A warning will be shown about this option

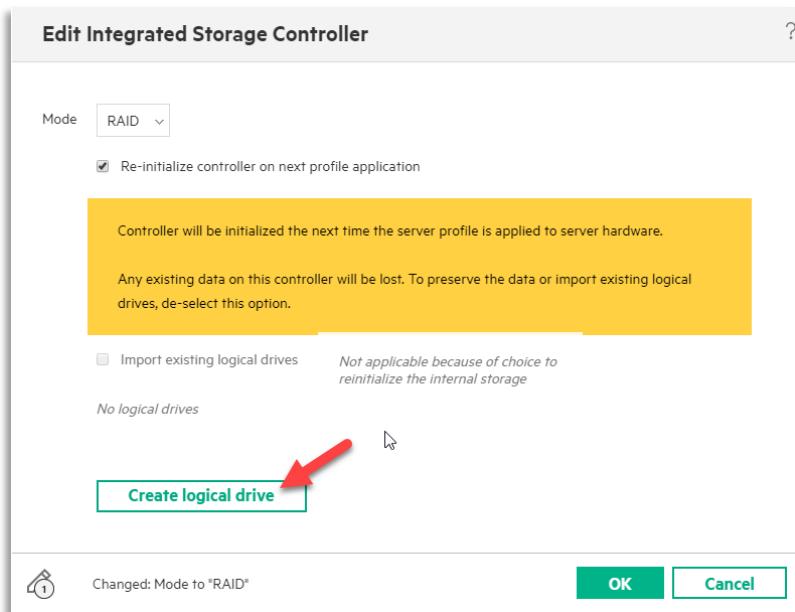
Edit Integrated Storage Controller

Mode: RAID

Re-initialize storage on next profile application

Local storage will be initialized the next time the server profile is applied to server hardware.  
Any existing data will be lost. If you wish to preserve the data, then de-select this option.

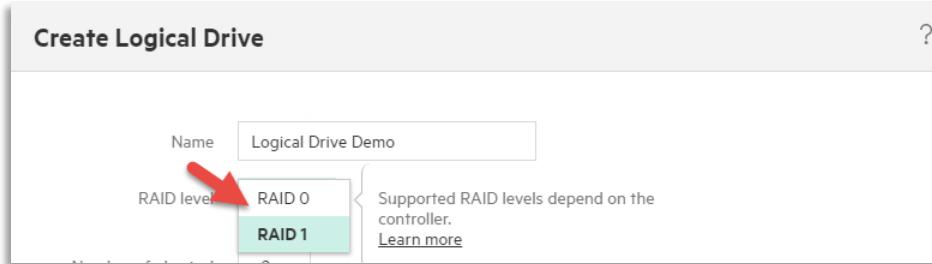
11. Click **Create logical drive**



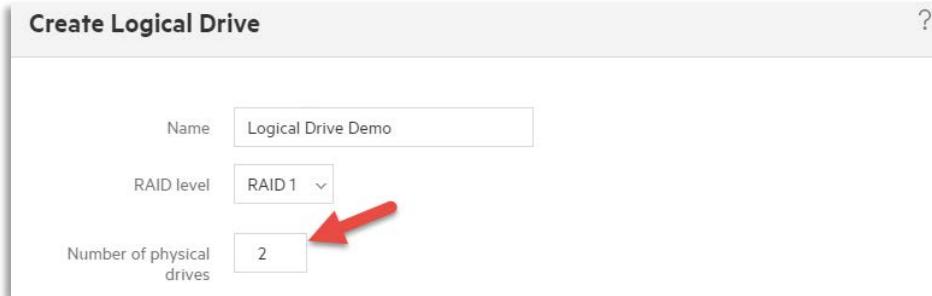
12. In the Create Logical Drive dialog window, enter a **Name** for the logical drive



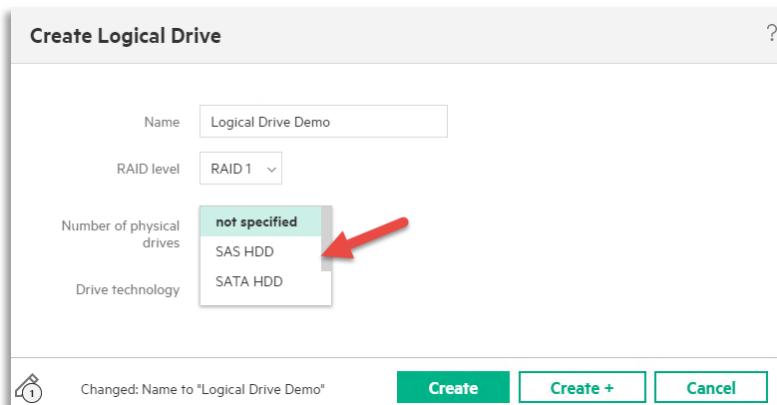
13. Select the **RAID Level** for the logical drive



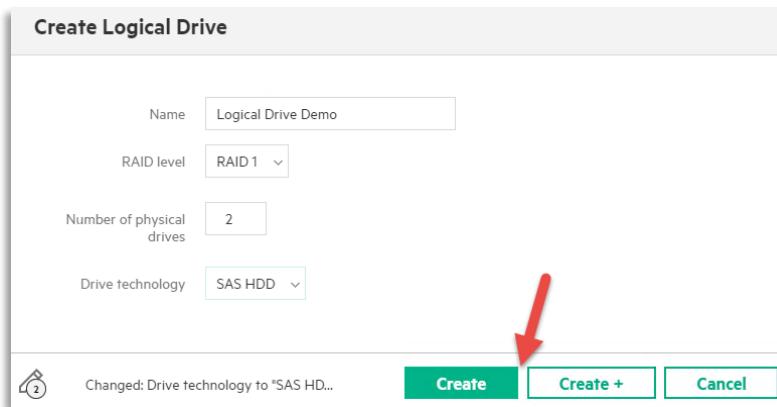
14. Select the **number of drives** for that RAID set



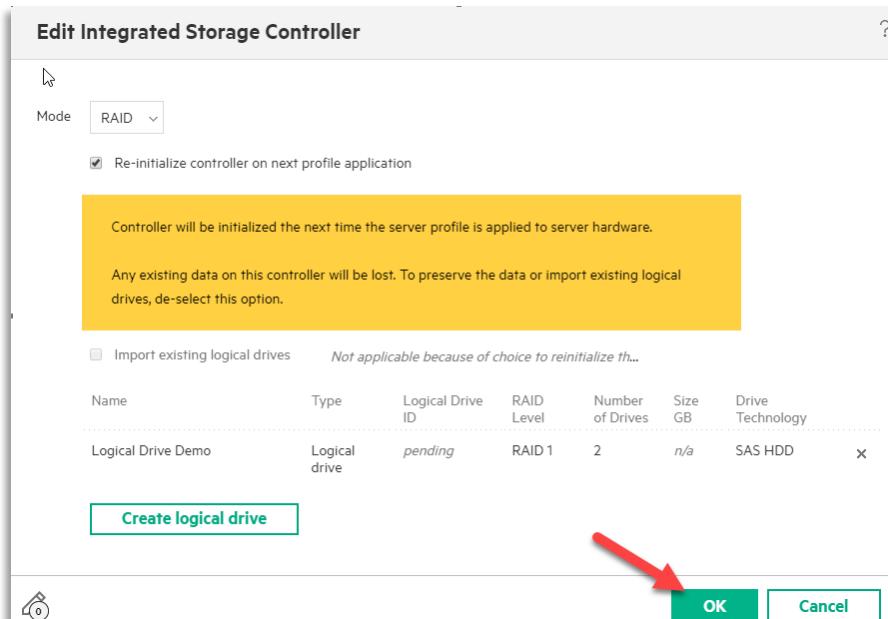
15. Select the **drive technology** of that RAID set.



16. Click **Create or Create+** to create the logical drive for the server profile.



17. Once all of your logical drives are created, click **OK** to finish configuring the Integrated Storage Controller.



18. In the Boot Settings section, set the **boot mode** from the dropdown list

**Boot Settings**

Manage boot mode

Boot mode

Select mode

- UEFI
- UEFI optimized
- Legacy BIOS

BIOS Settings

Changing the Boot Mode can impact the ability of the server to boot the installed operating system. An operating system is installed in the same mode as the platform during the installation. If the Boot Mode does not match the operating system

**Warning**

Disabling Boot Order in the Server Profile will also disable PXE and FC BfS configuration options.

19. In the BIOS Settings section, if desired, **check the box** to Manage the BIOS.

**BIOS Settings**

Manage BIOS

20. Click **Edit BIOS Settings**

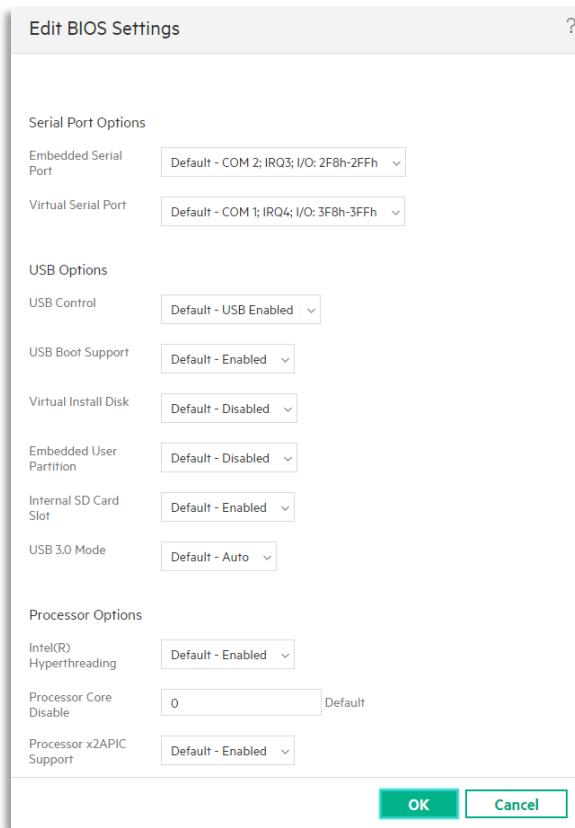
**BIOS Settings**

Manage BIOS

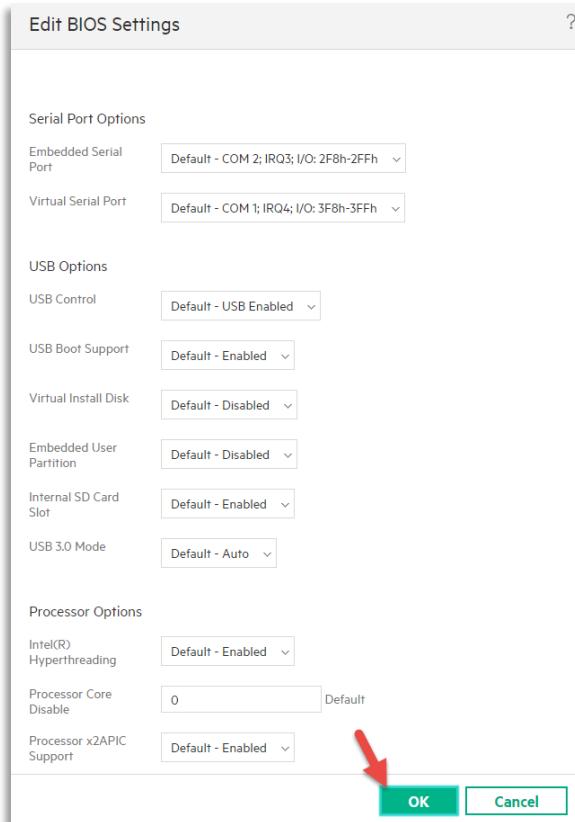
Using default values

**Edit BIOS settings**

21. In the Edit BIOS settings dialog window, **edit** any desired BIOS settings.



22. In the Edit BIOS settings dialog box, click **OK** after all of the desired BIOS settings are made.



23. Click **Create** or the **Create+** button.

## Create a Server Profile for Gen8 Servers

HPE OneView has basic Server Profile support for the DL360 and DL380 Gen8 platforms. Only BIOS and Firmware management are supported with these platforms.

- From the Top-Level Menu, select **Server Profiles**.

The screenshot shows the OneView navigation menu. The 'Server Profiles' link under the 'Servers' category is highlighted with a red arrow. Other categories like General, Hypervisors, Networking, Storage, and Facilities are also visible.

- Click the **+Add Server Profile** button.

The screenshot shows the 'Create profile' page. A red box highlights the 'Name' field, which contains 'Demo SP'. The 'Description' field below it is also highlighted with a red box and contains 'Demo Server Profile'.

- In the General section of the server profile creation page, provide a **Name** and **Description** for the Server Profile.

The screenshot shows the 'Create Server Profile' dialog with the 'General' tab selected. The 'Name' field and 'Description' field are both highlighted with red boxes.

- In the Server Profile section, enter a **description** for the server profile.

The screenshot shows the 'Server Profile' section. The 'Server profile description' field contains 'Demo template', which is highlighted with a red box.

- Select the **Server Hardware** that the profile will be applied to using the dropdown menu.

The screenshot shows the 'General' tab of the server profile creation dialog. The 'Server hardware' dropdown is open, displaying a list of options. The 'DL360p Gen8 1' option is highlighted with a red arrow.

Note: Enclosure Group and Affinity are not available for DL servers.

**General**

Name	DL Gen8
Description	DL Gen8 Template
Server hardware	172.18.6.15 <input type="button" value="x"/> <input type="button" value="Search"/>
Server hardware type	DL360p Gen8
Enclosure group	not supported for this server hardware type
Affinity	not supported for this server hardware type

6. In the firmware section, select a **Firmware Baseline** from the dropdown menu.

**Firmware**

Firmware baseline	managed manually
Select a firmware baseline for the appliance. You can add multiple baselines for selection.	
Service Pack for ProLiant version 2016.04.0	

7. Once a baseline is selected, choose how the baseline will be applied to the server. If either of the options using the *HPE Smart Update Tools* is selected then the firmware or driver updates will be done while the systems are online. If the *firmware only* option is selected then the firmware will be updated offline using Intelligent Provisioning.

**Firmware**

Firmware baseline	Service Pack for ProLiant version 2016.04.0	No firmware bundles on the appliance. Add firmware bundles for selection.
Installation Method	<input checked="" type="radio"/> Firmware and OS Drivers using HPE Smart Update Tool <input type="radio"/> Firmware only using HPE Smart Update Tool <input type="radio"/> Firmware only	
To limit disruption during future firmware updates, select a Smart Update option. Without Smart Update, the server hardware must be powered off. <a href="#">Learn more</a>		
<input type="checkbox"/> Force installation		

8. If desired, enable local storage management by editing the **edit option**.

**Local Storage**

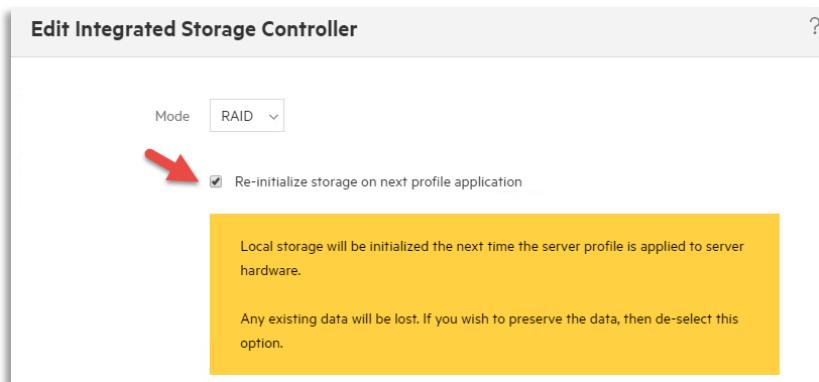
Integrated storage controller mode	managed manually
------------------------------------	------------------

9. In the Edit Integrated Storage Controller dialog box, select the mode of the storage controller using the dropdown list

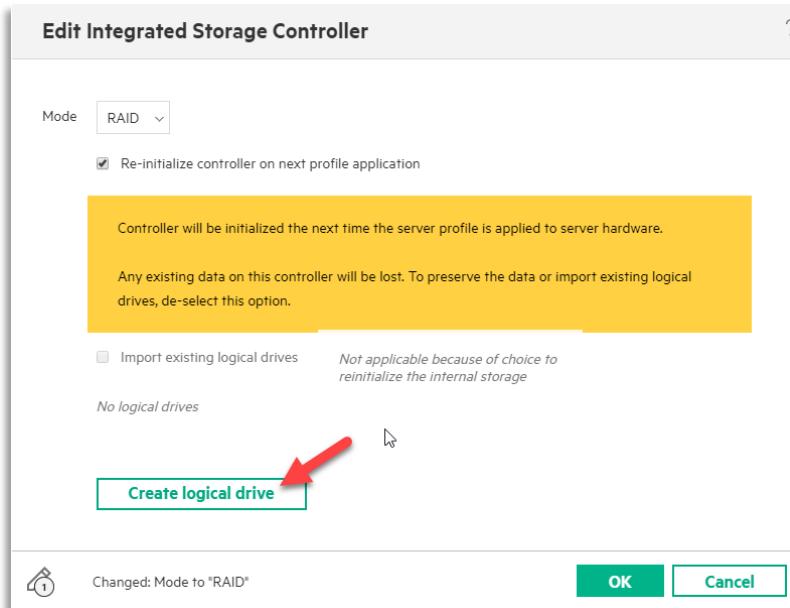
**Edit Integrated Storage Controller**

Mode	managed manually
managed manually RAID HBA	
Use managed manually to configure drives externally of OneView. OneView will not manage these drives. Use RAID to define logical drives or HBA to present drives directly to the controller.	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

10. Enable or disable the option to Re-initialize storage on next profile application. A warning will be shown about this option



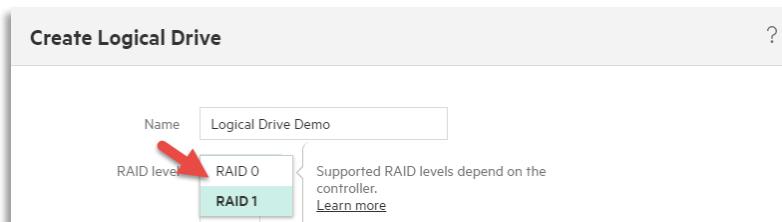
11. Click **Create logical drive**



12. In the Create Logical Drive dialog window, enter a **Name** for the logical drive



13. Select the **RAID Level** for the logical drive



14. Select the **number of drives** for that RAID set

Create Logical Drive

Name	Logical Drive Demo
RAID level	RAID 1
Number of physical drives	2



15. Select the **drive technology** of that RAID set.

Create Logical Drive

Name	Logical Drive Demo
RAID level	RAID 1
Number of physical drives	not specified
Drive technology	SAS HDD



Changed: Name to "Logical Drive Demo"      **Create**    **Create +**    **Cancel**

16. Click **Create or Create+** to create the logical drive for the server profile.

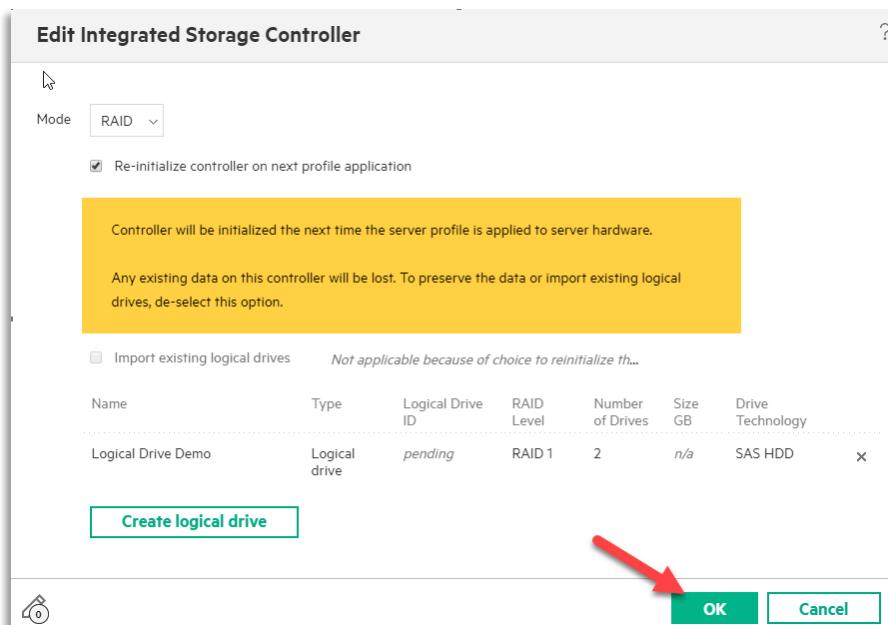
Create Logical Drive

Name	Logical Drive Demo
RAID level	RAID 1
Number of physical drives	2
Drive technology	SAS HDD



Changed: Drive technology to "SAS HD..."      **Create**    **Create +**    **Cancel**

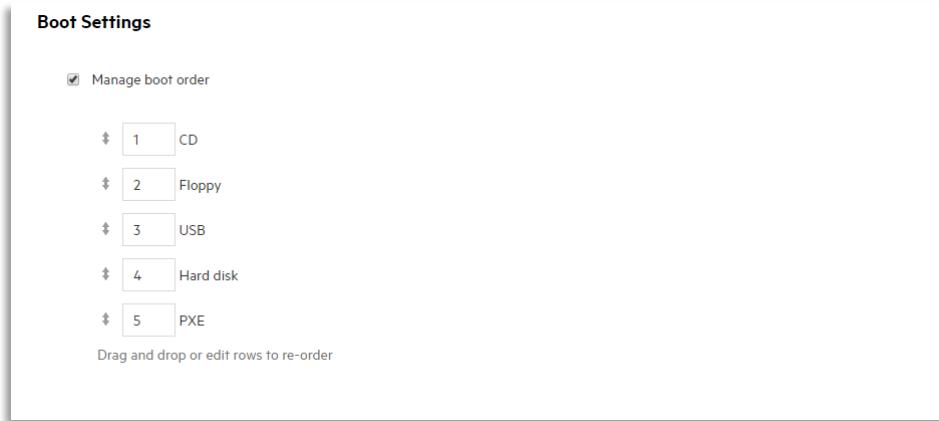
17. Once all of your logical drives are created, click **OK** to finish configuring the Integrated Storage Controller.



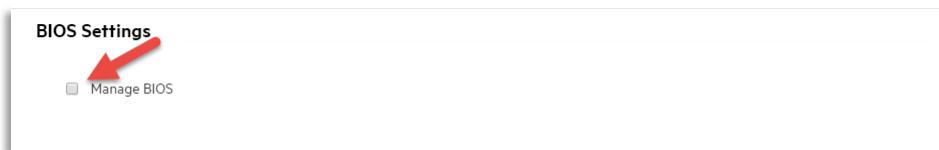
18. If desired, select the box to enable the Local Storage as the boot device



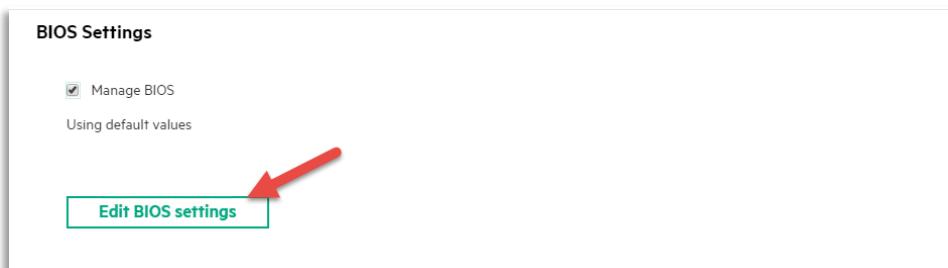
19. Adjust the boot order if desired



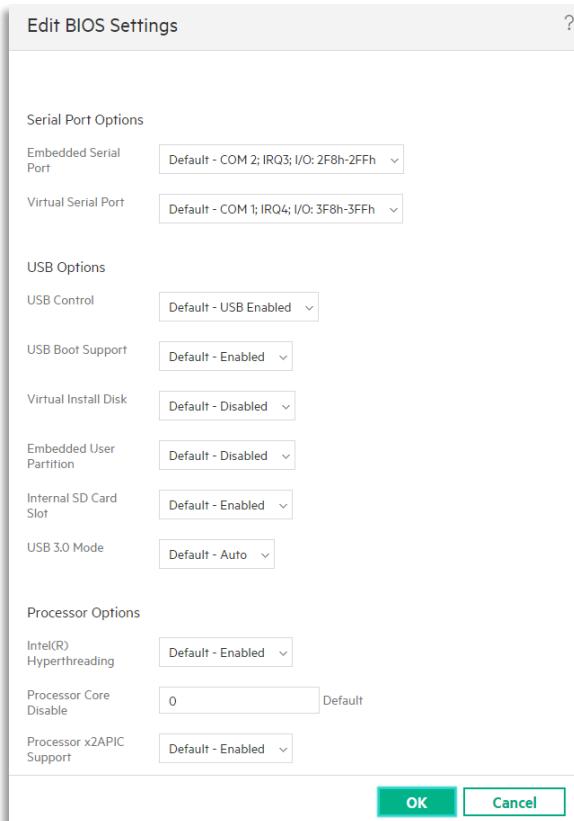
20. In the BIOS Settings section, if desired, **check the box** to Manage the BIOS.



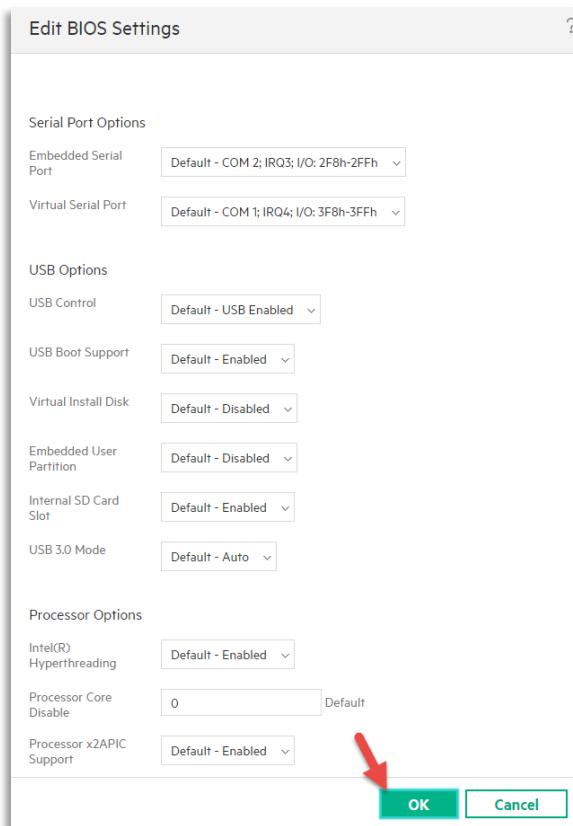
21. Click **Edit BIOS Settings**



22. In the Edit BIOS settings dialog window, **edit** any desired BIOS settings.



23. In the Edit BIOS settings dialog box, click **OK** after all of the desired BIOS settings are made.



24. Click **Create** or the **Create+** button.

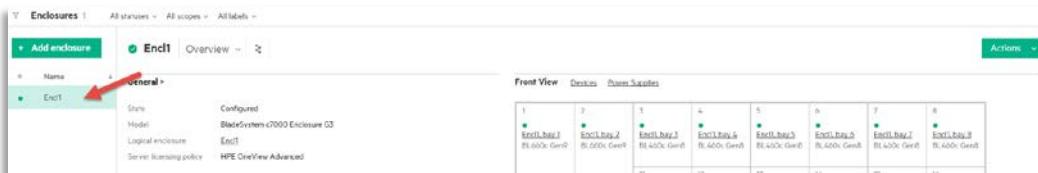
### Add New Blade to Enclosure (Optional)

In this section, you will need to insert a new blade into the enclosure. This will help you verify that a new blade is automatically discovered in the enclosure by HPE OneView. When a new blade is inserted into the enclosure, the Onboard Administrator will register a *Blade Insertion* event, which will be forwarded to the HPE OneView console. A discovery task will be created, which HPE OneView will attempt to configure the iLO for management.

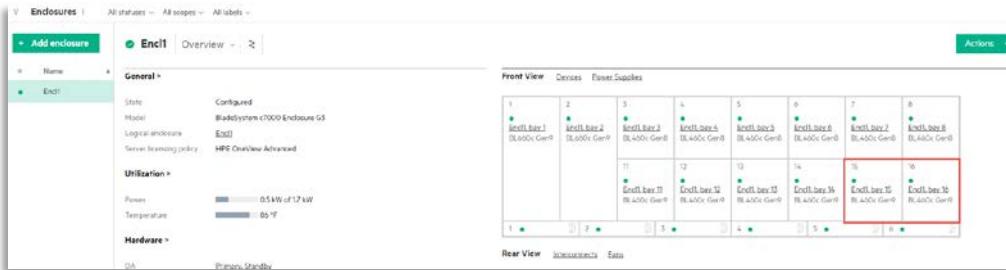
1. Insert new blade into enclosure.
2. From the Top-Level Menu, select **Enclosures**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures		Groups	Storage Systems	Devices
	Enclosures		Logical Interconnects	SANs	Unmanaged Devices
			Interconnects	SAN Managers	
			Logical Switch Groups		
			Logical Switches		
			Switches		

3. Select the enclosure from the left-hand menu



4. Examine the **Device Bays** using the front view to validate the new blade appears in the appropriate bay.



5. Once the new blade has been discovered it is available for use.

## Environment Management



With HPE OneView, you can optimize the power and cooling requirements of your data center efficiently. While each individual system, enclosure or PDUs in your data center can provide its power requirements and sometimes even a limited amount of power consumption history, it is still difficult to understand the power and cooling requirements for your data center in a holistic way.

In this section, you will go through how to configure your HPE OneView so you can start investigating more about the overall systems in your data center and their power & cooling capacities and consumption.

### Physical data center configuration

In order to take advantage of analysis and management features for your environment, you first want your physical data center environment to be accurately represented. You have the ability to match the physical placement of systems, enclosures, racks and other unmanaged devices through HPE OneView.

#### Add racks based on Location Discovery Services (LDS)

Racks are automatically created based on LDS. HPE ProLiant Servers or HPE BladeSystem enclosures mounted in HPE Intelligent Series Racks are automatically grouped in racks in the proper positions. The initial rack names are provided by the Rack Serial Number. The height of a created rack is displayed as 42U unless the top-most device managed by HPE OneView is in a higher position. If a managed device is later added to a position above 42U, the rack height will be automatically adjusted.

#### Add enclosures to racks without LDS

If no LDS is present, HPE BladeSystem enclosures automatically create an enclosing rack in HPE OneView during the discovery process, based upon the name configured in the HPE BladeSystem Onboard Administrator.

- Use of BladeSystem management stacking link cables up/down for all enclosures in a rack is encouraged – it causes a single rack to be created per set of enclosures and the enclosures will be in the proper order in the rack. Specific slot positioning must be provided by adjusting the positioning in the UI or via REST
- If BladeSystem management stacking links are not used – one rack is created per enclosure. You will need to manually change the HPE OneView configuration to put the enclosures into a single rack and delete any duplicate racks.

1. From the Top-Level Menu, select **Enclosures**.

GENERAL SERVERS HYPERVISORS NETWORKING STORAGE FACILITIES

<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers	Settings
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	Users and Groups
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices	
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices	
	Enclosures		Interconnects	SANs		
			Logical Switch Groups	SAN Managers		
			Logical Switches			
			Switches			

2. After selecting the correct enclosure from the main pane, the information in the Hardware section of the details pane allows you to see the rack automatically created to house the enclosure.

General >

State: Configured  
Model: BladeSystem c7000 Enclosure G3  
Logical enclosure: Encl1  
Server licensing policy: HPE OneView Advanced

Utilization >

Power: 0.4 kW of 1.7 kW  
Temperature: 64 °F

Hardware >

0A Location: Primary Standby  
Powered by: none  
Serial number: SGH100K&J

Front View Devices Power Supplies

1	2	3	4	5	6	7	8
Encl1_bay_1	Encl1_bay_2	Encl1_bay_3	Encl1_bay_4	Encl1_bay_5	Encl1_bay_6	Encl1_bay_7	Encl1_bay_8
BL460c Gen9							
11	12	13	14	15	16	17	18
Encl1_bay_11	Encl1_bay_12	Encl1_bay_13	Encl1_bay_14	Encl1_bay_15	Encl1_bay_16	Encl1_bay_17	Encl1_bay_18
BL460c Gen9							
1	2	3	4	5	6	7	8

Rear View Interconnects Fans

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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3. In the General section of the Add Rack dialog window, enter the **Name** for the rack

**General**

Hardware

Name

4. There are two optional settings in the General section, Thermal Limit and Serial Number. Enter these if desired

**General**

Hardware

Name

Thermal limit  Watts optional

Serial number  optional

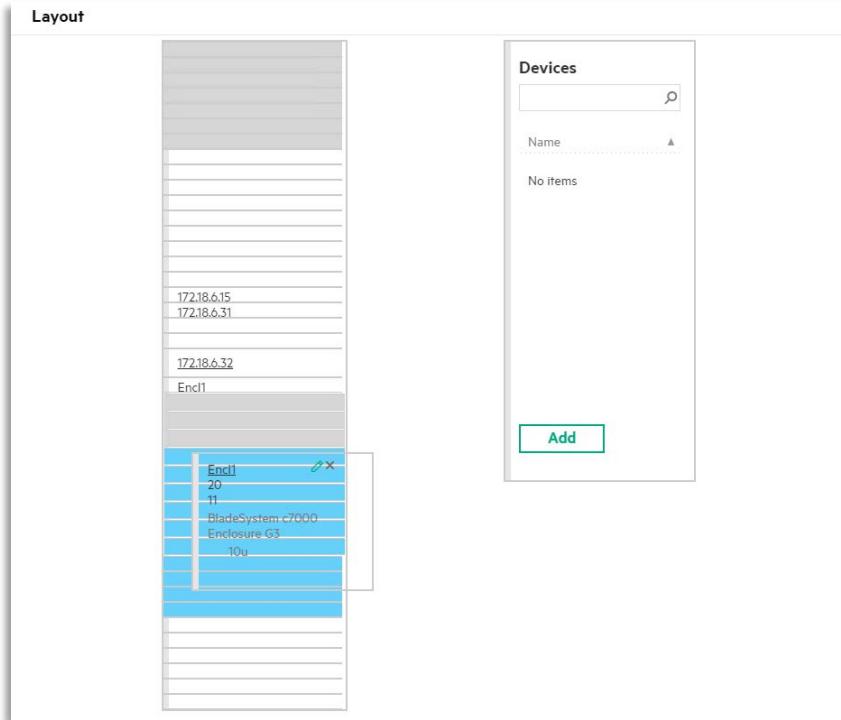
5. Enter the dimensions for the rack

Dimensions

Rack height  42 U

Height x width x depth  78.7 x  23.6 x  39.3 in

6. The Layout panel consists of a visual representation of the rack and its slots, a list of available devices and a search box to find the desire systems and enclosures. From this panel, you can add, remove, and rearrange devices within the rack and edit the device details. To place a device, drag and drop it in the desired location.



7. Once the rack has been configured, select **Add** to complete the setup or **Add +** if additional racks need to be created.

## Creating a data center

HPE OneView allows you to describe the physical locations of your racks and systems within your data center. After placing systems in the racks, 3D data center maps can be created to accurately describe the racks location on the data center floor.

- From the Top-Level Menu, select **Data Centers**.

The screenshot shows the HPE OneView interface with the 'Data Centers' link highlighted in the 'Facilities' section of the menu bar. A red arrow points to the 'Data Centers' link.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES	
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	<b>Data Centers</b>	Settings
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	Users and Groups
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices	
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices	
	Enclosures		Interconnects	SANs		
	Rack Managers		Logical Switch Groups	SAN Managers		
	Server Hardware		Logical Switches			
	Server Hardware Types		Switches			

- HPE OneView automatically creates a default data center (Datacenter 1) during setup which serves as a holding place for racks once created. All racks are listed under Datacenter 1 in the order they were created. A message is shown until the default data center indicating it has not been configured.

The screenshot shows the 'Data Centers' screen with 'Datacenter 1' selected. A yellow warning bar at the top states: 'Data center requires configuration.' Below the bar, the 'General' section displays width x depth (23.7" x 9.30"), electrical drawing (NAUD (000)), default voltage (220 V), and browser access (local host). On the right, there is a 3D perspective view of a single rack unit placed on a grid floor, with a color scale from 35°F to 91°F.

- If you wish to use the default Datacenter 1 for your actual data center, resolve the warning message by editing Datacenter 1 and renaming/resizing it to match the data center floor (or portion thereof) you are going to be managing with HPE OneView. This process is described in subsequent steps. Alternately, you can remove Datacenter 1 and Add one or more data centers as described next.

This screenshot is identical to the previous one, showing the 'Data Centers' screen with 'Datacenter 1' selected. The yellow warning bar and the 3D rack placement diagram are present.

- To add new data centers, use the **+Add Data Center** link on the Data Centers screen.

The screenshot shows the 'Data Centers' screen with the '+Add Data Center' button highlighted with a red arrow. The rest of the interface is identical to the previous screenshots.

- In the General section of the Add Data Center Window, enter the details about the new data center.

The screenshot shows the 'Add Data Center' dialog box with the 'General' tab selected. The form contains the following fields:

- Name: A text input field.
- Width x depth: Two input fields for width and depth in feet.
- Electrical derating: A dropdown menu set to 'NA/JP' with a value of '20%'.
- Default voltage: An input field set to '220 V'.
- Currency: An input field labeled 'optional'.
- Power costs: An input field labeled 'per kWh optional'.
- Cooling capacity: An input field labeled 'kW optional'.
- Cooling multiplier: An input field set to '1.5' labeled 'optional'.

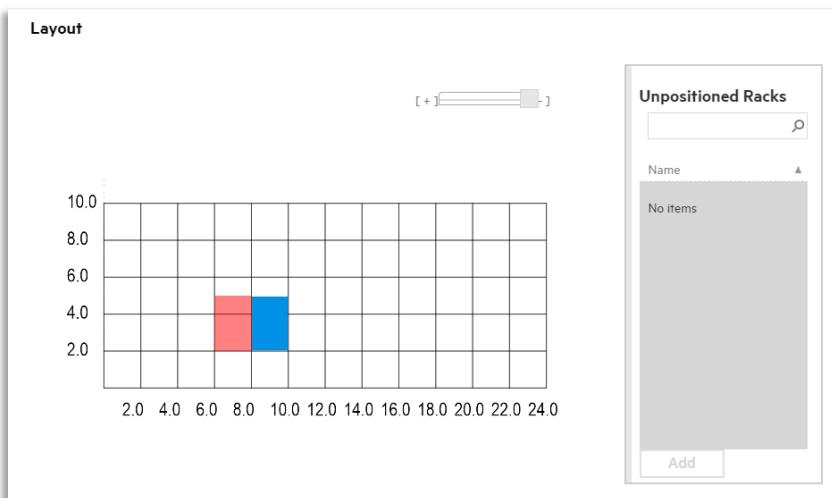
6. In the Layout section of the Add Data Center dialog box, arrange the physical location of the unpositioned racks.

The screenshot shows the 'Unpositioned Racks' dialog box. It displays a list of racks with one entry: 'Rack-221'. At the bottom right is a green 'Add' button.

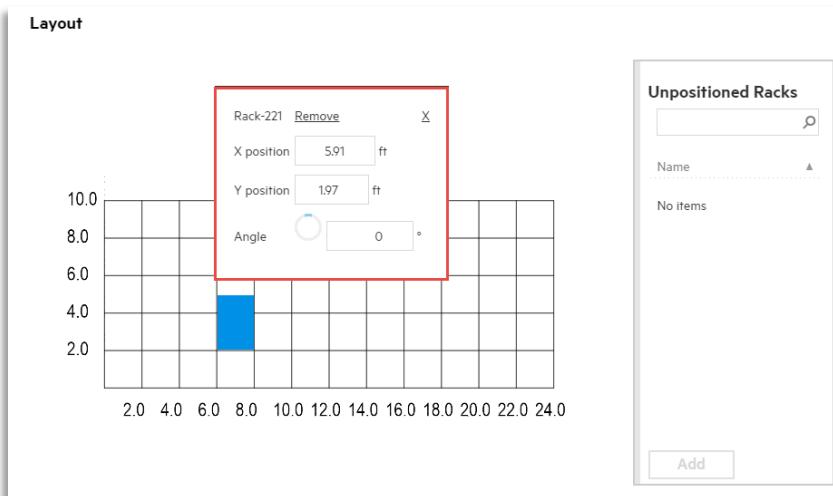
7. To edit an existing data center, select **Edit** in the Layout section of data center page.

The screenshot shows the 'Data Centers' page with 'Datacenter 1' selected. A yellow banner at the top states 'Data center requires configuration'. The 'Edit' button is highlighted with a red arrow in the 'Layout' section.

8. The Layout panel of the Edit screen allows you to drag & drop racks on the grid from an overhead view.



9. For physically accurate positioning not aligned with the grid lines, enter the position and angle in the rack positioning popup.



10. Once editing of the data center is complete, select the **OK** button to return to the data center screen to view the 3D model of the data center.

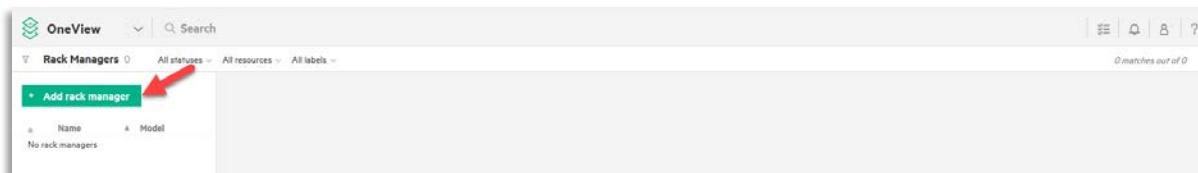
## Importing an HPE Superdome Flex

HPE OneView supports adding an HPE Superdome Flex complex for hardware monitoring. In this section you will Superdome Flex server by adding the IP address or FQDN of its Rack Manager Controller (RMC).

1. From the Top-Level Menu, select **Rack Managers**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles Reports	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. From the left-hand menu, select **Add rack manager**



3. Enter the **IP address or host name** of the rack manager

**Add Rack Manager**

The rack manager will be added for monitoring. Server hardware within monitored rack managers use an HPE OneView Standard license that provides inventory and status information only. [Learn more](#)

IP address or host name  IP address or host name of the rack manager's rack management controller (RMC)

4. Enter the **credentials** of the rack manager

**Add Rack Manager**

The rack manager will be added for monitoring. Server hardware within monitored rack managers use an HPE OneView Standard license that provides inventory and status information only. [Learn more](#)

IP address or host name  IP address or host name of the rack manager's rack management controller (RMC)

**Credentials**

User name	<input type="text" value="Administrator"/>
Password	<input type="password" value="*****"/>

5. Click **Add**

**Add Rack Manager**

The rack manager will be added for monitoring. Server hardware within monitored rack managers use an HPE OneView Standard license that provides inventory and status information only. [Learn more](#)

IP address or host name

**Credentials**

User name	<input type="text" value="Administrator"/>
Password	<input type="password" value="*****"/>

Changed: IP address or host name to "10.15.20.25"

**Add** **Add +** **Cancel**

## Configuring power delivery topology for the data center

Configuring the physical setup for your data center is only half the picture. To get a complete understanding of your environment, you can also configure its power delivery hierarchy. Building out your environment's power topology helps reduce downtime by eliminating wiring errors and identifying potential overloads. HPE OneView enables you to create power distribution device objects and describe the power source for one or more components in the rack. Below, configures the rack-level power distribution for each rack.

### Adding HPE iPDU's

- From the Top-Level Menu, select **Power Delivery Devices**.

The screenshot shows the HPE OneView dashboard with the 'Power Delivery Devices' option under the 'Facilities' category highlighted with a red arrow. The dashboard includes sections for General, Servers, Hypervisors, Networking, Storage, and Facilities, each with various sub-options like Server Profiles, Hypervisor Cluster Profiles, and Data Centers.

- To add HPE iPDU's that power your previously discovered equipment, select **+ Add power delivery device**.

The screenshot shows the 'Power Delivery Devices' page in OneView. A red arrow points to the '+ Add power delivery device' button at the top left of the list area.

- Select the type of PDU from the dropdown list

The screenshot shows the 'Add Power Delivery Device' dialog. The 'Type' dropdown is set to 'HPE Intelligent Power Distribution Unit'. The dialog has a question mark icon in the top right corner.

- Enter the **FQDN or IP address** of the iPDU to be imported

The screenshot shows the 'Add Power Delivery Device' dialog. The 'IP address or hostname' field is highlighted with a red box. The 'Type' dropdown is still set to 'HPE Intelligent Power Distribution Unit'. The dialog has a question mark icon in the top right corner.

- Enter the **login credentials** for the iPDU.

Add Power Delivery Device

Type: HPE Intelligent Power Distribution Unit

IP address or hostname: 172.18.8.11

Credentials

User name: dcs

Password: \*\*\*

10. Click **Add or Add+** to import the iPDU

Add Power Delivery Device

Type: HPE Intelligent Power Distribution Unit

IP address or hostname: 172.18.8.11

Credentials

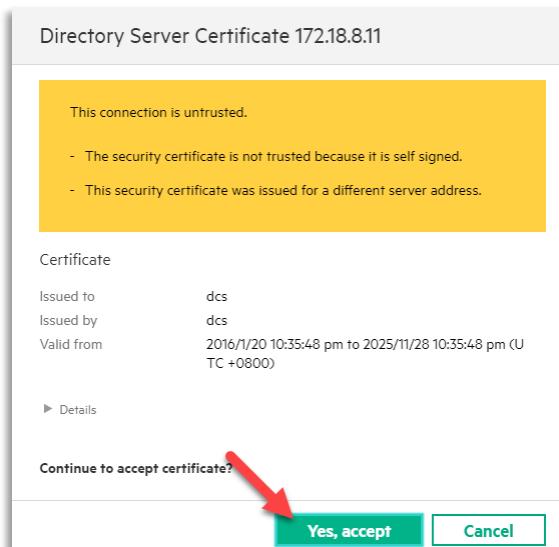
User name: dcs

Password: \*\*\*

Changed: Password

Add  Add + Cancel

11. Click **Yes Accept** regarding the server certificate for the iPDU



*Note: The import process will take a few minutes as it discovers the iPDU but all extension bars attached to it. It will also discover any other HPE equipment that is attached to the iPDU and extension bars.*

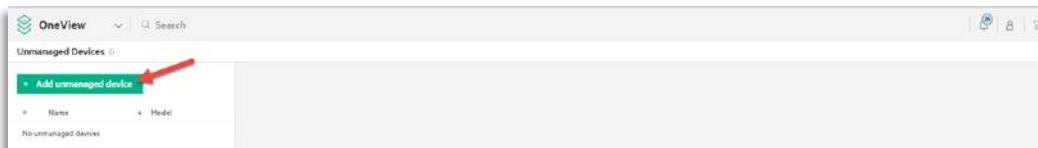
*Note: After importing the iPDU it is recommended that you edit the rack associated with the iPDU to set the iPDU core position properly. This is accomplished by dragging the iPDU to the upper or lower OU space drop zones on the A/B side of the rack as appropriate. Or specify the position via the device configuration popup accessible via the gear icon on the device.*

## Adding Unmanaged Devices

Unmanaged devices can be created for any devices that cannot be discovered by HPE OneView that consume power or slots in the rack.

- From the Top-Level Menu, select **Unmanaged Device**.

2. Once on the Unmanaged Devices screen, select the **+Add unmanaged device** button.

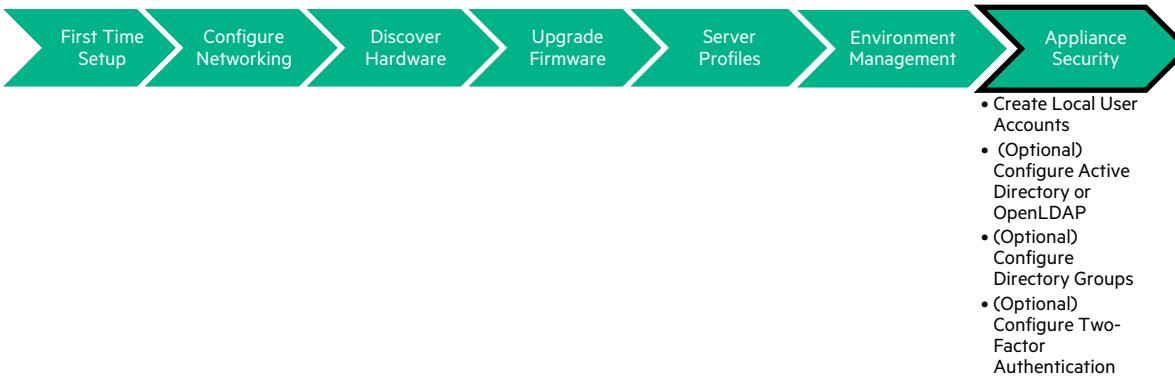


3. Enter the specified information to represent the unmanaged device. Specify the maximum power value for the device to enable capacity and consumption analysis of your power delivery system. Once all information is completed, click the **Add** or **Add+** button.

Add Unmanaged Device		General	?
Name	<input type="text"/>		
Model	<input type="text"/>		
Height	1	U	<input type="button"/>
Maximum power	<input type="text"/> Watts		

4. The device can then be added to any rack layout and associated with any power delivery device.

## Securing the Appliance



HPE OneView supports Role-based Access to the appliance with either local User Accounts, or it can be integrated with Microsoft Active Directory or other LDAP directories, like OpenLDAP. HPE OneView also supports Scope Based Access Control. This section will cover how to create local user accounts, as well as optional configurations such as Active Directory authentication within the appliance or Two Factor Authentication.

### (Optional) Integrating Active Directory/LDAP Security

You will need the following prior to configuring Active Directory settings within the appliance:

#### Active Directory or OpenLDAP Checklist

**Table 13.** Active Directory or OpenLDAP Checklist

Task	Completed? (Y N)
<b>SSL certificates installed on your Domain Controllers</b>	
<b>FQDN of available Domain Controllers or LDAP Servers</b>	
<b>Domain Security Groups for Server Admins (will map to Specialized Server Administrator role)</b>	
<b>Network Admins (map to Specialized Network Administrator role)</b>	
<b>Infrastructure Admins (map to Full Administrator role.)</b>	
<b>Read-Only Users</b>	

## (Optional) Integrating with Active Directory/OpenLDAP

- From the Top-Level Menu, select **Settings**.

The screenshot shows the HPE OneView interface with the 'Settings' option highlighted in the top navigation bar. The main menu includes sections for General, Servers, Hypervisors, Networking, Storage, and Facilities. Under the 'Facilities' section, 'Settings' is listed.

- Select **Security**

The screenshot shows the 'Security' page in the HPE OneView settings. The 'Security' tab is highlighted with a red arrow. Other tabs visible include 'Appliance', 'Backup', 'Networking', 'Time and Locale', 'Proxy', 'Licenses', 'Notifications', 'Scopes', and 'Activity'. The 'Licenses' section shows a requirement for 10 required add-ons.

- The Security page will be displayed. Select **Add Directory**

The screenshot shows the 'Add directory' window within the 'Security' section. The 'Add directory' button is highlighted with a red arrow. The window contains fields for 'Cert common name (CN)', 'Issued by', 'Valid from', 'Valid until', 'Serial number', and 'Version'.

- In the **Add Directory** window, you will need to specify the following:

- Directory Name
- Directory Type
- Search Context

- Field 1: CN for Active Directory, UID for LDAP Directories
- Field 2: Organizational Unit in Distinguished Name format (i.e. OU=Admins,OU=Contoso)
- Field 3: Top Level Domain Name in Distinguished Name format (i.e. DC=contoso,DC=com)
- Click the *Add directory server* button to add your Domain Controller FQDN and Base-64 Public Key Certificate used for Server Authentication.
- The Username and Password fields are to validate the Directory configuration. A Valid user account must exist in the Search Context you configured. You must specify the Canonical Name value of the user account.

**Note**

Field 2 can contain up to 4 Search Contexts. Referred to as multiple Relative Distinguished Names (RDNs), a '+' symbol is used to provide different search contexts. For instance, the following OU's could contain different Administrator accounts and groups:

- OU=admins,OU=Finance,DC=Contoso,DC=com
- OU=admins,OU=Sales,DC=Contoso,DC=com
- OU=admins,OU=HR,DC=Contoso,DC=com
- OU=admins,OU=Corp,DC=Contoso,DC=com

You can combine the above Search Contexts into a single value:

- OU=admins,OU=Finance,DC=Contoso,DC=com+OU=admins,OU=Sales,DC=Contoso,DC=com+OU=admins,OU=HR,DC=Contoso,DC=com+OU=admins,OU=Corp,DC=Contoso,DC=com

## 5. Enter the directory information

The screenshot shows the 'Add Directory' dialog box. It has three main input fields: 'Directory' containing 'doctors-lab.local', 'Directory type' set to 'Active Directory', and 'Base DN' containing 'DC=Doctors-Lab,DC=local'.

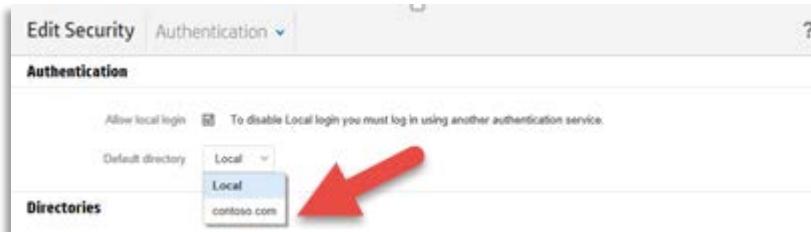
## 6. Click Add Directory Server

The screenshot shows the same 'Add Directory' dialog box as above, but with a red arrow pointing to the 'Add directory server' button at the bottom of the page.

## 7. Enter the IP address or host name and server port for the Directory Server and click **Add**

The screenshot shows the 'Add Directory Server' dialog box. It has two main input fields: 'IP address or host name' (empty) and 'Directory server port' (636). There is also a checkbox for 'Specify certificate'. At the bottom, there are three buttons: 'Add' (highlighted with a red arrow), 'Add +', and 'Cancel'.

8. After the Directory has been configured, go back and Edit Security to set the Default Directory, and click **OK** to save the settings.



9. From the Top-Level Menu, select **Users and Groups**.

GENERAL	SERVERS	HYPERSOURCES	NETWORKING	STORAGE	FACILITIES	
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers	<b>Settings</b>
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	<b>Users and Groups</b>
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices	
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices	
	Enclosures		Interconnects	SANs		
	Rack Managers		Logical Switch Groups	SAN Managers		
	Server Hardware		Logical Switches			
	Server Hardware Types		Switches			

10. In the Users and Groups view, select the Actions menu and choose **Add Group**

11. Select the **Select Group** button

Add Group

Directory: doctors-lab.local

Group:  **Select group**

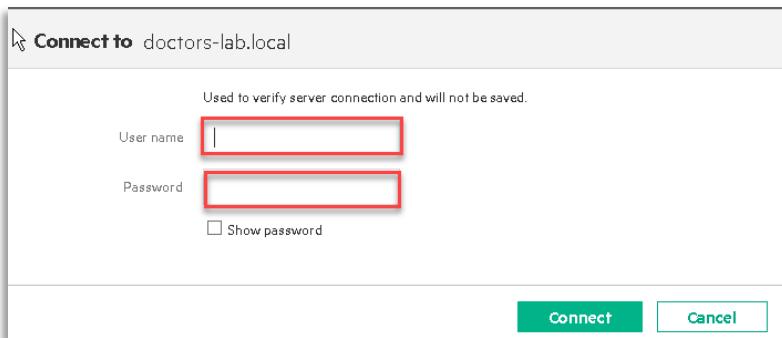
Example:CN=group1,OU=groups,DC=example,DC=com

Role:  Specialized  Full  Read only

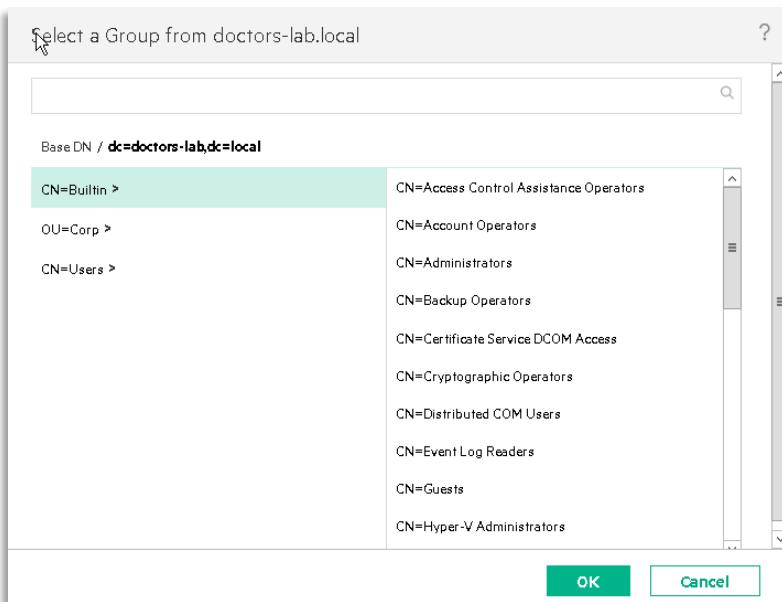
Backup administrator  
 Network administrator  
 Server administrator  
 Storage administrator  
 Software administrator

**Add** **Add +** **Cancel**

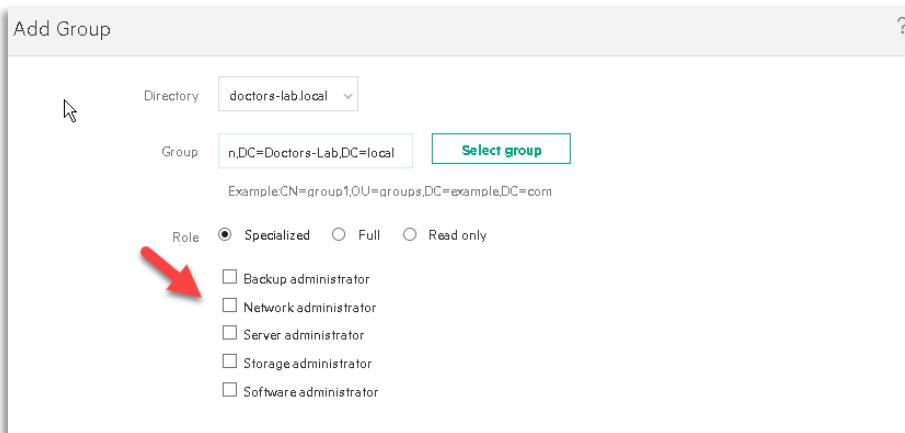
12. Provide the credentials to authenticate and click **Connect**.



13. Once authenticated, select a group from the groups dialog window and click **OK**.



14. Assign the role that is needed for that directory group.



15. Click **Add** to close the Add Group Dialog window

16. Repeat the same steps to add the remaining **Directory Groups**.

17. After you have configured your Directory Groups, you should log out by clicking the User button in the upper right of the UI and select **Logout**.

18. On the logon page, you will notice a new field to choose. This is the Directory chooser. You can select from the configured Directories and Local (if Local was not disabled in your Directory configuration.) Verify that you have setup the various groups correctly by logging in with different users and ensure the permissions are set correctly.



## (Optional) Integrating with Two-Factor Authentication

Enabling two-factor authentication allows you to use smart cards — for example, Common Access Cards (CAC), or Personal Identity Verification (PIV) cards — to authenticate within HPE OneView. The smart card reader plugin in the browser reads the smart card and accesses the certificate in the card using the PIN specified by the user. The client certificate embedded in the smart card is presented to HPE OneView by the browser. The client certificate must be signed by a root or intermediate Certificate Authority (CA) that has been previously imported into HPE OneView. The appliance authenticates the client certificate to validate that the user name specified in the certificate is that of a valid user recognized by the directory server configuration in HPE OneView.

Active Directory or OpenLDAP is required for two-factor authentication

1. From the Top-Level Menu, select **Settings**.

The screenshot shows the OneView navigation bar with several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under each category, there are sub-links. The 'Settings' link under the FACILITIES category is highlighted with a red arrow.

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Select **Security**

The screenshot shows the 'Settings' page with various configuration sections. A red arrow points to the 'Security >' link in the left sidebar. The main content area includes sections for Appliance, Backup, Networking, Time and Locale, Proxy, Licenses, Activity, Notifications, Scopes, and Addresses and Identifiers.

Appliance >		Backup >		Networking >	
Firmware	4.00.00-0319695	Frequency	not set	Network Status	▲ Configuration warning
<a href="#">Update appliance</a>		Last downloaded backup created at	none	Host name	dddemo.b172.local
<a href="#">Create support dump</a>		Current backup created at	none	Appliance IP address	172.16.50.194
		<a href="#">Create backup</a>		Gateway address	172.16.50.254
				Primary DNS	172.16.50.51

Time and Locale >		Proxy >		Licenses >	
Time	12/11/17 8:39:42 am (UTC -0600)	not set		Licenses	none
Locale	English (United States)			<a href="#">Add</a>	

Security > <span style="color: red;">(highlighted)</span>		Notifications >		Scopes >	
Directories	Local default	Alert email filters	Disabled	none	
<a href="#">Manage certificates</a>		Filters	none	<a href="#">Create scope</a>	

Activity >		SNMP >		Addresses and Identifiers >	
Active alerts	▲ 1	SNMPv1 read community string	W88cSF	Available	
		Engine ID	202f0bbff55a54b6beb2098ae2b932b49	IPv4 Addresses	not set
				MAC Addresses	1048576
				...	...

3. Using the Actions menu, select **Edit**

**Security** | Authentication

**Authentication**

Local login	Enabled
Two-factor authentication	Disabled
Default directory	Local
Service console access	Enabled
Enforce complex passwords	Disabled
SSH access	Enabled

#### 4. Enable Two-Factor Authentication

**Edit Security** | Authentication

**Authentication**

Two-factor authentication	Disabled
Local login	Enabled
Default directory	Local
Service console access	Enabled
Enforce complex passwords	Disabled
SSH access	Enabled

## Creating a Scope

#### 1. From the Top-Level Menu, select **Settings**.

GENERAL	SERVERS	HYPERSIORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups		
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

#### 2. Select **Scopes**

The screenshot shows the 'Settings' page in HPE OneView. It includes sections for Appliance, Backup, Networking, Time and Locale, Proxy, Licenses, Security, Notifications, and Scopes. The 'Scopes' section is highlighted with a red arrow.

3. The Scopes page will be displayed. Select **Create Scope**

The screenshot shows the 'Scopes' page in HPE OneView. It displays a list of scopes and a 'Create scope' button, which is highlighted with a red arrow.

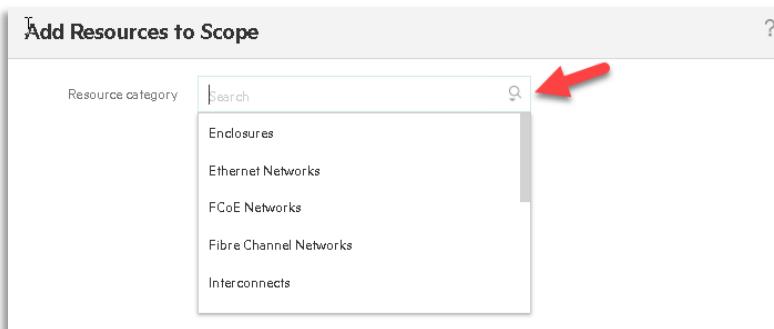
4. In the Create Scope dialog window add a **name and description** for the scope

The screenshot shows the 'Create Scope' dialog window. It has fields for 'Name' (set to 'Scope Demo') and 'Description' (containing 'How to create a scope'), both of which are highlighted with red boxes.

5. Click **Add Resources**

The screenshot shows the 'Create Scope' dialog window with the 'Resources' section expanded. The 'Add Resources' button is highlighted with a red box.

6. In the Add Resources to Scope dialog window, use the dropdown box to find the resources to be added to the scope



7. Select the resources to be added to the scope

The screenshot shows the 'Add Resources to Scope' dialog with 'Ethernet Networks' selected in the resource category dropdown. Below the dropdown is a search bar with a magnifying glass icon. Underneath is a list of selected resources: '2 selected'. The list includes 'Add\_Demo', 'Blue-A' (which has a red arrow pointing to it), and 'Blue-B'. Other items listed are Facilities-A, Facilities-B, Finance-A, and Finance-B.

8. Click **Add** or **Add+** to close the Add Resources to Scope dialog window

The screenshot shows the 'Add Resources to Scope' dialog with the same resource selection as the previous screenshot. At the bottom are three buttons: a green 'Add' button with a red arrow pointing to it, a white 'Add +' button, and a white 'Cancel' button.

9. Click **Create** or **Create+** to create the scope

Create Scope

Name: Scope Demo

Description: How to create a scope

**Resources**

Name	Resource Category	X
Blue-A	Ethernet Networks	X
Blue-B	Ethernet Networks	X

Add Resources Remove Resources

Changed: Description to "How to create a scope"

Create Create + Cancel

## Maintaining Your Appliance

This segment will guide you through the maintenance tasks you may encounter when using the HPE OneView appliance. It will cover the maintaining user groups and accounts, alerts and monitoring as well as other tasks you may experience when using HPE OneView to manage your Composable Infrastructure.

### Import/Migrate a Virtual Connect Managed Enclosure

HPE OneView supports the ability to migrate existing Virtual Connect Domains. Starting in HPE OneView 3.0 the migration process is now a live migration.

Before proceeding with the following steps, please make sure you have completed the following:

**Table 14.** VCM Migration Checklist

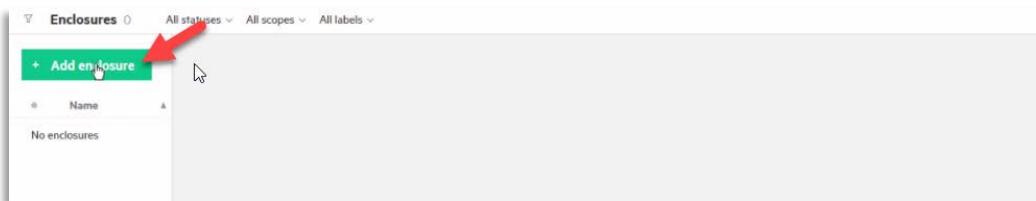
Task	Completed? (Y N)
<b>Created Virtual Connect Domain Backup</b>	
<b>Source Onboard Administrator IP Address/FQDN</b>	
<b>Source Onboard Administrator Credentials (not LDAP/AD credentials)</b>	
<b>Source Virtual Connect Manager Domain-level Credentials (not LDAP/AD credentials)</b>	
<b>All servers are powered off</b>	

- From the Top-Level Menu, select **Enclosures**

OneView

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems SANs	Unmanaged Devices
	Enclosures		Interconnects	SAN Managers	
			Logical Switch Groups		
			Logical Switches		
			Switches		

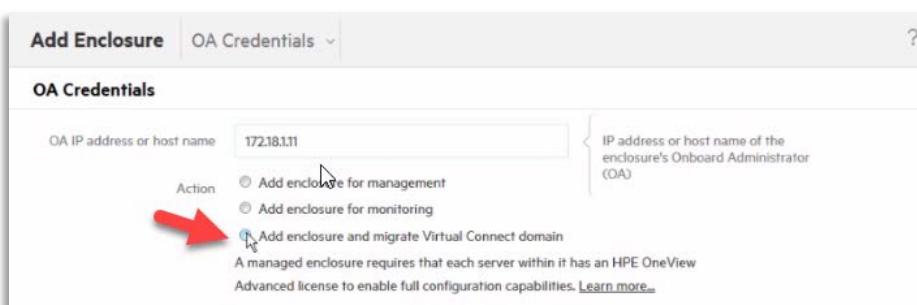
2. Select **Add Enclosure**



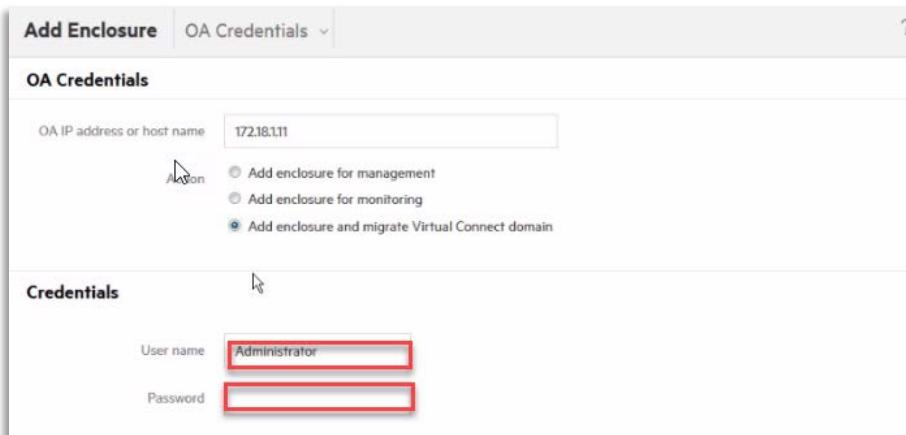
3. Enter the **IP Address** or **FQDN** for the Onboard Administrator address for the enclosure to be migrated



4. Select **Add enclosure and migrate Virtual Connect domain.**



5. Enter the credentials needed for the Onboard Administrator.



6. Select the enclosure group that the enclosure will be a part of. If you are creating a new enclosure group enter the information.

**OA Credentials**

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

**Credentials**

User name: dcs

Password: \*\*\*

**General**

Enclosure group: Create new enclosure group

Enclosure group name: HOU\_EG\_1

An enclosure group is required for every enclosure

- Select the license type to be applied to the devices within the enclosure being imported.

**OA Credentials**

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

**Credentials**

User name: Administrator

Password: \*\*\*\*\*

**General**

Enclosure group: Create new enclosure group

Enclosure group name: HOU\_EG\_1

Licensing [Learn more](#)

HPE OneView Advanced 
 Select for server hardware without iLO Advanced installed. This will apply both HPE OneView and iLO Advanced licenses.  
0 licenses available

HPE OneView Advanced w/o iLO  
0 licenses available

- Enter the administrative credentials for the Virtual Connect domain to be imported.

The screenshot shows the 'Add Enclosure' interface. At the top, there are tabs for 'Add Enclosure' and 'OA Credentials'. Below the tabs, a note says 'Add enclosure and migrate virtual Connect domain'. The 'OA Credentials' section contains fields for 'User name' (dcs) and 'Password' (\*\*\*). The 'General' section includes 'Enclosure group' (Create new enclosure group), 'Enclosure group name' (HOU\_EG\_1), and a 'Licensing' dropdown set to 'HPE OneView Advanced'. The 'Virtual Connect Manager Credentials' section has fields for 'User name' (Administrator) and 'Password' (redacted).

9. Click **Test Compatibility**.

This screenshot shows the same 'Add Enclosure' interface as above, but with a red arrow pointing to the green 'Test compatibility' button in the 'Migration Details' section. The rest of the fields and sections are identical to the first screenshot.

10. Review the migration information and warnings. If acceptable, agree to the warnings

**Add Enclosure** Migration Details ?

### Migration Details

[Test compatibility](#)

View the [migration report](#) to evaluate the **15 warning(s)**. Consider the suggested solutions and ensure the warning(s) will not affect operation.

The enclosure "VLAN4-OLDDEV-Enc13", and the following resources will be migrated:

Enclosures	1
Virtual Connect interconnect modules	6
Servers	14
Ethernet networks	53
Fibre Channel networks	2
Server profiles	14
Enclosure group	HOU_EG_1
Logical interconnect groups	LIG_SIM497102658_1
Total # of warnings	15

**Migration Acknowledgments**

I have read and understood:

- A current Virtual Connect Manager configuration backup must be created. Virtual Connect Manager will not be available after the migration. [Learn more](#)
- Any OneView resources created by or used during this migration must not be modified until the migration has completed. [Learn more](#)
- To minimize application downtime during migration, redundant interconnect hardware configuration is required. [Learn more](#)
- Server profile connection SR-IOV configuration will be changed to evenly distribute virtual functions



11. Select **Add** to begin the migration process. This process can take up to a half an hour to complete. To finalize the server profile assignment process please reboot the servers during your next scheduled maintenance window.

**Add Enclosure** Migration Details ?

### Migration Details

[Test compatibility](#)

View the [migration report](#) to evaluate the **15 warning(s)**. Consider the suggested solutions and ensure the warning(s) will not affect operation.

The enclosure "VLAN4-OLDDEV-Enc13", and the following resources will be migrated:

Enclosures	1
Virtual Connect interconnect modules	6
Servers	14
Ethernet networks	53
Fibre Channel networks	2
Server profiles	14
Enclosure group	HOU_EG_1
Logical interconnect groups	LIG_SIM497102658_1
Total # of warnings	15

**Migration Acknowledgments**

I have read and understood:

- A current Virtual Connect Manager configuration backup must be created. Virtual Connect Manager will not be available after the migration. [Learn more](#)
- Any OneView resources created by or used during this migration must not be modified until the migration has completed. [Learn more](#)
- To minimize application downtime during migration, redundant interconnect hardware configuration is required. [Learn more](#)
- Server profile connection SR-IOV configuration will be changed to evenly distribute virtual functions

The migration report is ready to view.

**Add** **Add +** **Cancel**



12. The *Enclosure Group* and *Logical Interconnect Group* resource names can be modified after the migration is complete. Which the *Enclosure Group* resource can be selected in Step 4 instead of creating a new Enclosure Group resource as long as the additional target enclosure Virtual Connect configuration match (Ethernet and FC Networks, and associated uplink ports.)

## Import an Enclosure for Monitoring

In this section, you will go through the process on how to import an enclosure into the HPE OneView console. In order to successfully import an enclosure, the Onboard Administrator must be configured. At a minimum, both the Primary and Secondary OA must have a valid IP Address, Enclosure Bay IP Addressing or external DHCP Server supplying IP leases, and a valid Administrator-role account. During the Enclosure Import process, HPE OneView will automatically configure SNMP, NTP and the HPE SIM Single-Sign-On Certificate with the HPE OneView appliance IP Address and public SSL Certificate. The Enclosure Import process will also discover any device in the enclosure's Device Bays and attempt to configure the supported iLO's for management (SNMP, NTP, HPE SIM SSO Certificate, create a special user account \_HPOneViewAdmin) and license the iLO's and servers based on the License Intent setting in the *Add Enclosure* screen.

### Note

If an enclosure is imported as a monitored enclosure then Virtual Connect Manager will still maintain control and management of the connectivity options.

- From the Top-Level Menu, select **Enclosures**.

The screenshot shows the OneView navigation menu. The 'Enclosures' option under the 'Dashboard' category is highlighted with a red arrow. Other categories like 'Servers', 'Hypervisors', 'Networking', 'Storage', and 'Facilities' are also listed.

- Click the **Add Enclosure** button.

The screenshot shows the 'Add Enclosure' page. The 'Add enclosure' button at the top left is highlighted with a red arrow. The page includes search and filter options, and a table with columns for Name and General.

- Enter the **IP address or FQDN** of the Onboard Administrator for the enclosure that you are importing

The screenshot shows the 'OA Credentials' section. The 'OA IP address or host name' field contains '172.18.1.13'. A callout indicates that this is the 'IP address or host name of the enclosure's Onboard Administrator (OA)'.

- Select the **Add enclosure for monitoring** option

The screenshot shows the 'OA Credentials' section. The 'Action' dropdown has 'Add enclosure for monitoring' selected. Other options include 'Add enclosure for management' and 'Add enclosure and migrate Virtual Connect domain'. A callout indicates that this is the 'IP address or host name of the enclosure's Onboard Administrator (OA)'.

- Enter the login credentials for the Onboard Administrator of the enclosure being imported

**Credentials**

User name	dcs
Password	***

6. Selecting the **Add or Add+** button, the enclosure will be discovered, and the Onboard Administrator will be configured to be monitored by HPE OneView.

**Add Enclosure** OA Credentials ?

**OA Credentials**

OA IP address or host name	172.18.1.13
Action	<input type="radio"/> Add enclosure for management <input checked="" type="radio"/> Add enclosure for monitoring <input type="radio"/> Add enclosure and migrate Virtual Connect domain

**Credentials**

User name	dcs
Password	***


Add   Add +   Cancel

Changed: Password

Once the enclosure information has been verified, the HPE OneView appliance will begin the discovery process. During this time, the appliance will validate if the OA firmware meets the minimum requirement. Clicking on the *Details* link will take you to the *Activity* view of the enclosure, where you can examine the task and subtask details.

During the import, HPE OneView configures Single Sign On, Network Time Protocol, power state and SNMP settings, as well as discovering the hardware types and updating environmental configurations.

7. After the Add Enclosure task has completed, the Enclosure State should read **Monitored**.

Enc12 | Overview | Actions

**General**

- Status: Normal
- Model: BladeSystem c7000 Enclosure G3
- Logical unit count: N/A
- Server licensing policy: HPE OneView Standard

**Utilization**

- Power: 1000W
- Temperatures: 25°C

**Hardware**

- QDR: Primary Standby
- Location: Rack21
- Powered by: 2x 10GbE
- Serial number: SG4000001

**Front View**

1	2	3	4	5	6	7	8
Enc12.bay.1 BL500 Gen9	Enc12.bay.2 BL500 Gen9	Enc12.bay.3 BL460 Gen9	Enc12.bay.4 BL460 Gen9	Enc12.bay.5 BL460 Gen9	Enc12.bay.6 BL460 Gen9	Enc12.bay.7 BL460 Gen9	Enc12.bay.8 BL460 Gen9
9	10	11	12	13	14	15	16
Enc12.bay.11 BL460 Gen9	Enc12.bay.12 BL460 Gen9	Enc12.bay.13 BL460 Gen9	Enc12.bay.14 BL460 Gen9	Enc12.bay.15 BL460 Gen9	Enc12.bay.16 BL460 Gen9		

**Rear View**

1	2	3	4	5	6	7	8	9	10	11	12
1 Enc12.intersocket.1 HPE FlexFabric 20GbE FDR Module	2 Enc12.intersocket.2 HPE FlexFabric 20GbE FDR Module										
empty	empty										
empty	empty										
empty	empty										

## Changing the IP address of the HPE OneView Appliance

There may come a time when the IP address of the HPE OneView Appliance needs to be changed. Please follow these steps to ensure a smooth and easy transition for your Composable Infrastructure.

- From the Top-Level Menu, select **Settings**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

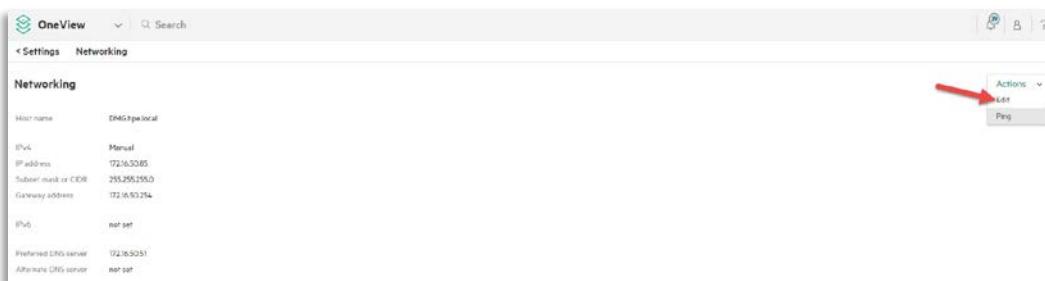
- On the settings page, select **Networking**

OneView | Search

**Settings**

<b>Appliance</b>	<b>Backup</b>	<b>Networking</b>	<b>Time and Locale</b>	<b>Proxy</b>
Version: 7.00.00-0342723	Frequency: never	Host name: DMGbox.local	Time: 10/26/16 3:33:36 pm (UTC-0500)	Port: 8080
Update appliance	Last download: never	Appliance IP: 172.30.50.85	Locale: English (United States)	Proxy URL:
Create support dump	Last backup: never	Address: 172.30.50.254	Primary DNS: 172.30.50.31	Proxy port:
	Current backup: never	Gateway address: 172.30.50.254		
	Created at:	Primary DNS: 172.30.50.31		
	<a href="#">Create backup</a>			
<b>Licenses</b>	<b>Security</b>	<b>Notifications</b>	<b>Scopes</b>	<b>Activity</b>
HPE OneView Advanced: 35 required	Directmail: Local default	Alert email filters: Disabled	Active alerts: 1	
Add		Filters: none	<a href="#">Create scope</a>	
<b>SNMP</b>	<b>Addresses and Identifiers</b>	<b>Remote Support</b>		
Read community: public	Available IPv4 Addresses: none set	Remote Support: Disabled		
Trap destinations: none	MAC Addresses: 1048572	Connected to: No		
	World Wide Name: 1048572	Registration interval: Not registered		
	Serial numbers: J4005	Insight Online: Disabled		

- In the networking page, select **Edit** from the Actions menu



4. Enter the new **IP address or FQDN** for the HPE OneView Appliance.

5. Click **OK**.

#### Note

After clicking OK, the appliance will be configured using the new parameters. If you selected Static for the IP Address Assignment, you should be redirected to the new IP address. As this change is being applied the HPE OneView appliance will push the changes to the managed resources (storage devices, enclosures, etc.)

## Changing the SNMP Read String of the HPE OneView Appliance

There may come a time when the SNMP Read string of the HPE OneView Appliance needs to be changed. Please follow these steps to ensure a smooth and easy transition for your Composable Infrastructure.

1. From the Top-Level Menu, select **Settings**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. On the settings page, select **SNMP**.

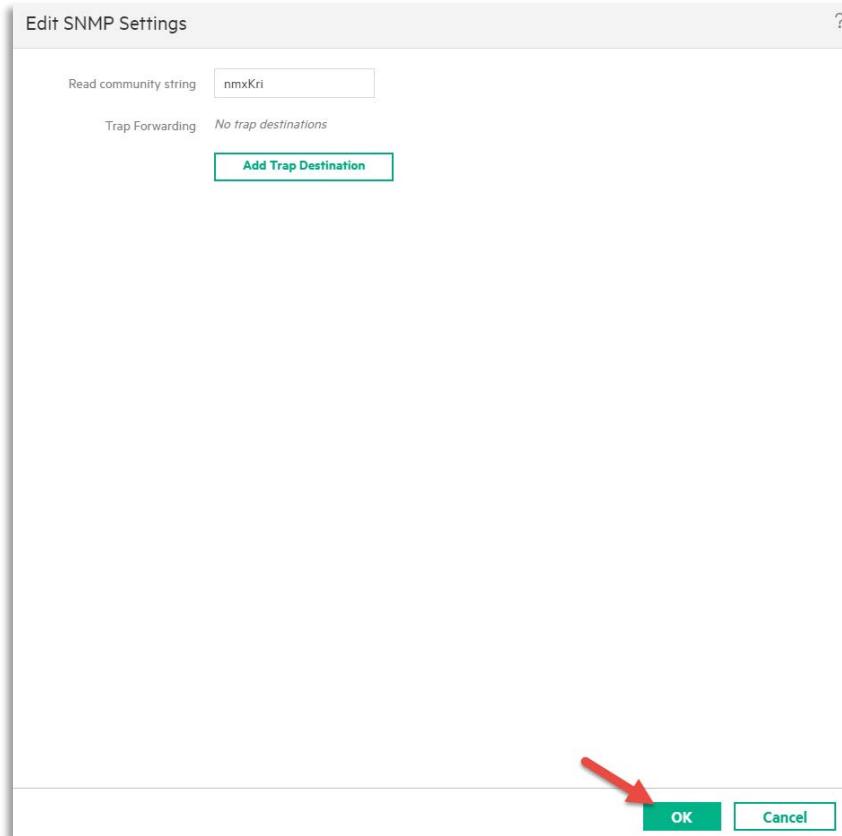
Appliance >		Backup >	Networking > <a href="#">Edit</a>	Time and Locale >	Proxy >
Hostname: 50000-0149725	Frequency: not set	Last download: none Last imported: n/a	Host name: DM03.local Appliance IP: 172.35.50.85 Gateway address: 172.35.50.254 Primary DNS: 172.35.50.501	Time: 5/25/16 5:40:13 pm (UTC -0500) Locale: English (United States)	n/a
Update appliance Create support data					
<a href="#">Create backup</a>					
Licenses >		Security >	Notifications >	Scopes >	Activity >
HPE OneView Advanced		Directories: Local default	Alert email filters: Disabled Filters: none	none	No active alerts
<a href="#">Add</a>					
SNMP <a href="#">Edit</a>		Addresses and Identifiers >	Remote Support >		
Read community string: nmxKri Trap destinations: none		IPv4 Addresses: Available MAC Address: 1048572 World Wide Name: Serial Numbers: 44655	Remote Support: Disabled Converted to: HPE Registration status: Not registered Insight Online: Disabled		

3. On the SNMP page, select **Edit** from the Actions menu.

4. Enter the new **Read community string**

Edit SNMP Settings	
Read community string:	<input type="text" value="nmxKri"/>
Trap Forwarding:	No trap destinations
<a href="#">Add Trap Destination</a>	

5. Click **OK** to close the Edit SNMP Settings dialog window.



#### Note

Changing the read string is recommended when running HPE System Insight Manager and HPE OneView in conjunction with each other. This is due to the fact that the OA only supports a single SNMP read string. When the enclosure is imported into HPE OneView, the read string on the OA will be overwritten if it doesn't match that of the HPE OneView appliance.

## Configuring SNMP v3

- From the Top-Level Menu, select **Settings**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- On the settings page, select **SNMP**.

**Appliance >**

- Firmware: 4.00.00-0319695
- Frequency: not set
- Last downloaded backup created at: none
- Current backup created at: none
- [Create backup](#)

**Networking >**

- Network Status: Configuration warning
- Host name: dlldemo.b172.local
- Appliance IP address: 172.16.50.194
- Gateway address: 172.16.50.254
- Primary DNS: 172.16.50.51

**Time and Locale >**

- Time: 12/11/17 8:46:07 am (UTC -0600)
- Locale: English (United States)

**Proxy >**

- not set

**Licenses >**

- Licenses: none
- [Add](#)

**Security >**

- Directories: Local default

**Notifications >**

- Alert email filters: Disabled
- Filters: none

**Scopes >**

- none
- [Create scope](#)

**Activity >**

- Active alerts: 1

**SNMP >**

- SNMPv1 read community string: W88c5F
- Engine ID: 202f0bbf55a54b6beb2098ae2b932b49

**Addresses and Identifiers >**

- Available IPv4 Addresses: not set
- MAC Addresses: 1048576

### 3. From the Actions menu, select **Edit**

**SNMP**

- SNMPv1 read community string: W88c5F
- SNMPv3 Engine ID: 202f0bbf55a54b6beb2098ae2b932b49
- SNMPv3 Users: No SNMPv3 users
- Trap Destination: No trap destinations

**Actions**

- Edit

### 4. Click **Add SNMPv3 Users**

**Edit SNMP Settings**

- SNMPv1 read community string: W88c5F
- SNMPv3 Users: No SNMPv3 users

**Add SNMPv3 Users**

### 5. Enter the **User Name** for the SNMPv3 User

**Add SNMPv3 User**

User name: Demo

### 6. Select the appropriate **security level**

Add SNMPv3 User

User name Demo

Security Level  None  Authentication  Authentication and privacy

7. Select the desired **Authentication Protocol** from the drop-down list

Add SNMPv3 User

User name Demo

Security Level  None  Authentication  Authentication and privacy

Authentication Protocol MD5  
SHA1  
SHA256  
SHA384  
**SHA512**

Privacy Protocol

8. Enter an **Authentication Passphrase**

Add SNMPv3 User

User name Demo

Security Level  None  Authentication  Authentication and privacy

Authentication Protocol MD5

Authentication Passphrase \*\*\*\*

9. Select the desired **Privacy Protocol** from the drop-down list

Add SNMPv3 User

User name Demo

Security Level  None  Authentication  Authentication and privacy

Authentication Protocol MD5

Authentication Passphrase \*\*\*\*\*

Privacy Protocol DES  
3DES  
AES-128  
AES-192  
**AES-256**

Privacy Passphrase

10. Enter the **Privacy Passphrase**

Add SNMPv3 User

User name: Demo

Security Level:  Authentication and privacy

Authentication Protocol: MD5

Authentication Passphrase:

Privacy Protocol: AES-256

Privacy Passphrase:

### 11. Click Add

Add SNMPv3 User

User name: Demo

Security Level:  Authentication and privacy

Authentication Protocol: MD5

Authentication Passphrase:

Privacy Protocol: AES-256

Privacy Passphrase:

Changed: Authentication Passphrase

**Add** **Add +** **Cancel**

### 12. Click OK

Edit SNMP Settings

SNMPv1 read community string: W88c5F

SNMPv3 Users	Name	Security Level	Authentication Protocol	Privacy Protocol
Demo	Authentication and privacy	MD5	AES-256	

**Add SNMPv3 Users**

Trap Forwarding: No trap destinations

**Add Trap Destination**

**OK** **Cancel**

## Backing up the HPE OneView Appliance – Onetime method

HPE OneView allows for the backing up of the configuration and imported devices. This section will describe how to create a onetime backup of the HPE OneView Appliance

- From the Top-Level menu, select **Settings**

The screenshot shows the HPE OneView Top-Level menu. The 'Settings' option is highlighted with a red arrow. Other options include General, Servers, Hypervisors, Networking, Storage, and Facilities.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the Settings page, find the Backup Section. Select **Create Backup**

The screenshot shows the HPE OneView Settings page with the 'Backup' section selected. A red arrow points to the 'Create backup' button. Other options in the Backup section include 'Download backup' and 'Download most recent backup'.

- The user will be taken to the backups page and the backup will immediately begin.

The screenshot shows the HPE OneView Backups page. A red arrow points to the progress bar for a backup task. The status bar indicates 'Create backup' and 'Administrator 8/23/16 12:28:30 pm'.

- Once the backup is finished the user will be presented with the option to **Download most recent backup**

The screenshot shows the HPE OneView Backups page. A red arrow points to the 'Download most recent backup' link. The status bar indicates 'Create backup' and 'Administrator 8/23/16 12:29:46 pm'. Below the link, it says 'Backup completed and ready to download.'

- The file will be saved to the users Downloads folder.

**Backup**

- Create backup

Backup completed and ready to download.  
Backup DMG\_backup\_2016-08-23.17280.bkp was created by Administrator.

[Download most recent backup](#)

[Details](#)

**Actions**

Administrator 8/23/16 12:28:46 pm

**Remote Backup Location**

[Edit backup settings](#)

**Schedule**

[Edit backup settings](#)

[DMG\\_backup\\_2016-08-23.17280.bkp](#) 35.2/35.2 MB, 0 sec left

HPE OneView by Dell EMC for Production - HPE Confidential  
[Show all downloads...](#)

## Restoring an HPE OneView Appliance from Backup

HPE OneView allows for the restoration of the configuration and imported devices from a backup file. This section will describe how to restore the HPE OneView Appliance from backup.

- From the Top-Level menu, select **Settings**

GENERAL	SERVERS	HYPERSOURCES	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups		
	Server Hardware		Logical Switches	SAN Managers	
	Server Hardware Types		Switches		

- From the Settings page, click **Backup**

**Appliance**

Firmware: 5000-054675

Appliance IP address: 172.16.80.254

Primary DNS: 172.16.80.254

Networking

Host name: DMG.local

Appliance IP address: 172.16.80.254

Gateway address: 172.16.80.254

Primary DNS: 172.16.80.254

Time and Locale

Time: 8/25/16 11:09:51 am (UTC -0400)

Locale: English (United States)

Proxy

Actions

[Create backup](#)

[Download backup](#)

- From the Backup section, open the Actions Menu and select **Restore from backup**.

**Backup**

General

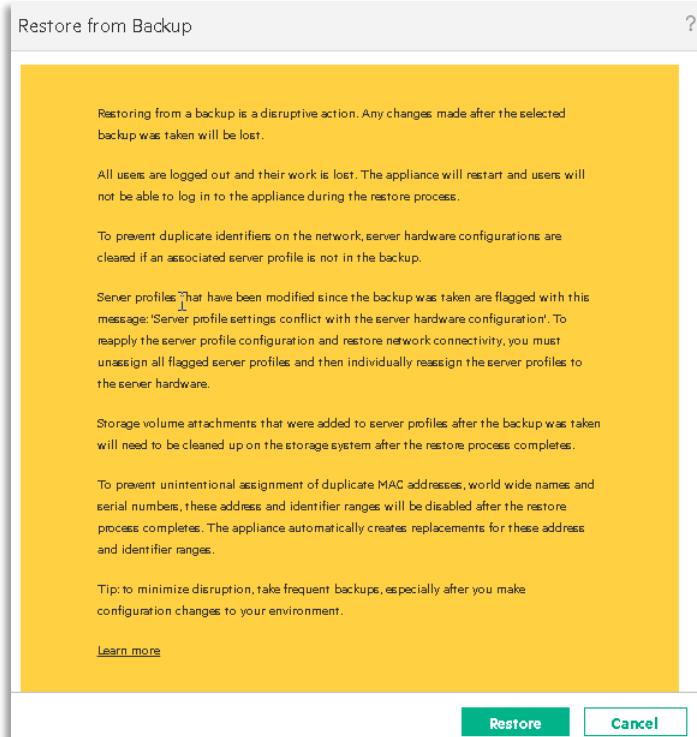
Last downloaded backup: Aug 25 12:28:00 pm (2 days ago)  
created at: Filename DMG\_backup\_2016-08-25.17280.bkp

Current backup created at: Aug 25 12:28:00 pm (2 days ago) by Administrator  
Filename DMG\_backup\_2016-08-25.17280.bkp

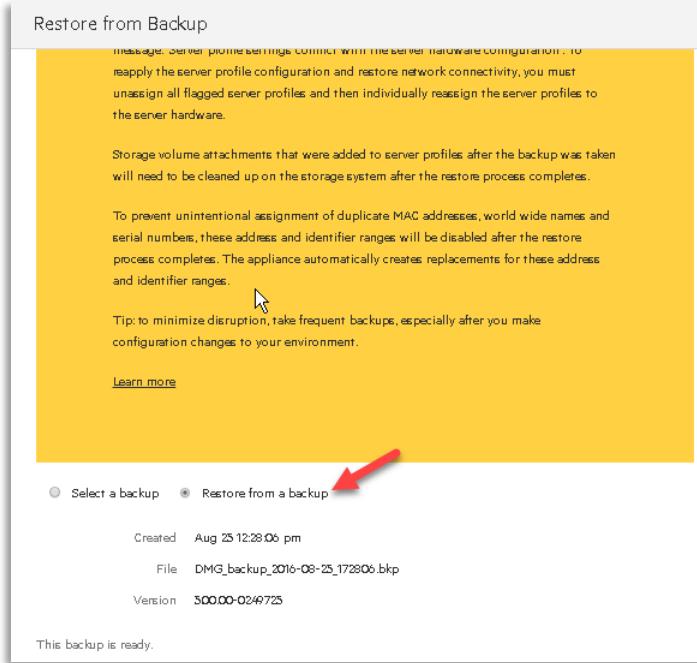
**Actions**

- Create backup
- Download backup
- Restore from backup**
- Edit backup settings

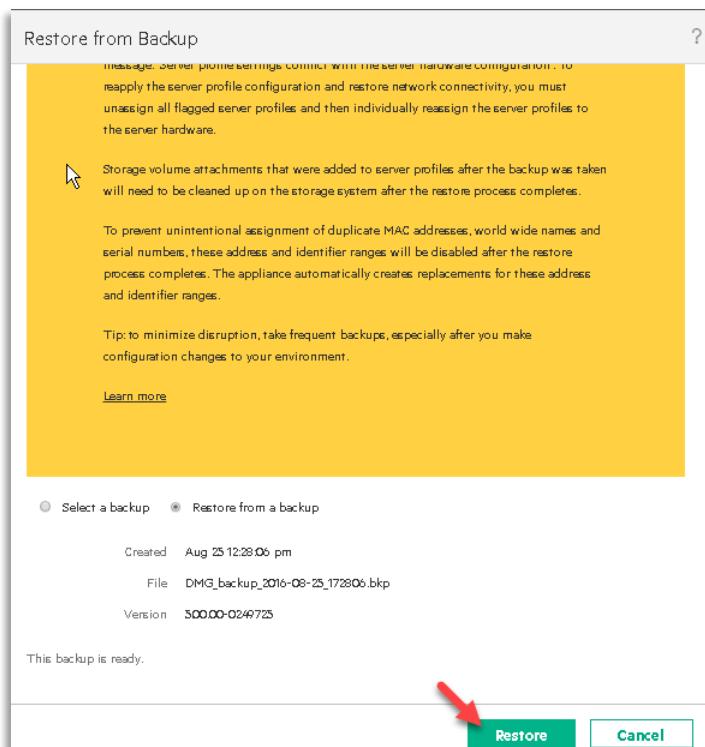
#### 4. Scroll to the bottom of the Restore from Backup Dialog window



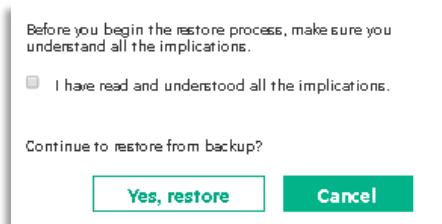
#### 5. Select the backup file that the HPE OneView appliance will be restored to.



#### 6. Click **Restore**



#### 7. Confirm that you want execute the restore process, then click **Yes Restore**



#### 8. The restore process will begin.

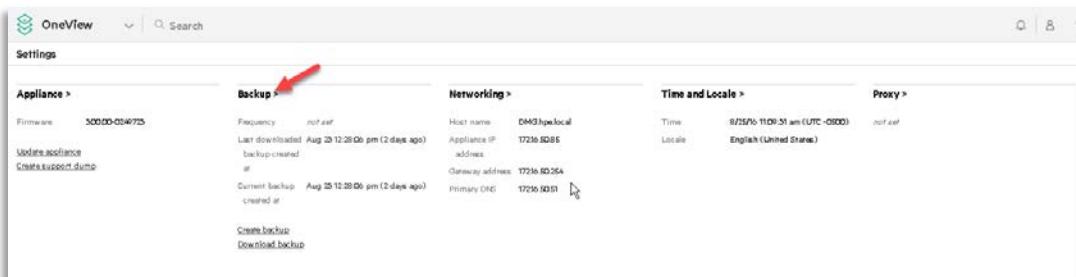
## Setting a remote Backup location and Schedule for Backups

HPE OneView allows for the scheduled backing up of the configuration and imported devices to a remote file store. This section will describe how to configure the settings of the remote backup of the HPE OneView Appliance

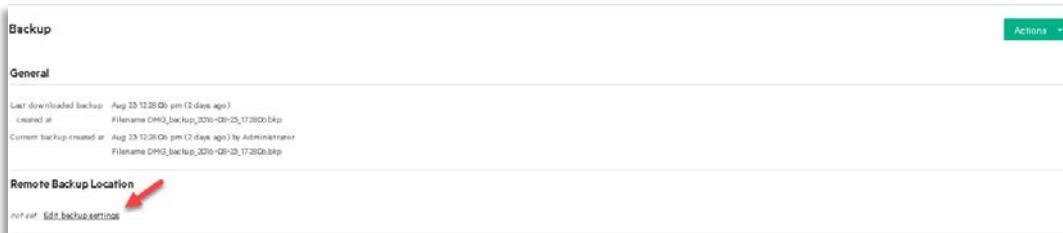
#### 1. From the Top-Level menu, select **Settings**

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES	Settings
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers	
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices	
Reports	Logical Enclosures		Logical Interconnects	Storage Systems SANS	Unmanaged Devices	
	Enclosures		Interconnects	SAN Managers		
	Rack Managers		Logical Switch Groups			
	Server Hardware		Logical Switches			
	Server Hardware Types		Switches			

#### 2. From the Settings page, select **Backup**



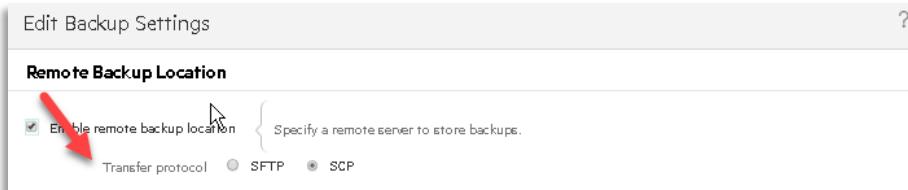
3. From the backup page, select **Edit Backup Settings**.



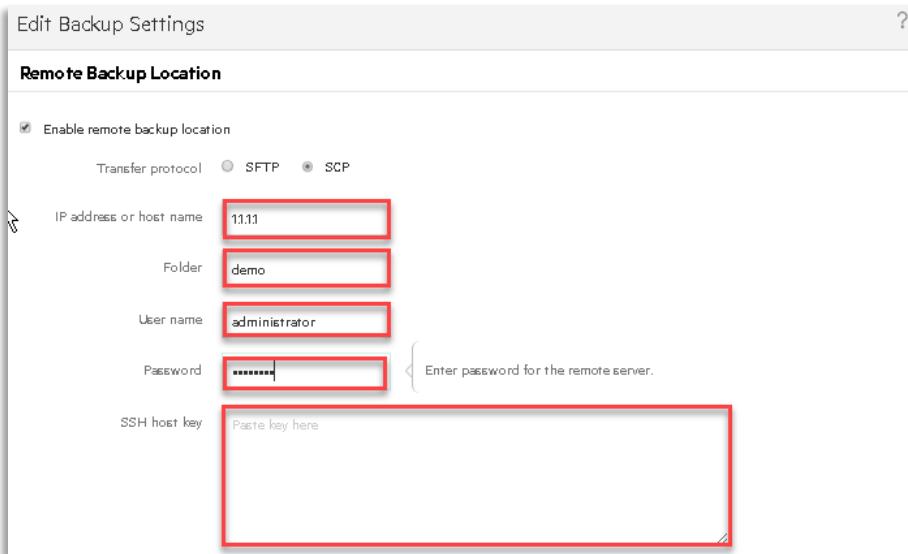
4. From the Edit Backup Settings dialog window, check the box **Enable remote backup location**



5. Select the Transfer Protocol to be used to upload your backup file to the remote location.



6. Enter the details for the host that the file will be uploaded to



7. In the Schedule section, use the drop-down list to select the frequency of the backups

**Remote Backup Location**

Enable remote backup location

Transfer protocol: SFTP (radio button selected)

IP address or host name: 1.1.1

Folder: demo

User name: administrator

Password: \*\*\*\*\*

SSH host key: Paste key here

**Schedule**

Frequency: not set (selected)

- Weekly
- Daily

#### 8. Select and configure the scheduled frequency of the backups

**Edit Backup Settings**

Transfer protocol: SFTP (radio button selected)

IP address or host name: 1.1.1

Folder: demo

User name: administrator

Password: \*\*\*\*\*

SSH host key: Paste key here

**Schedule**

Frequency: Weekly

Sunday  Monday  Tuesday  Wednesday  
 Thursday  Friday  Saturday

Time: 19:00 (UTC -0800)

#### 9. Select **OK** to apply the changes to the backup settings

IP address or host name: 1.1.1

Folder: demo

User name: administrator

Password:

SSH host key: Paste key here

**Schedule**

Frequency: Weekly

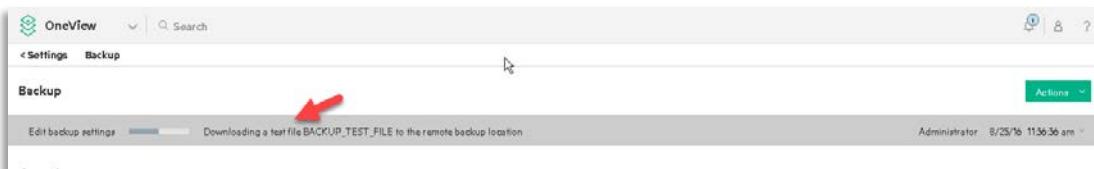
Sunday  Monday  Tuesday  Wednesday  
 Thursday  Friday  Saturday

Select the days of the week on which to take a backup.

Time: 19:00 (UTC -0500)

Reset: Monday OK Cancel

10. The new settings will be tested for accuracy.

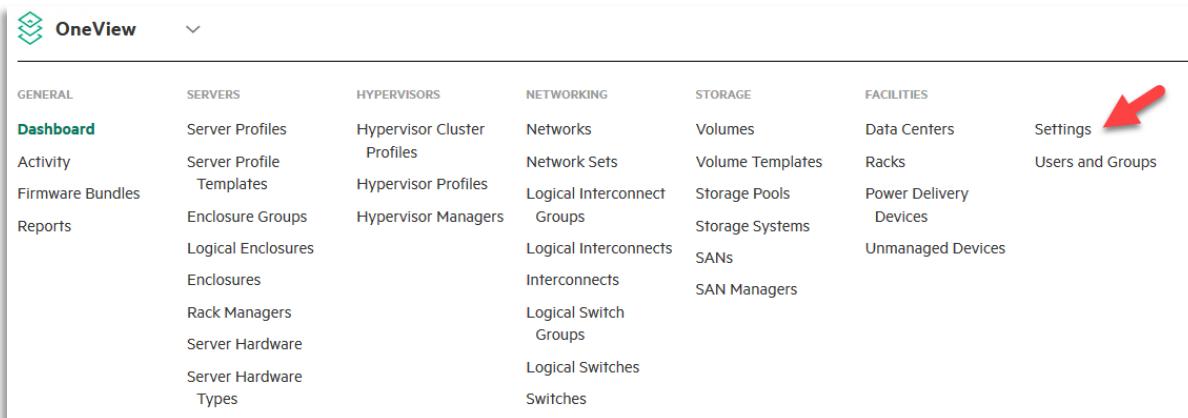


## Setting up Remote Support for supported devices

HPE OneView contains support automation functionality for Gen 8 and newer devices. These devices will have cases for them created automatically through the remote support functionality. If Insight Online is enabled, then the information will be visible within the HPE Support Center.

Note: HPE OneView supports ProLiant BL, DL and Apollo G7 and newer devices however the Remote support functionality is not available on ProLiant G6 and G7 devices. To enable support automation on these devices please use Insight Remote Support.

1. From the Top-Level menu, select **Settings**



2. From the Settings page, find the Remote Support Section and select **Remote Support**

**Settings**

**Appliance >**

- Firmware: 50000-0046725
- Frequency: not set
- Last download: Aug 25 12:28:00 pm (2 days ago)
- Backup created: at
- Current backup: Aug 25 12:29:06 pm (2 days ago)
- Created at:

**Licenses >**

HPE OneView: 2 available

**Security >**

Directories: Local default

**Networking >**

Host name: DHCHplocal

**Time and Locale >**

Time: 08/26 12:25:00 pm (UTC -0600)

**Proxy >**

Locale: English (United States)

**Remote Support >**

Alert email filters: Disabled

Filters: none

**Scopes >**

none

**Activity >**

no active alerts

**Address and Identifiers >**

Read community: **rwmon**

String: **string**

Trap destinations: **zone**

IPv4 Address: Available

MAC Address: 10:61:62

World Wide: 10:61:62

Name: **46610**

Serial Numbers: **46610**

**Remote Support >**

Remote Support: Disabled

Connected to: No

Registration: Not registered

Serial: **eth0**

Insight Online: Disabled

3. On the Remote Support page, select **Edit** from the Actions menu

**OneView** | Search

< Settings    Remote Support

**Remote Support** | General | **Edit** | Actions

**General**

Remote Support: **Enabled**

Connected to HPE: **No**

Consent to be contacted by HPE or HPE authorized reseller: **No**

4. On the Edit Remote Support dialog window, check the box **Enable Remote Support**

**Edit Remote Support**

**General**

Enabling HPE Remote Support configures your monitored devices to be remotely supported and/or serviced. Service, diagnostic, configuration, telemetry and contact information will be securely transmitted to HPE. No other business information is collected and the data is managed according to the HPE Data Privacy policy. [Learn more](#)

Enable remote support

5. In the Registration Information section of the Edit Remote Support dialog window, enter the **Company Name**

**Edit Remote Support**

**General**

Enabling HPE Remote Support configures your monitored devices to be remotely supported and/or serviced. Service, diagnostic, configuration, telemetry and contact information will be securely transmitted to HPE. No other business information is collected and the data is managed according to the HPE Data Privacy policy. [Learn more](#)

Enable remote support

I consent to having HPE or my HPE authorized reseller contact me to discuss optimizing my IT environment. [Learn more](#)

**Registration Information**

Registration status: Not registered

Company name: **[Redacted]**

6. Enter the **Initial Contact Information**

Registration status: Not registered

Company name: Demo

**Initial Contact**

First name: [Redacted]

Last name: [Redacted]

Email address: [Redacted]

Preferred language: English

Phone number: [Redacted]

Alternate phone number: [Redacted] optional

Special instructions: [Redacted] optional

After registration, additional contacts may be specified and any contact may be set as the default.

7. Enter the **Default Data Center Address**. This needs to be where the servers are physically located because this is where the parts will be sent.

Address line 1: [Redacted]

Address line 2: [Redacted] optional

City: [Redacted]

State/Province: [Redacted]

Postal code: [Redacted] optional

Country: Search [Redacted]

Time zone: Search [Redacted]

After registration, additional addresses may be specified for each datacenter.

**Default Data Center Address**

Address line 1: [Redacted]

Address line 2: [Redacted] optional

City: [Redacted]

State/Province: [Redacted]

Postal code: [Redacted] optional

Country: Search [Redacted]

Time zone: Search [Redacted]

Register with Hewlett Packard Enterprise

8. Click **Register with Hewlett Packard Enterprise**

Initial Contact  
Default Data Center Address

Address line 1: 11445 Compaq Center Drive West

Address line 2: optional

City: Houston

State/Province: Texas

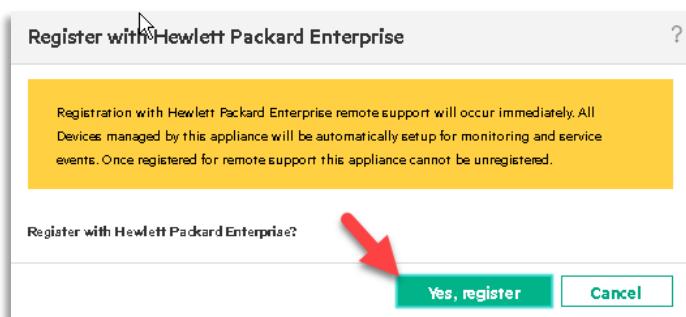
Postal code: 77070 optional

Country: United States

Time zone: Canada/Central (GMT-5)

[Register with Hewlett Packard Enterprise](#)

9. Click **Yes, Register** to initialize the registration with Hewlett Packard Enterprise.



### (Optional) Setting up Insight Online

Once an HPE OneView instance is registered with HPE then Insight Online can be enabled. Enabling Insight Online will make case, warranty and other information visible within the HPE Support Center.

1. From the Top-Level menu, select **Settings**

GENERAL	SERVERS	HYPERVERSORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. From the Settings page, find the Remote Support Section and select **Remote Support**

The screenshot shows the 'Settings' section of the HPE OneView interface. It includes tabs for Appliance, Backup, Networking, Time and Locale, Proxy, Licenses, Security, Notifications, Scopes, Activity, SNMP, Addresses and Identifiers, and Remote Support. A red arrow points to the 'Remote Support' tab.

3. On the Remote Support page, select **Edit** from the Actions menu

The screenshot shows the 'Edit Remote Support' dialog window. It has tabs for General, HP Insight Online, and Insight Online. A red arrow points to the 'Actions' dropdown menu at the top right, which contains options like 'Edit' and 'Delete'.

4. On the Edit Remote Support dialog window, scroll down to the HPE Insight Online section. Check the box **Enable HPE Insight Online Integration**.

The screenshot shows the 'Edit Remote Support' dialog window with the 'HP Insight Online' tab selected. A red arrow points to the 'Enable HP Insight Online Integration' checkbox, which is currently unchecked.

5. Enter the passport account user name and password to register this HPE OneView instance with HPE Insight Online

The screenshot shows the 'Insight Online' configuration dialog window. It has tabs for General and HP Insight Online. Under the HP Insight Online tab, there is a checkbox for 'Enable Insight Online integration' (which is checked) and two input fields: 'HPE Passport user name' and 'HPE Passport password'. A red arrow points to the 'Enable Insight Online integration' checkbox.

6. Click **OK** to apply the changes

The screenshot shows the 'Insight Online' configuration dialog window after changes have been applied. The 'Enable Insight Online integration' checkbox is checked, and the 'HPE Passport user name' field contains 'rspl.onboarding@oneview.com'. A red arrow points to the 'Enable Insight Online integration' checkbox.

## Viewing Reports

HPE OneView provides a pre-defined list of reports giving the administrators and users information based on HPE OneView inventory, configuration, health status and more. Reports can also be pulled from the HPE OneView appliance via REST APIs.

1. From the Top-Level menu, select **Reports**

The screenshot shows the HPE OneView interface with the 'Reports' option highlighted in red. The menu categories include General, Servers, Hypervisors, Networking, Storage, and Facilities.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. From the left-hand menu, select the desired report. For this example, we will select the **Server Firmware Inventory** Report.

The screenshot shows the 'Reports' page with the 'Server firmware inventory' report selected. A red arrow points to the 'Server firmware inventory' item in the list.

Name	Description
Active alerts	Firmware version inventory on all servers
Enclosure bay inventory	Number of servers by ROM firmware version
Enclosure inventory	
Interconnect inventory	
Local users	
<b>Server firmware inventory</b>	<b>ROM versions</b> Number of servers by ROM firmware version
Server inventory	
Server profiles inventory	

3. The selected report will be displayed

The screenshot shows the detailed view of the 'Server firmware inventory' report. It includes sections for ROM versions and ILO firmware versions, along with a table of server hardware details.

**ROM versions**

ROM Version	Count
I31 09/30/2011	13
I34 v1.30 08/26/2014	13
I38 v1.30 08/03/2014	8
P89 v1.30	2
P71 09/30/2011	1
P70 09/30/2010	1

**ILO firmware versions**

ILO Version	Count
2.20 Rev 01 2014	30
2.20 Rev 02 2014	10
2.20 Rev 03 2014	5
P70 v1.30	2
P71 v1.30	1
P70 v1.20	1

**Server Hardware**

Name	Bay Number	Model	Processor Type	Memory (MB)	Component Names	Component Location	Component Versions
1T218615	n/a	ProLiant DL360p Gen8	Intel(R) Xeon(R) CPU E5-2620	28244	System ROM Intelligent Provisioning ILO	System Board System Board	P70 09/30/2011 Unknown 2.20 Rev 01 2014
1T218619	n/a	ProLiant DL360p Gen8	Intel(R) Xeon(R) CPU E5620	32768	ILO	System Board	2.20 Rev 01 2014
1T218621	n/a	ProLiant DL360 Gen9					

## Exporting Reports

Reports within HPE OneView can be exported to Excel XLSX or CSV files for use in other applications.

1. From the Top-Level menu, select **Reports**

The screenshot shows the HPE OneView interface with the left-hand menu expanded. The 'Reports' option under the 'Dashboard' category is highlighted with a red arrow. The menu categories include GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under SERVERS, there are sub-options like Server Profiles, Hypervisor Cluster Profiles, and Enclosure Groups.

2. From the left-hand menu, select the desired report. For this example, we will select the **Server Firmware Inventory** Report.

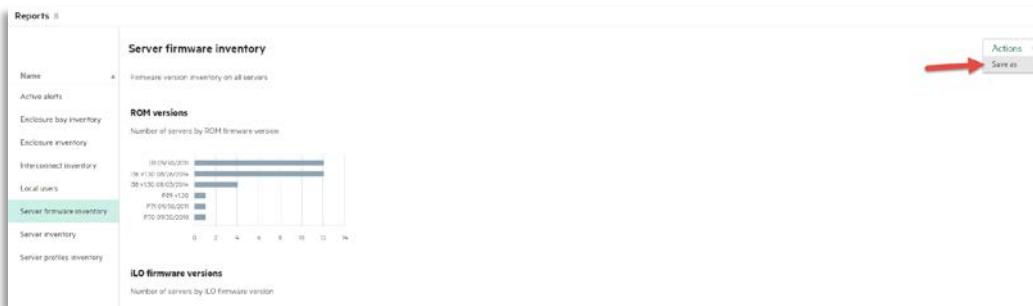
The screenshot shows the 'Reports' page with various report cards listed on the left. The 'Server firmware inventory' card is highlighted with a red arrow. It displays a bar chart titled 'ROM versions' showing the number of servers by ROM firmware version. The chart includes data points for I31 v09/30/2011, I34 v1.30 08/26/2014, I38 v1.30 08/03/2014, P89 v1.30, P71 09/30/2011, and P70 09/30/2010.

3. The selected report will be displayed

The screenshot shows the detailed view of the 'Server firmware inventory' report. It includes two bar charts: 'ROM versions' (with data for I31, I34, I38, P89, P71, P70) and 'ILO firmware versions' (with data for ILO v2.20 Rev 01 2014, ILO v2.20 Rev 01 2016, ILO v2.20 Rev 01 2018). Below the charts is a table of server hardware details:

Name	Model	Processor Type	Memory (MB)	Component Name	Component Location	Component Version
T7216.615	ProLiant DL360 Gen8	Intel(R) Xeon(R) CPU E5-2650 0 @ 1.80GHz	28744	System ROM	System Board	P71 09/30/2011
T7216.619	ProLiant DL360 Gen8	Intel(R) Xeon(R) CPU E5620 32768		ILO	System Board	Unknown
T7216.621	ProLiant DL360 Gen8	Intel(R) Xeon(R) CPU E5620 32768			System Board	2.20 Rev 01 2014

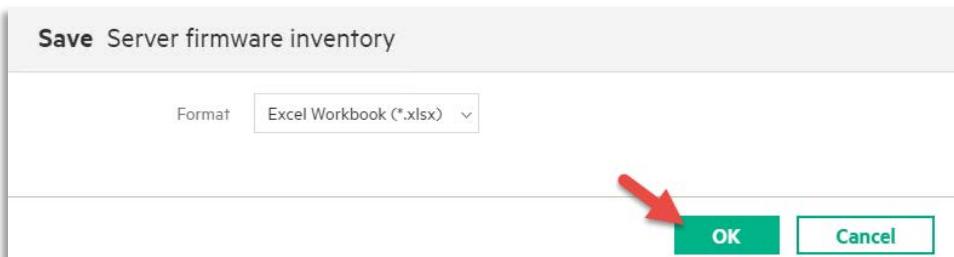
4. From the Actions menu, select **Save As**.



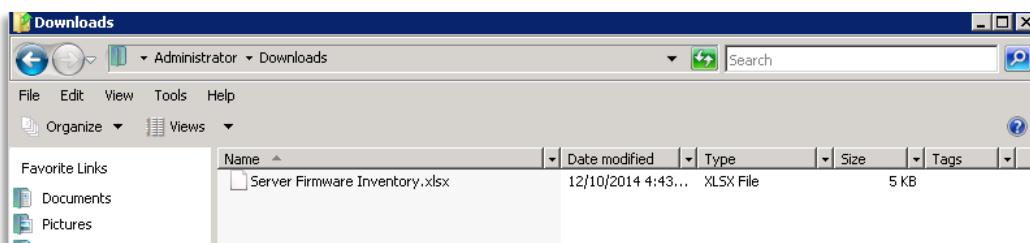
5. Select the desired output format – Excel Workbook (\*.xlsx) or CSV MS-DOS (\*.csv) using the dropdown menu.



6. Click **OK**



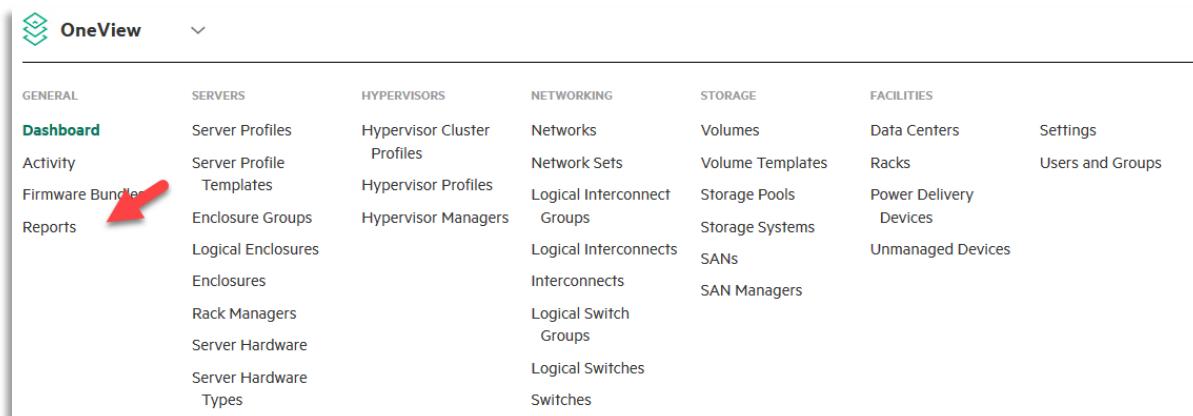
7. The file will be saved in the Downloads folder of the local user.



# Printing Reports

Reports within HPE OneView can be printed in PDF format.

1. From the Top-Level menu, select **Reports**



2. From the left-hand menu, select the desired report. For this example, we will select the **Server Firmware Inventory** Report.

The screenshot shows the HPE OneView interface with the 'Reports' section selected. The 'Server firmware inventory' item is highlighted with a red arrow. Other items in the list include Active alerts, Enclosure bay inventory, Enclosure inventory, Interconnect inventory, Local users, Server inventory, and Server profiles inventory. To the right of the list, there is a chart titled 'ROM versions' showing the number of servers by ROM firmware version. The chart has six bars with the following data:

ROM Version	Count
i31 09/30/2011	13
i36 v1.30 08/26/2014	13
i38 v1.30 08/03/2014	3
P89 v1.30	2
P71 09/30/2011	2
P70 09/30/2010	1

3. The selected report will be displayed

The screenshot shows the 'Server firmware inventory' report page. It includes three main sections: 'ROM versions' (chart), 'ILO firmware versions' (chart), and 'Server Hardware' (table). The 'ROM versions' chart shows the following data:

Version	Count
i31 09/30/2011	13
i36 v1.30 08/26/2014	13
i38 v1.30 08/03/2014	3
P89 v1.30	2
P71 09/30/2011	2
P70 09/30/2010	1

The 'ILO firmware versions' chart shows the following data:

Version	Count
2.20 Rev 01 2014	30
2.70 Rev 01 2014	30

The 'Server Hardware' table lists the following components:

Name	Bay Number	Model	Processor Type	Memory (MB)	Component Name	Component Location	Component Version
172.16.6.5	n/a	ProLiant DL360p Gen8	Intel(R) Xeon(R) CPU E5-2620 500, 0 @ 1.90GHz	26244	System ROM	System Board	P71 09/30/2011
172.16.6.10	n/a	ProLiant DL360p Gen8	Intel(R) Xeon(R) CPU E5-2620 500, 0 @ 1.90GHz	22768	Intelligent Provisioning	System Board	Unknown
172.16.6.31	n/a	ProLiant DL360 Gen9	Intel(R) Xeon(R) CPU E5-2620 500, 0 @ 1.90GHz	22768	ILO	System Board	2.20 Rev 01 2014

4. From the browsers context menu select **Print**.

The screenshot shows the 'Server firmware inventory' report page with a red arrow pointing to the 'Print...' option in the browser's context menu. The context menu also includes options like 'Find...', 'New window', 'New incognito window', 'History', 'Downloads', 'Bookmarks', 'Zoom', 'Edit', 'Settings', and 'Exit'.

5. The file can now be printed or saved in PDF format.



## Creating New Users

HPE OneView supports the methodology of differing roles within a Composable Infrastructure. In this section we will create a new user for the HPE OneView environment.

- From the top-level menu, select **Users and Groups**

GENERAL	SERVERS	HYPERVERSORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- Select the **+Add User** button.

Name	Role	Actions
administrator	Infrastructure administrator	
HardwareSetup	Hardware setup	

- Provide a *login name*, *Full name* (optional), then enter and confirm the password that will be used for the account.

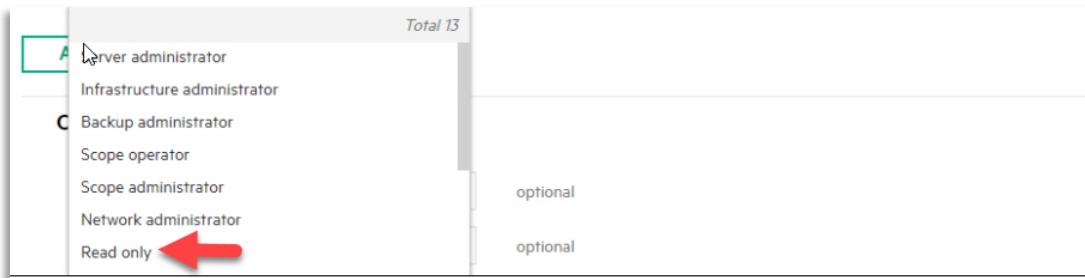
Login name	<input type="text"/>
Full name	<input type="text"/> optional
Initial password	<input type="password"/>
Confirm password	<input type="password"/>

- Select the type of Role that this user will have.

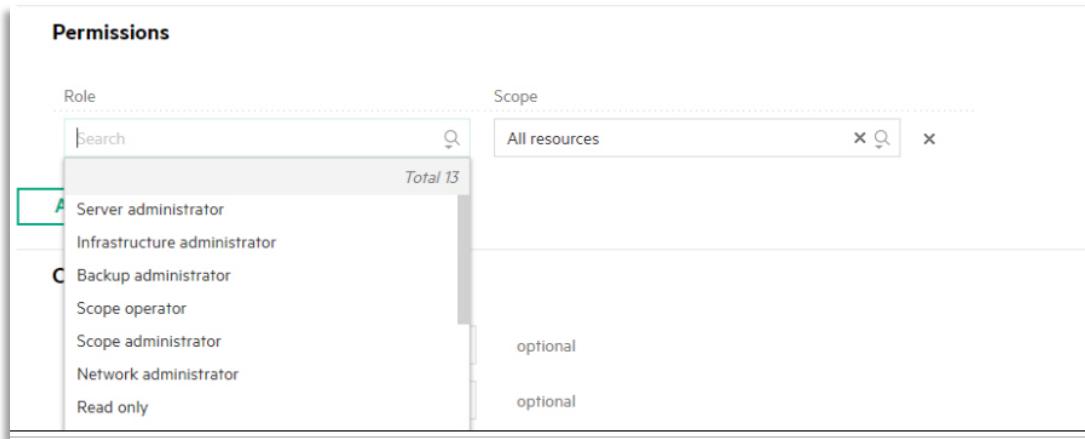
*Specialized accounts* can be limited to Backup functions, Network functions or Server functions.

*Full accounts* are administrators for all segments.

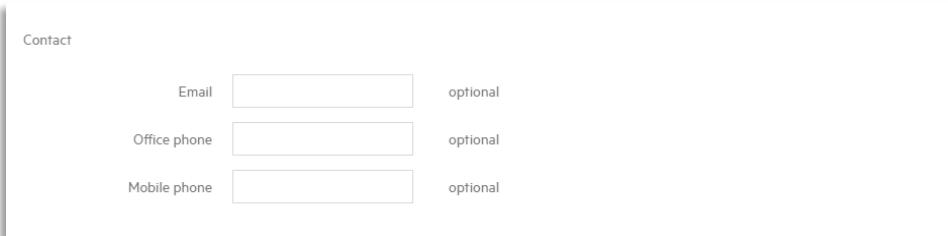
Read only accounts will be able to view information within HPE OneView but not change any information.



5. Select the functions available to the account



6. Contact Email, Office and Mobile Phone numbers can be added if desired.



7. Select **Add or Add+** button to create the account.

Log in name: Demo

Full name: Demo User optional

Initial password:  Confirm password:

**Permissions**

Role: Search Scope: All resources

**Add permission**

**Contact**

Email: awesome@hpe.com optional

Office phone: 555-555-12345 optional

Mobile phone: optional

Changed: Email to "awesome@hpe.com"

Add Add + Cancel

## Deleting Existing Users

HPE OneView supports the methodology of differing roles within a Composable Infrastructure. In this section we will delete an existing user in the HPE OneView environment.

- From the top-level menu, select **Users and Groups**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- Select the user that needs to be deleted from the left-hand menu

The screenshot shows a table with columns 'Name' and 'Role'. The 'Demo' row is highlighted with a green background. The 'Role' column for 'Demo' lists 'Storage administrator, Server administrator, Network administrator'. The rest of the table rows are white.

Name	Role
administrator	Infrastructure administrator
Demo	Storage administrator, Server administrator, Network administrator
HardwareSetup	Hardware setup

### 3. Select **Remove** from the Actions menu

The screenshot shows the 'Demo' user details page. The 'Actions' menu is open, showing 'Add user', 'Edit', and 'Remove' options. The 'Remove' option is highlighted with a red arrow.

### 4. Confirm your selection by selecting the **Yes, remove** button to delete the account.

The screenshot shows a confirmation dialog titled 'Remove Demo'. It asks 'Continue with remove?'. There are two buttons: 'Yes, remove' (highlighted with a red arrow) and 'Cancel'.

## Creating Groups

HPE OneView supports the methodology of differing roles within a Composable Infrastructure. In this section we will create a new group in the HPE OneView environment.

### 1. From the top-level menu, select **Users and Groups**.

The screenshot shows the main navigation menu. Under the 'Settings' category, the 'Users and Groups' link is highlighted with a red arrow.

### 2. Open the Actions menu and select **Add Groups**

The screenshot shows the 'Users and Groups' section of the HPE OneView interface. It displays two users: 'administrator' and 'Demo'. The 'administrator' user is selected, showing their details: Login name (administrator), Full name (Default appliance administrator), Role (Infrastructure administrator), and Contact. To the right of the user list is a context menu with the 'Actions' option expanded, highlighting 'Add group'.

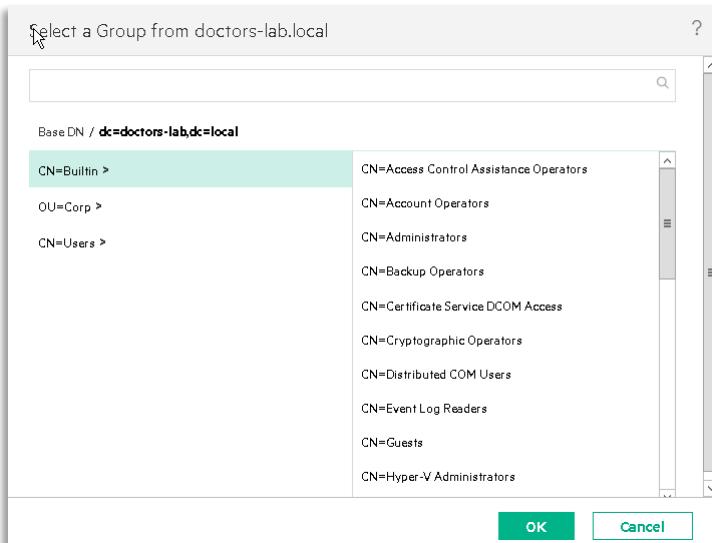
### 3. Select the **Select Group** button

The screenshot shows the 'Add Group' dialog. It includes fields for 'Directory' (set to 'doctors-lab.local'), 'Group' (empty input field), and a 'Select group' button. Below these are role selection options ('Specialized' is selected) and a list of roles: Backup administrator, Network administrator, Server administrator, Storage administrator, and Software administrator. At the bottom are 'Add', 'Add +', and 'Cancel' buttons.

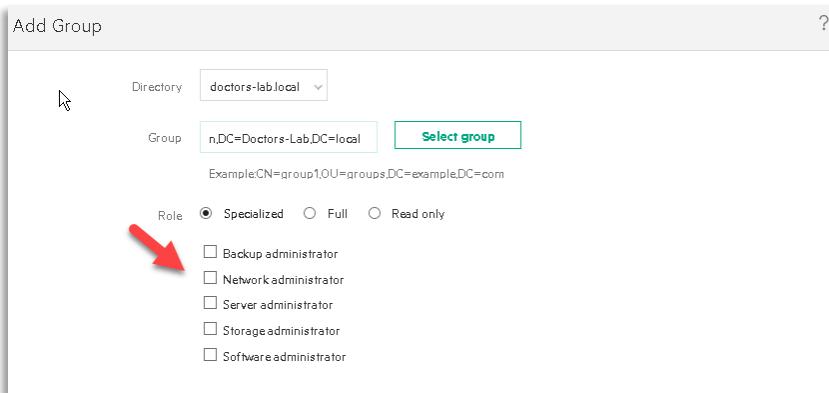
### 4. Provide the credentials to authenticate and click **Connect**.

The screenshot shows the 'Connect to' dialog. It has a note about using the fields to verify server connection. It includes 'User name' and 'Password' fields, both of which are highlighted with red boxes. There is also a 'Show password' checkbox. At the bottom are 'Connect' and 'Cancel' buttons.

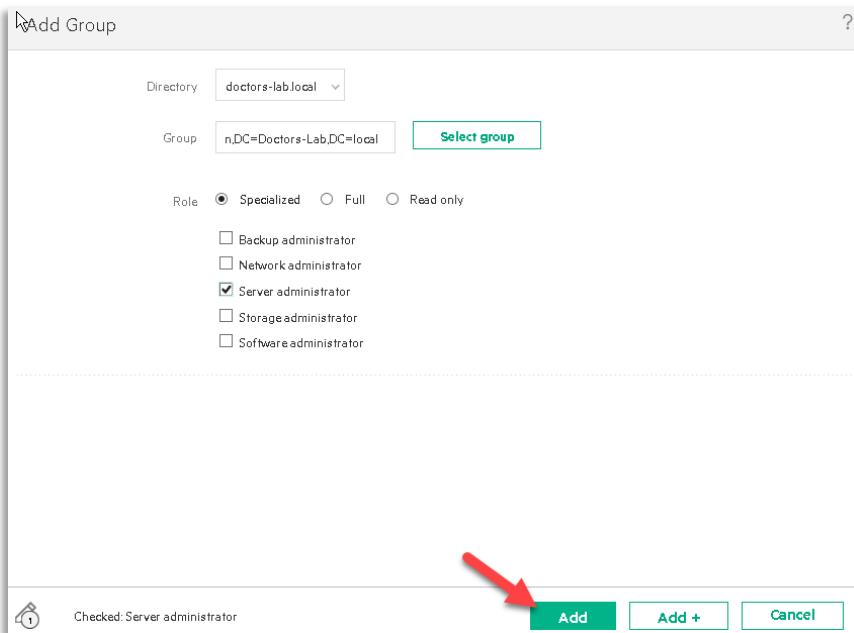
### 5. Once authenticated, select a group from the groups dialog window and click **OK**.



#### 6. Assign the role that is needed for that directory group.



#### 7. Click **Add** to close the Add Group Dialog window



## Changing User Permissions

HPE OneView supports the methodology of differing roles within a Composable Infrastructure. In this section we adjust the permissions for a user within the for the HPE OneView environment.

- From the Top-Level Menu, select **Users and Groups**

The screenshot shows the HPE OneView navigation bar with several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under each category, there are sub-links. The 'FACILITIES' category has a 'Settings' link, which is highlighted with a red arrow. Below 'Settings' is the 'Users and Groups' link.

- Select the user you want to edit from the left-hand menu

The screenshot shows a list of users. The 'Demo' user is selected, and its details are displayed in the right panel. The 'Edit' button in the list is highlighted with a red arrow. The right panel shows fields for Login name (Edit), Full name, Role (Infrastructure administrator), Contact, Email (unset), Office phone (unset), and Mobile phone (unset).

- Select **Edit** from the Actions menu.

The screenshot shows the same user list and details as the previous step. A red arrow points to the 'Edit' button in the list. Another red arrow points to the 'Edit' option in the 'Actions' dropdown menu, which is also highlighted.

- Edit the information that needs to be changed.

The screenshot shows the 'Edit Edit' dialog box. It contains fields for 'Login name' (with an 'Edit' button), 'Full name' (optional), 'Initial password' (optional), and 'Confirm password' (optional). Below these are radio buttons for 'Role': 'Specialized' (selected), 'Full', and 'Read only'. The 'Contact' section includes fields for 'Email' (optional), 'Office phone' (optional), and 'Mobile phone' (optional). At the bottom right are 'OK' and 'Cancel' buttons.

5. Click the **OK** button to save the changes that have been made.

This screenshot is identical to the one above, showing the 'Edit Edit' dialog box with user profile and contact information fields. A red arrow points to the 'OK' button at the bottom right of the dialog.

## Adding a Dashboard Panel to the HPE OneView Dashboard

HPE OneView allows the user to customize the Dashboard interface. The customization allows each user to pick the categories that will be presented to the user when they log in.

1. From the Top-Level Menu, select **Dashboard**

The screenshot shows the HPE OneView navigation bar. The 'Dashboard' link under the 'GENERAL' category is highlighted with a red arrow. The navigation bar also includes categories like SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES, each with a list of sub-links.

2. From the dashboard, select the **Pencil icon** to open the Dashboard Actions menu

The screenshot shows the HPE OneView Dashboard with four main status panels: 'Server Profiles 1 >', 'Server Hardware 32 >', 'Servers with profiles 32 >', and 'Blade bays 32 >'. Each panel displays a summary of resources with counts and status indicators. A red arrow points to the top right corner of the dashboard area, indicating the location of the Actions menu.

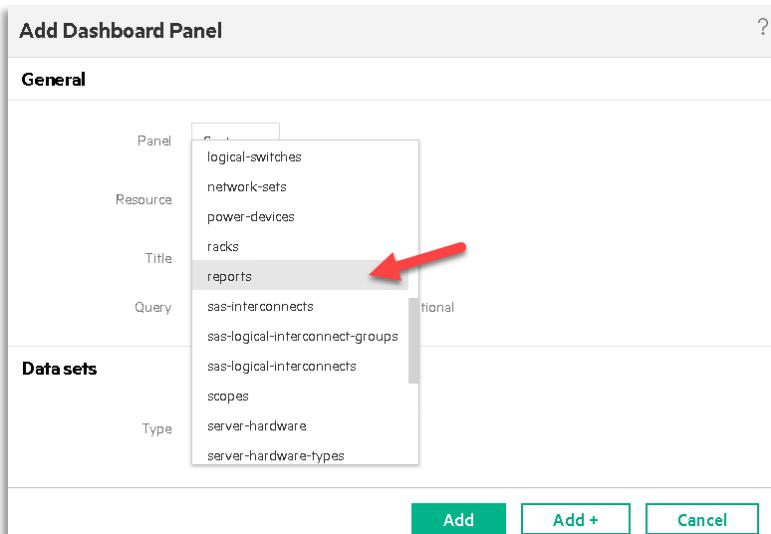
3. Select **Add** from the Actions menu

The screenshot shows the HPE OneView Dashboard Actions menu. The 'Add' option is highlighted with a red arrow. Other options visible include 'Reset' and a small gear icon.

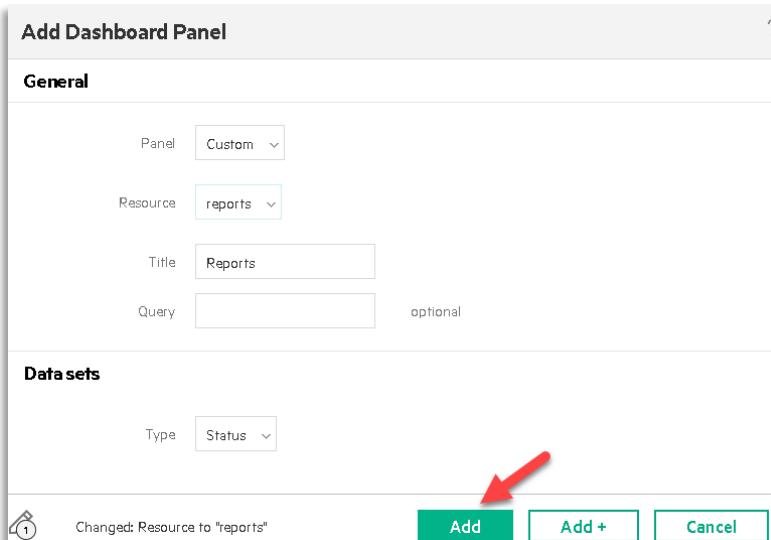
4. From the Add Dashboard Panel menu, select the information to be presented. In this example we will add a Dashboard Panel to show the reports available in HPE OneView. Click the **down-arrow** next to the resource drop-down list.

The screenshot shows the 'Add Dashboard Panel' dialog box. The 'General' tab is selected, showing fields for 'Panel' (set to 'Custom'), 'Resource' (set to 'All' with a red arrow pointing to the dropdown), 'Title' ('All Resources'), and 'Query' (optional). The 'Data sets' tab is also visible, showing a 'Type' dropdown set to 'Status'. At the bottom are 'Add', 'Add +', and 'Cancel' buttons.

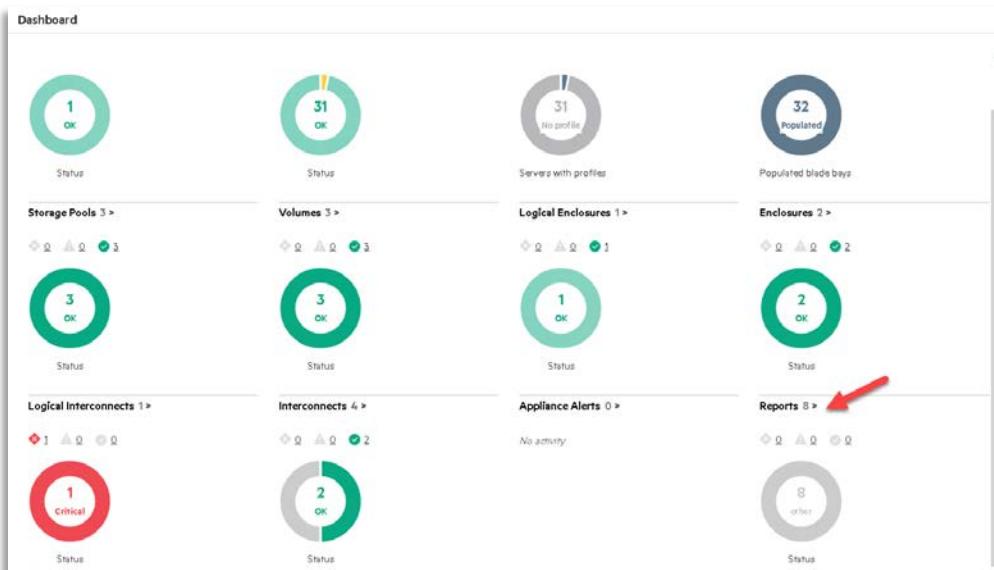
5. Scroll down the list and select **Reports**



6. Click **Add**



7. The Reports Dashboard panel is now available.



## Removing a Dashboard Panel from the HPE OneView Dashboard

- From the Top-Level Menu, select **Dashboard**

The screenshot shows the HPE OneView top-level menu. The 'Dashboard' option is highlighted with a red arrow. Other menu items include General, Servers, Hypervisors, Networking, Storage, and Facilities.

GENERAL	SERVERS	HYPERVERSORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- Hover your mouse over the item to be removed

The screenshot shows the HPE OneView dashboard with four main panels: Server Profiles, Server Hardware, Servers with profiles, and Blade bays. The 'Servers with profiles' panel is highlighted with a red box.

- Server Profiles: 1 OK
- Server Hardware: 32 OK
- Servers with profiles:** 32 OK (highlighted with a red box)
- Blade bays: 32 Populated

- To remove the item, select the X that appears

The screenshot shows the HPE OneView dashboard after the 'Servers with profiles' panel has been removed. A red arrow points to the 'X' icon that was used to remove the panel.

- Server Profiles: 1 OK
- Server Hardware: 32 OK
- Servers with profiles:** 32 OK (X icon)
- Blade bays: 32 Populated

- The item is removed from the dashboard

The screenshot shows the HPE OneView dashboard with all panels removed, leaving only the header and navigation bar.

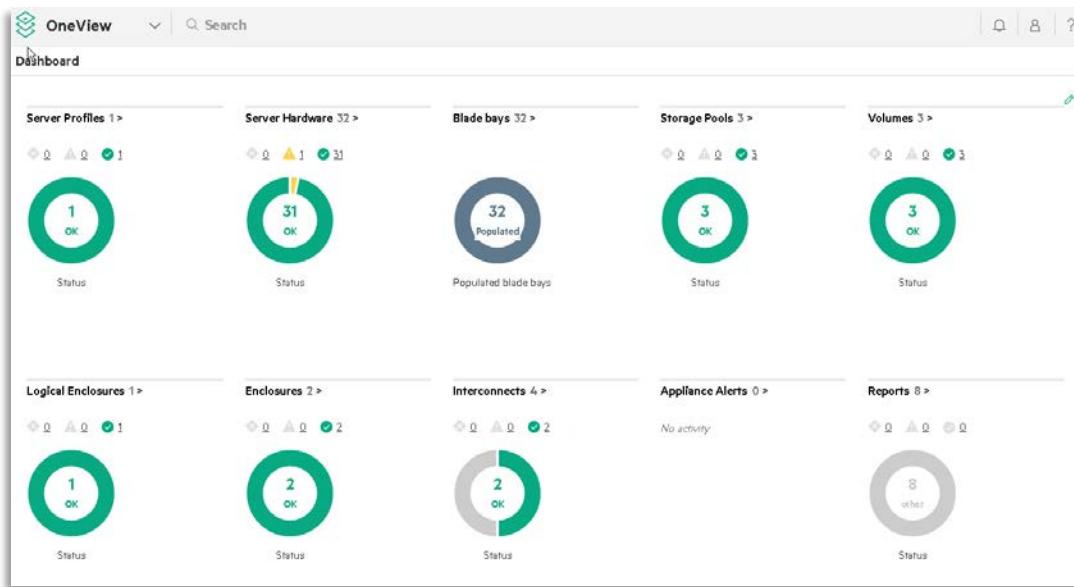
- Server Profiles: 1 OK
- Server Hardware: 32 OK
- Blade bays: 32 Populated
- Storage Pools: 3 OK

## Alerts and Monitoring

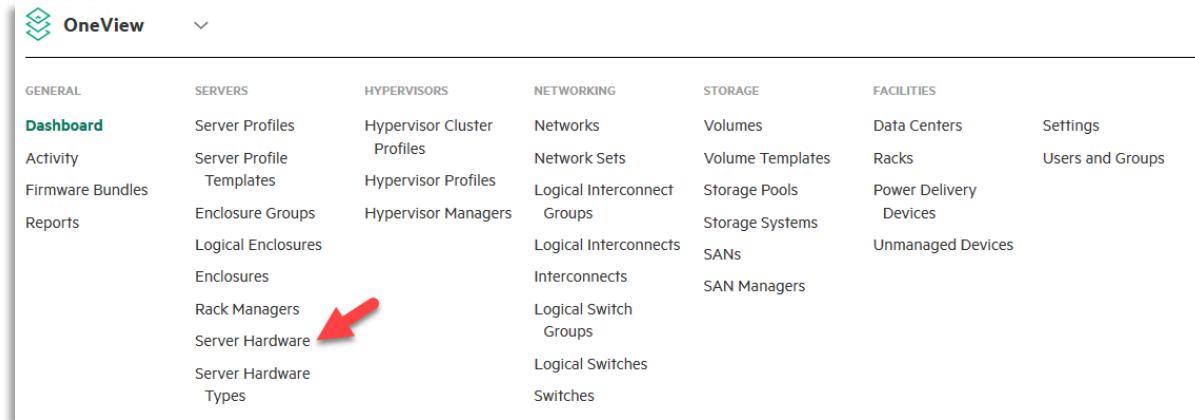
Prior to physical and power delivery configuration, HPE OneView provides a Utilization panel where a summary of the current usage of each metric available for a resource can be monitored. Each type of resource provides specific metrics that are collected from the management processor and displayed. The values depicted provide the value of the metric during the most recent five-minute period.

Having configured the physical and power delivery topology of your environment, you can now begin to monitor and analyze its use of power and cooling resources. Power utilization monitoring allows you to identify and eliminate areas of waste while thermal monitoring helps reduce overcooling and fix hot spots.

1. The **Dashboard**, which is the default view when logging into the appliance, provides an overview of activity and alerts.



2. From the top-level menu, select **Server Hardware**



3. Select the desired hardware resource from the left-hand menu.

4. The Utilization panel located within the details pane shows the metrics available for monitoring for the resource. The utilization metrics available to be monitored depends on the resource type:

- Server hardware: CPU, power (including power cap) and temperature
- Enclosures: power (including power cap settings) and temperature
- Power Delivery Devices: power

The screenshot shows the HPE OneView interface. On the left, a list of server hardware components is displayed, including Enc1, bay 1 through bay 16. Enc1, bay 3 is selected and highlighted in green. On the right, a detailed view of Enc1, bay 3 is shown under the 'Overview' tab. The 'Hardware' section provides basic information like state (Power on), profile applied (HyperV1), and model (ProLiant BL460c Gen8). The 'Utilization' section displays real-time metrics for CPU (0% of 8 cores), power (0 W of 373 W), and temperature (0 °F). The 'Ports' section lists the types and models of the ports, such as FlexibleLOM and Mezzanine ports.

### Note

If you wish to change the temperature and size parameters to be displayed in a localized fashion, you must set the default Language in your browser for HPE OneView to display them correctly.

5. Flyovers showing the past 24 hours' worth of CPU, Power or Temperature data are available by moving the pointer over the desired metric.

This screenshot is similar to the one above, showing the HPE OneView interface. The focus is on Enc1, bay 3. A flyover is active over the 'Temperature' section in the 'Utilization' panel. The flyover displays a graph titled 'Enc1, bay 3' showing the average temperature over the last 24 hours. The Y-axis represents temperature in degrees Fahrenheit (°F) from 50 to 80, and the X-axis represents time in hours from -24h to now. The graph shows a constant value of 0 °F.

6. Selecting the **Utilization** panel heading or selecting Utilization from the view menu allows display and navigation of all available history of a specified metric.

OR

7. Once selected, the details pane will show the first available metric for the device expanded. By default, the last 24 hours of information is shown on the graph. However, the date bar below the graph allows selecting any available date range to be displayed.

8. HPE OneView allows you to view areas in your data center that are insufficiently cooled due to various reasons such as poor airflow, concentration of excessive heat output, or wrap-around airflow at the ends of aisles. Likewise, it is possible to determine areas that are being overcooling and wasting cooling resources. HPE OneView's 3D visualization of the data center shows the peak observed temperature of each rack the last 24 hours.

## **Viewing Activity, Alerts and Tasks**

Various health alerts are recorded regarding the lifecycle management of your data center and IT equipment. This capability enables you to be notified of events that may arise such as:

- New blade server inserted
  - Create/Delete/Modify Networks
  - Firmware Update
  - Pre-Failure warnings
  - Uplink Status of Logical Interconnects
  - New potential overload conditions precipitated by addition of new hardware
  - Thermal capacity of devices in rack exceed specified thermal limit
  - Lack of power delivery redundancy to devices attached to power delivery devices

1. From the Top-Level Menu, select **Activity**.

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES	
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers	Settings
<b>Activity</b>	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	Users and Groups
<b>Firmware Bundles</b>	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices	
<b>Reports</b>	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices	
	Enclosures		Interconnects	SANs		
	Rack Managers		Logical Switch Groups	SAN Managers		
	Server Hardware		Logical Switches			
	Server Hardware Types		Switches			

2. This page is the master list of all activity within the appliance.

The screenshot shows the OneView Activity page with several annotations:

- A red box highlights the "All" button in the top navigation bar.
- A red box highlights the "Pin out Filters" button in the top navigation bar.
- A red box highlights the "Expand/Collapse Item" button next to the alert title.
- A red box highlights the "Alert Item" title.
- A red box highlights the "Resource" column header.
- A red box highlights the "Date" column header.
- A red box highlights the "State" column header.
- A red box highlights the "Owner" column header.
- A red box highlights the "The server profile is inconsistent with its server profile template." message.
- A red box highlights the "Demo SP Server Profiles" resource.
- A red box highlights the "6/16/16 6:11:25 am" date.
- A red box highlights the "1 hour ago" time.
- A red box highlights the "Active" state.
- A red box highlights the "unassigned" owner.
- A red box highlights the "Resolution" section text.
- A red box highlights the "Update from template" link.
- A red box highlights the "Edit" link.
- A red box highlights the "Notes" section.
- A red box highlights the "Write a note" input field.
- A red box highlights the "Clear State" button.
- A red box highlights the "Health category ServerProfile" section.
- A red box highlights the "Add a Note to Activity Details" button.
- A red box highlights the "Event details" link.
- A red box highlights the "Update" activity entry.
- A red box highlights the "The server is reporting an OK system health status" message.
- A red box highlights the "End1\_bay15" resource.
- A red box highlights the "6/15/16 7:35:58 pm" date.
- A red box highlights the "Cleared" state.
- A red box highlights the "unassigned" owner.
- A red box highlights the "The server is reporting an OK system health status" message.
- A red box highlights the "End2\_bay4" resource.
- A red box highlights the "6/15/16 7:35:58 pm" date.
- A red box highlights the "Cleared" state.
- A red box highlights the "unassigned" owner.
- A red box highlights the "The server is reporting an OK system health status" message.
- A red box highlights the "End2\_bay16" resource.
- A red box highlights the "6/15/16 7:35:58 pm" date.
- A red box highlights the "Cleared" state.
- A red box highlights the "unassigned" owner.

3. You can also expand the hardware resource (Server Hardware, Server Profile, Enclosure, Logical Interconnect, etc.) and look at the alert view to see the problem description. The details from the alert can most times be used to identify and help fix the problem.

The screenshot shows the OneView interface with the 'Server Profiles' tab selected. A yellow warning box highlights an inconsistency between the profile and its template. Below the box, there are fields for 'Affinity', 'Device bay', 'Server power' (set to 'On'), and 'Serial number (N/A)'. An 'Actions' button is visible in the top right corner.

## Multi-use Commands

When making some changes or issuing some commands, it is possible to send those commands to multiple entities at one time. In this example we will power multiple servers on at once.

### Issuing the Power On Command to Multiple Servers

- From the Top-Level Menu, select **Server Profiles**.

The screenshot shows the OneView navigation menu. The 'Server Profiles' link under the 'Dashboard' section is highlighted with a red arrow. Other menu items include 'Activity', 'Firmware Bundles', and 'Reports' under the 'Dashboard' section; and 'Hypervisor Cluster Profiles', 'Hypervisor Profiles', 'Hypervisor Managers', 'Networks', 'Network Sets', 'Logical Interconnect', 'Storage Pools', 'Groups', 'Logical Interconnects', 'Interconnects', 'Logical Switch Groups', 'Logical Switches', and 'Switches' under the 'HYPERVISORS' section.

- If the left-hand column, select the server profiles that you would like to manage. To select multiple items, hold down the *control* key while left clicking the desired server profiles.

The screenshot shows the 'Server Profiles' list with four items selected: 'ESX1', 'ESX2', 'ESX3', and 'ESX4'. A red box highlights the 'Actions' button in the top right corner. A message at the bottom of the list says 'Multiple items selected'.

- From the Actions menu, select **Power Off**

The screenshot shows the 'Server Profiles' section of the HPE OneView interface. On the left, there's a sidebar with a 'Create profile' button and a list of existing profiles: 'Name' (Deno SP), 'ESX1', 'ESX2', 'ESX3', 'ESX4', and 'HyperV1'. On the right, a main panel displays '4 Server Profiles'. A context menu is open over the 'HyperV1' profile, listing actions: 'Actions' (Create, Edit, Copy, Launch console), 'Power off', 'Reset', and 'Delete'. A red arrow points to the 'Power off' option.

4. Looking in the activity page, under Tasks, you can see that servers have now been powered off.

The screenshot shows the 'Activity' page in HPE OneView. The top navigation bar includes 'Activity', 'Custom', 'Tasks', and a search bar. Below the navigation, there are filters for 'All statuses', 'All states', 'All time', 'All owners', and 'Reset'. The main area lists tasks with columns for 'Name', 'Resource', 'Date', 'State', and 'Owner'. A red arrow points to the first task in the list, which is 'Power off' for resource 'End1.bay.11' on 6/16/16 at 8:10:57 am, completed by Administrator.

## Migrating a Server Profile

Migrating a Server Profile allows the software defined server to be moved to a different piece of physical hardware. HPE OneView provides profile mobility between different adapters, different hardware generations and different blade models. Server profiles can also be migrated across enclosure groups.

Server profiles using shared DAS local storage can be migrated within the enclosure containing the local storage drives, and the drives will follow the server profile on migration.

Server profiles using SAN storage can be migrated to any supported server with access to the SANs being used to access the volumes and the volume attach configuration will follow the server profile on migration.

1. From the Top-level menu, select **Server Profiles**.

The screenshot shows the top-level menu of HPE OneView. It includes sections for GENERAL (Dashboard, Activity, Firmware Bundles, Reports), SERVERS (Server Profiles, Server Profile Templates, Enclosure Groups, Logical Enclosures, Rack Managers, Server Hardware, Server Hardware Types), HYPERVISORS (Hypervisor Cluster Profiles, Hypervisor Profiles, Hypervisor Managers), NETWORKING (Networks, Network Sets, Logical Interconnect), STORAGE (Volumes, Volume Templates, Storage Pools, Storage Systems, SANs, SAN Managers), and FACILITIES (Data Centers, Racks, Power Delivery Devices, Unmanaged Devices). A red arrow points to the 'Server Profiles' link under the SERVERS section.

## 2. Select the server profile to be migrated

The screenshot shows the 'Server Profiles' section of the HPE OneView web interface. On the left, a list of profiles is shown, with 'HyperV1' highlighted. The main panel displays the 'Overview' of the selected profile. The 'General' tab shows details like Name (HyperV1), Description (Demo), and Server hardware template (End1.bay.3). The 'Firmware' tab shows the Service Pack for ProLiant version 2016.04.0 applied on June 16, 2016. The 'Actions' menu at the top right is visible.

## 3. From the Actions menu, select **Edit**

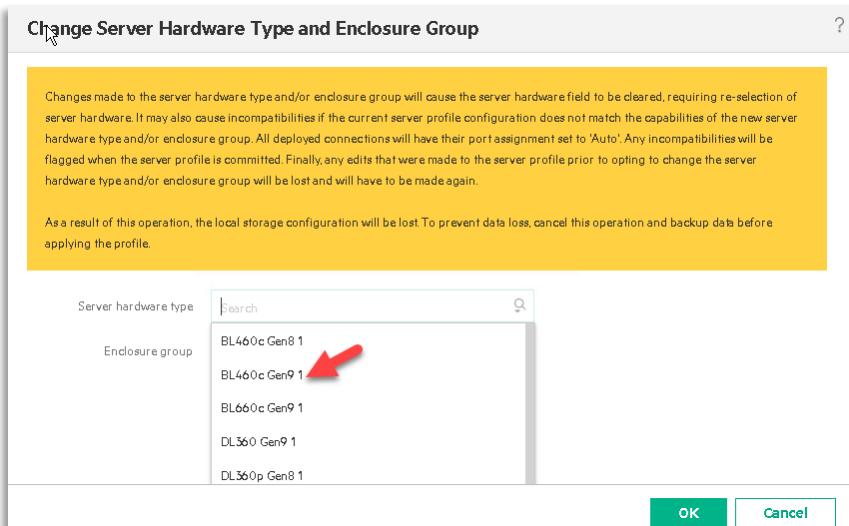
The screenshot shows the same 'Server Profiles' interface as above, but the 'Actions' menu is open, revealing options like 'Create', 'Edit', 'Copy', 'Launch console', 'Power off', 'Reset', and 'Delete'. A red arrow points to the 'Edit' option.

4. The profile can be changed by editing either the specific Server Hardware bay assignment, by changing the Server Hardware Type and then selecting the Server Hardware Bay Assignment or by changing the Enclosure Group. Click **Change** next to either **Server Hardware Type** or **Enclosure Group**

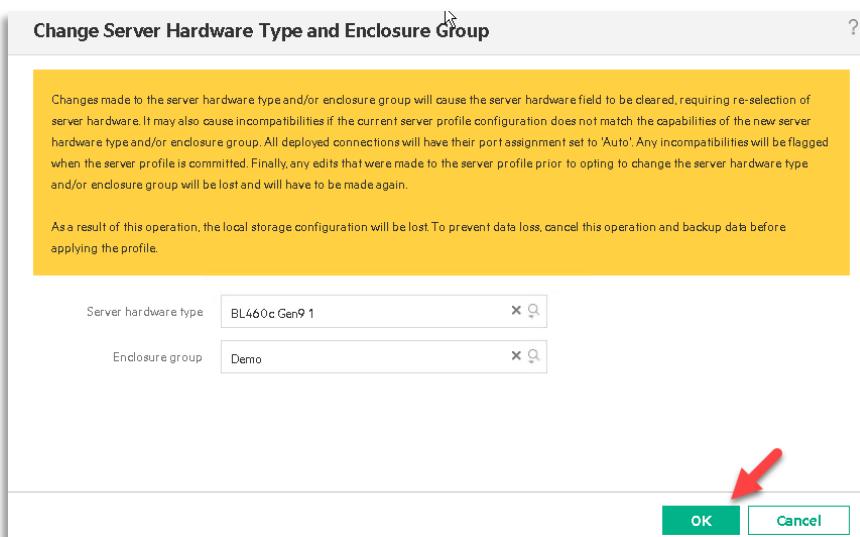
5. From the Change Server Hardware Type and Enclosure Group dialog box, select the drop-down for the type of profile mobility needed. For example, select the **Change** next to **Server Hardware Type**.

The screenshot shows the 'Edit' dialog for the 'HyperV1' profile. The 'General' tab is selected. The 'Server hardware type' field is set to 'BL460c Gen8 1' and contains a 'Change' link. Other fields include 'Name' (HyperV1), 'Description' (Demo), 'Server profile template' (none), 'Server hardware' (End1.bay.3), 'Enclosure group' (Demo), and 'Affinity' (Device bay). A note below the server hardware field states: 'Server hardware power is on. Some server profile updates require the server to be powered off. Power off the server. [Learn more](#)'.

## 6. From the dropdown list, select the desired **Server Hardware Type**



#### 7. Click **OK**



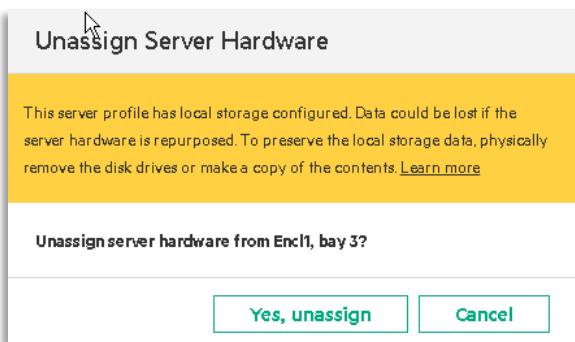
#### 8. Accept and agree to the warning.

Before changing the server hardware type or enclosure group, make sure you understand the implications of this change.

I have read and understand all the implications.

Change server hardware type and/or enclosure group?

#### 9. If the server profile is still assigned to hardware agree to unassign the hardware.



10. Using the **Server Hardware** drop-down list, select the device bay that the server profile will be moved to

**Edit HyperV1** General ?

**General**

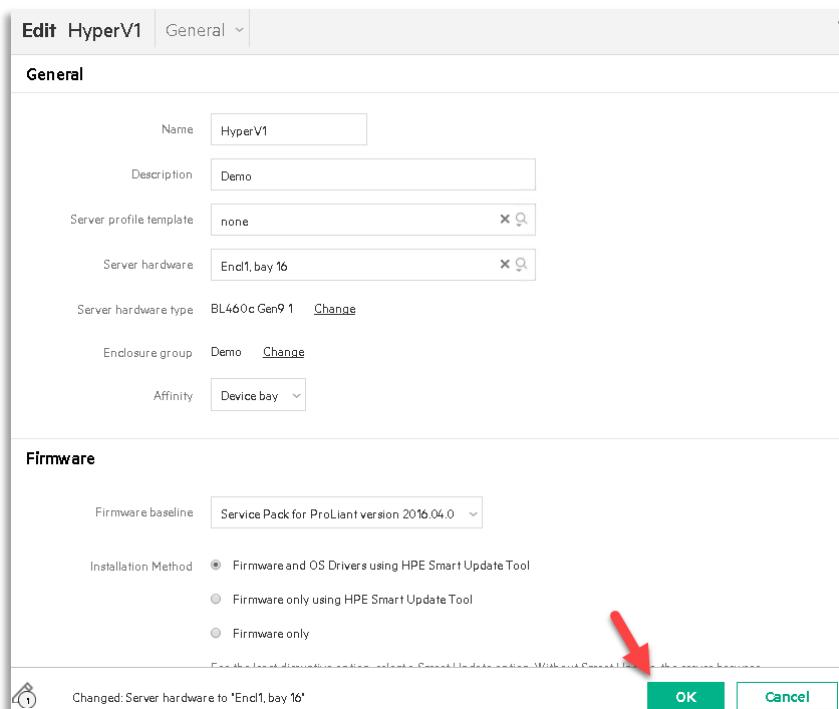
Name	HyperV1
Description	Demo
Server profile template	none
Server hardware	Search
Server hardware type	unassigned
Enclosure group	BL460c Gen9 1
Affinity	Device bay

**Firmware**

Firmware baseline	Service Pack for ProLiant version 2016.04.0
Installation Method	<input checked="" type="radio"/> Firmware and OS Drivers using HPE Smart Update Tool <input type="radio"/> Firmware only using HPE Smart Update Tool <input type="radio"/> Firmware only

Changed: Server hardware to " Encl1, bay 16" **OK** **Cancel**

11. Click **OK** to begin the profile migration



## Add New Networks to a Logical Interconnect Group

1. Create the new Ethernet network in HPE OneView. The new network is called **Add\_Demo**.

The screenshot shows the 'Networks' page in HPE OneView. A new network named 'Add\_Demo' is listed under the 'Create network' section. The 'Add\_Demo' network is selected, showing its details: Name (Add\_Demo), VLAN (157), Type (Ethernet). The status bar at the bottom says 'Changed: Server hardware to "Encl1, bay 16"'. At the bottom right, there is an 'OK' button with a red arrow pointing to it, and a 'Cancel' button.

2. From the top-level menu, select **Logical Interconnect Groups**

The screenshot shows the main menu of HPE OneView. The 'Logical Interconnect Groups' option is highlighted with a red arrow. Other options visible include Dashboard, Activity, Firmware Bundles, Reports, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES.

3. Select the Logical Interconnect Group to be edited from the left-hand menu

The screenshot shows the 'Logical Interconnect Group' page in HPE OneView. A logical interconnect group named 'Demo-LIG' is selected, showing its internal connections: Internal, SAN-A, Uplink-1, SAN-B, and Uplink1-B.

4. From the Actions menu of the Logical Interconnect Group, select **Edit**

Demo-LIG Logical Interconnect Group

Internal	no networks
SAN-A	1 network
Uplink-1	7 networks
SAN-B	1 network
Uplink 1 - B	7 networks

Actions: Create, Edit, Delete

5. Select the pencil icon to add the new Network(s) to an existing Uplink Set.

Logical Interconnect Group

Internal	no networks
SAN-A	1 network 2 uplink ports
Uplink-1	7 networks 2 uplink ports
SAN-B	1 network 2 uplink ports
Uplink 1 - B	7 networks 2 uplink ports

Add uplink set

6. Scroll down to the networks section, select **Add Networks**

Edit Uplink 1 - B

NETWORKS

Name	Type	VLAN ID	Native
Add_Demo	Ethernet	157	<input type="checkbox"/>
Blue-B	Ethernet	105	<input type="checkbox"/>
Green-B	Ethernet	110	<input type="checkbox"/>
Orange-B	Ethernet	125	<input type="checkbox"/>
Pink-B	Ethernet	130	<input type="checkbox"/>
Purple-B	Ethernet	115	<input type="checkbox"/>
Red-B	Ethernet	100	<input type="checkbox"/>
Yellow-B	Ethernet	120	<input type="checkbox"/>

Add networks Remove all

7. Select the Add\_Demo network and click **Add**

Add Networks to Uplink 1 - B

Name	Type	VLAN ID
Add_Demo	Ethernet	157
Facilities-A	Ethernet	145
Facilities-B	Ethernet	145
Finance-A	Ethernet	155
Finance-B	Ethernet	155
HR-A	Ethernet	150
HR-B	Ethernet	150
iLO-A	Ethernet	140
iLO-B	Ethernet	140
IT-A	Ethernet	160
IT-B	Ethernet	160
Sales-Dallas-A	Ethernet	170

Add Add + Cancel

8. Click **OK** to add the network to the Uplink Set

**Edit Uplink 1 - B**

Connection mode: Automatic (recommended) Failover

LACP timer: Short (1s)

**Networks**

Name	Type	VLAN ID	Native
Add_Demo	Ethernet	157	X
Blue-B	Ethernet	105	X
Green-B	Ethernet	110	X
Orange-B	Ethernet	125	X
Pink-B	Ethernet	130	X
Purple-B	Ethernet	115	X
Red-B	Ethernet	100	X
Yellow-B	Ethernet	120	X

**Uplink Ports**

**OK** **Cancel**

9. Click **OK** to update the Logical Interconnect Group

**Edit Demo-LIG** General

**General**

Name: Demo-LIG

**Logical Interconnect Group**

- Internal: no networks
- SAN-A: 1 network, 2 uplink ports
- Uplink-1: 7 networks, 2 uplink ports
- SAN-B: 1 network, 2 uplink ports
- Uplink 1 - B: 8 networks, 2 uplink ports

**Add uplink set**

1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4  
Q1 Q2 Q3 Q4

1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4  
Q1 Q2 Q3 Q4

**OK** **Cancel**

Warning: One or more logical interconnects are using this logical interconnect group.

10. Now that the *Logical Interconnect Group* has been updated, the *Logical Interconnects* that were created from importing the Enclosure will report they are no longer consistent with the group. From the top-level menu, select **Logical Interconnects**

**OneView**

GENERAL	SERVERS	NETWORKING	STORAGE	FACILITIES
Dashboard	Server Profiles	Networks	Volumes	Data Centers
Activity	<b>Server Profile Templates</b>	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures	Logical Interconnects	Storage Systems	Devices
	Enclosures	Interconnects	SANs	Unmanaged Devices
	Server Hardware	Logical Switch Groups	SAN Managers	
	Server Hardware Types	Logical Switches		
		Switches		

11. Select the Logical Interconnect that requires updating from the left-hand menu. Notice that the Logical Interconnect Group is shown as being inconsistent with the Logical Interconnect Group

The screenshot shows the 'Logical Interconnects' page in HPE OneView. A yellow warning banner at the top states: '▲ Enc1-Demo-LIG Logical Interconnect ▲ The logical interconnect is inconsistent with the logical interconnect group Demo-LIG. Active 7/21/16 4:27:37 pm'. Below the banner, there are two entries: 'End1-Demo-LIG' and 'End2-Demo-LIG', both labeled 'Logical Interconnect'. An 'Actions' dropdown menu is visible on the right.

12. Open the Actions menu, and then ***Update from group***. Repeat for any other *Logical Interconnects* that require updating.

This screenshot is identical to the previous one, but a red arrow points to the 'Update from group' option in the 'Actions' dropdown menu, indicating it should be selected.

13. From the top-level menu, select ***Network Sets***

The screenshot shows the OneView navigation menu. The 'Network Sets' option under the 'NETWORKING' category is highlighted with a red arrow. Other categories like General, Servers, Hypervisors, Networking, Storage, and Facilities are also listed.

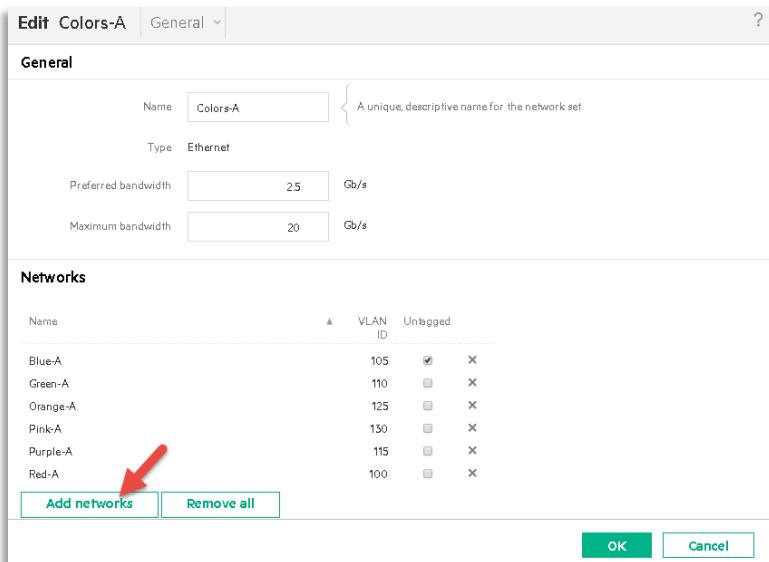
14. Select the desired Network Set from the left and menu

The screenshot shows the 'Network Sets' page. It lists two network sets: 'Colors-A' and 'Colors-B'. The 'Colors-A' entry is selected, showing its details in the main pane. An 'Actions' dropdown menu is visible on the right.

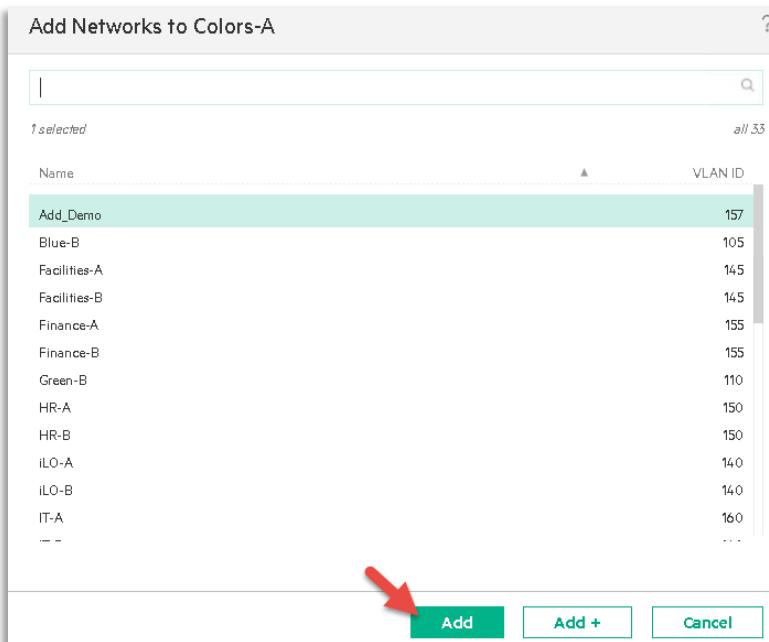
15. From the Actions menu of the Network Set, select ***Edit***

This screenshot is identical to the previous one, but a red arrow points to the 'Edit' option in the 'Actions' dropdown menu, indicating it should be selected.

16. In the Networks section, select ***Add Networks***



17. Select the Add\_Demo network and Click Add



18. Click **OK** to apply the changes to the Network Set

**General**

Name	Colors-A	A unique, descriptive name for the network set
Type	Ethernet	
Preferred bandwidth	2.5	Gb/s
Maximum bandwidth	20	Gb/s

**Networks**

Name	VLAN ID	Untagged
Add_Demo	157	<input type="checkbox"/>
Blue-A	105	<input checked="" type="checkbox"/>
Green-A	110	<input type="checkbox"/>
Orange-A	125	<input type="checkbox"/>
Pink-A	130	<input type="checkbox"/>
Purple-A	115	<input type="checkbox"/>
Red-A	100	<input type="checkbox"/>

**OK**   **Cancel**

### Information

Adding a *Network* to a *Network Set* does not require a Server to be powered off and will deploy the updated *Network Set* configuration automatically.

## Create a Server Profile Template from existing server profile

- From the Top-Level Menu, select **Server Profiles**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the left hand menu select the server profile that you want to make the template from

The screenshot shows the HPE OneView interface with the 'Server Profiles' page selected. The left sidebar lists server profiles: ESx0-01 through ESx0-12, Splunk-1 through Splunk-4, and a 'Server Profile' entry. A red arrow points to the 'Server Profile' link. The main panel displays the 'Overview' tab for the selected 'Server Profile'. It includes sections for General (with fields like Name, Description, Server profile template, Server hardware, Enclosure group, Affinity, Server power, Serial number (v), UUID (v), and iSCSI initiator name (v)), Firmware (with Service Pack for ProLiant version 2030.04.0, Firmware install state 'Applied, 3:07pm July 11, 2017', and Installation Method 'Firmware and OS Drivers using Smart Update Tools'), SAN Storage (managed manually), Local Storage (not configured), and BIOS (75 items modified). A 'Connection status' section shows 2 OK connections.

### 3. Open the **Actions** menu

This screenshot is identical to the previous one, showing the 'Server Profiles' page. However, a red arrow points to the 'Actions' button located in the top right corner of the main panel area.

### 4. Select **Create template from Profile**

This screenshot shows the 'Server Profiles' page with the 'Actions' menu open. The 'Create template from profile' option is highlighted with a red arrow. Other options in the menu include Create, Edit, Copy, Refresh, Launch console, Power off, Reset, and Delete.

### 5. Enter a **name** for the Server Profile Template

The screenshot shows the 'Create Template from Profile' dialog box. The 'Name' field is highlighted with a red box and contains the text 'SP2SPT'.

6. Enter a **description** for the Server Profile Template

Create Template from Profile Server Profile

Name: SP2SPT

Description: Demo of SP2SPT

7. Click **Create**

Create Template from Profile Server Profile

Name: SP2SPT

Description: Demo of SP2SPT

Changed: Description to "Demo of SP2SPT..."

**Create**   **Create +**   **Cancel**

## Edit Server Profile

Once a profile has been applied, you can edit the profile to make changes, and fix issues that may have been encountered. It is possible to edit the existing Network Connections by modifying existing assigned Network and/or Bandwidth without needing to first Power Off the server. Other Server Profile edits will require the Server Profile to be Powered Off.

1. From the Top-Level Menu, select **Server Profiles**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	<b>Server Profiles</b>	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Groups	Groups	Unmanaged Devices
	Enclosures		Logical Interconnects	Logical Interconnects	
	Rack Managers		Interconnects	Interconnects	
	Server Hardware		Logical Switch Groups	Logical Switch Groups	
	Server Hardware Types		Logical Switches	Logical Switches	
			Switches	Switches	

2. Select the server to be edited from the left-hand menu and verify that the Server is powered off.

The screenshot shows the HPE OneView interface with the 'Server Profiles' tab selected. On the left, a list of profiles includes 'Demo SP', 'ESX1' (selected), 'ESX2', 'ESX3', 'ESX4', and 'HyperV1'. The main area displays the 'Overview' of the selected 'ESX1' profile. The 'General' section shows fields like 'Description' (Demo), 'Server profile template' (Demo), 'Server hardware' (Enc11\_bay\_13), 'Server hardware type' (BL460c Gen9), 'Enclosure group' (Demo), 'Affinity' (Device bay), and 'Server power' (Off). A red arrow points to the 'Device bay' field. The 'Firmware' section shows details like 'Firmware baseline' (Service Pack for ProLiant version 2016.04.0), 'Firmware install state' (Applied, 7:51am June 16, 2016), and 'Installation Method' (Firmware and OS Drivers using HPE Smart Update Tool). Below these are sections for 'Connections' (4 connections, 4 OK), 'SAN Storage' (managed manually), 'Local Storage 1' (1 OK), and 'BIOS 120' (6 Modified).

3. Select the Actions menu, then select **Edit**.

This screenshot is similar to the previous one, showing the 'Server Profiles' page with 'ESX1' selected. The Actions menu is open, and a red arrow points to the 'Edit' option, which is highlighted.

4. Make the necessary changes to the server profile (i.e. Bandwidth adjustment, add a Network Connection, etc.)

The screenshot shows the 'Edit Connection' dialog box. The 'General' tab is selected. The 'Name' field is set to 'Blue-B'. The 'Function type' is 'Ethernet'. The 'Network' is 'Blue-B' and the 'Port' is 'FlexibleLOM 1:2-a'. The 'Requested bandwidth (Gb/s)' is '2.5'. The 'Boot' option is 'Not bootable'. At the bottom are 'OK' and 'Cancel' buttons, and a link to 'Add Connection'.

5. Click the **OK** button to save the changes to the Server Profile.

The screenshot shows the 'Edit ESX1 | Firmware' interface. Under the 'Connections' section, there is a table listing four network interfaces:

ID	Name	Network	Port	Boot
1	Blue-A	Blue-A vlan105	FlexibleLOM 1:1-a	Not bootable
2	Blue-B	Blue-B vlan105	FlexibleLOM 1:2-a	Not bootable
3	SAN-A	SAN_A Direct attach	FlexibleLOM 1:1-b	Not bootable
4	SAN-B	SAN_B Direct attach	FlexibleLOM 1:2-b	Not bootable

Below the table is a green 'Add Connection' button. A red arrow points from the bottom of the table area to the 'OK' button on a modal dialog titled 'Edit Connection: Blue-B'. The dialog also contains 'Cancel' and 'Edit Connection' buttons.

6. Notice the server does not have its firmware reapplied, and only those changes are applied.

## Assign a Server Profile to a newly discovered server

1. From the Top-Level menu, select **Server Hardware**.

The screenshot shows the HPE OneView top-level navigation menu. The 'Dashboard' section is expanded, showing links for Server Profiles, Hypervisor Cluster Profiles, Networks, Volumes, Data Centers, and Settings. A red arrow points to the 'Server Hardware' link under the 'Dashboard' section.

2. Select the **server** from the left-hand menu

The screenshot shows the 'Server Hardware' list page. At the top left, there is a red arrow pointing to the 'Add server hardware' button. The main list shows one item: '172.18.31.3' with 'not set' for Name, Server Name, and Server Profile, and 'DL360 Gen10' for Model. The right panel shows the 'Overview' for this server, with a red arrow pointing to the 'Create Profile' button. Other tabs in the overview include 'Hardware' and 'Utilization'.

3. From the Overview section, select **Create Profile**

The screenshot shows the HPE OneView interface with the search bar set to 'Server Hardware'. A single result for '172.18.31.3' is displayed. In the 'Actions' dropdown, a red arrow points to the 'Create profile' option.

4. Enter a **name** for the server profile

The screenshot shows the 'Create Server Profile' dialog with the 'General' tab selected. The 'Name' field contains 'ESX-01', which is highlighted with a red box.

5. (Option - A) Select a **Server Profile Template** from the dropdown list

The screenshot shows the 'Create Server Profile' dialog with the 'General' tab selected. The 'Server hardware' dropdown is open, showing a list with 'None' at the top and 'DL360 Gen10 with ESX' highlighted with a red arrow.

6. (Option – B) Create an individual server profile – follow the process located [here](#)

7. Click **Create**

Create Server Profile General ?

**General**

Name: ESX-01

Server profile template: DL360 Gen10 with ESX

Description: DL360 Gen10 with ESX

Server hardware: 172.18.31.3

Show empty bays:

Server hardware type: DL360 Gen10 1

Enclosure group: not supported for this server hardware type

Affinity: not supported for this server hardware type

**Firmware**

Firmware baseline: managed manually

The appliance firmware repository is empty or no bundles are available in the users scope(s). To set a firmware baseline, visit the [Firmware Bundles](#) page. This page can be used to download firmware bundles from HPE and to upload them into the appliance repository.

**Connections**

not supported for this server hardware type

**Local Storage**

Integrated storage controller: [Managed manually](#)

**Actions**

**Create** **Create +** **Cancel**

## Create ESX Cluster Profile

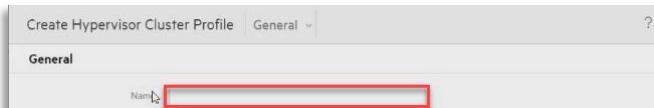
- From the Top-Level Menu, select **Hypervisor Cluster Profiles**.

GENERAL	SERVERS	HYPERVERSORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	<b>Networks</b>	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups		
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

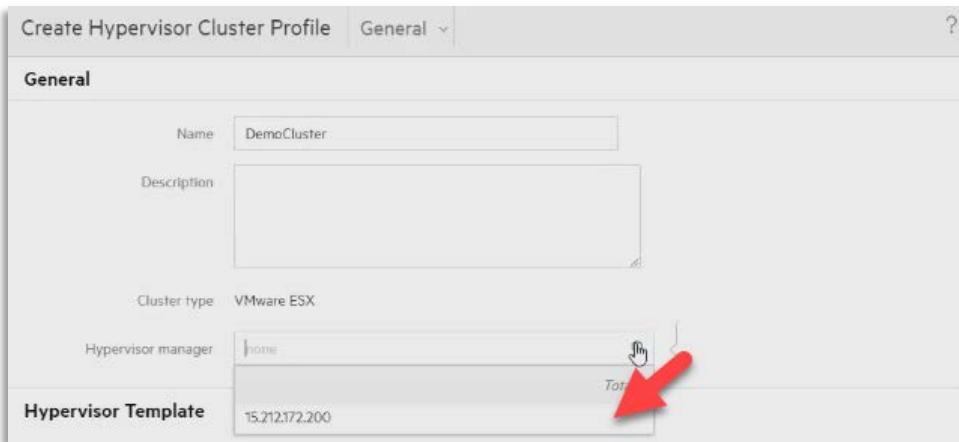
- From the left hand menu select the **Create Hypervisor Cluster Profile**

Hypervisor Cluster Profiles 2		All status   All types   All resources	Actions
<b>+ Create hypervisor cluster profile</b>			
<b>+ Import hypervisor cluster profile</b>			
ab	VMware ESX	State: Active Cluster type: VMware ESX Hypervisor manager: 15.212.172.200 Location in hypervisor manager: VSA_DONT_TAMPER Cluster members: not set	
Bay?	VMware ESX		

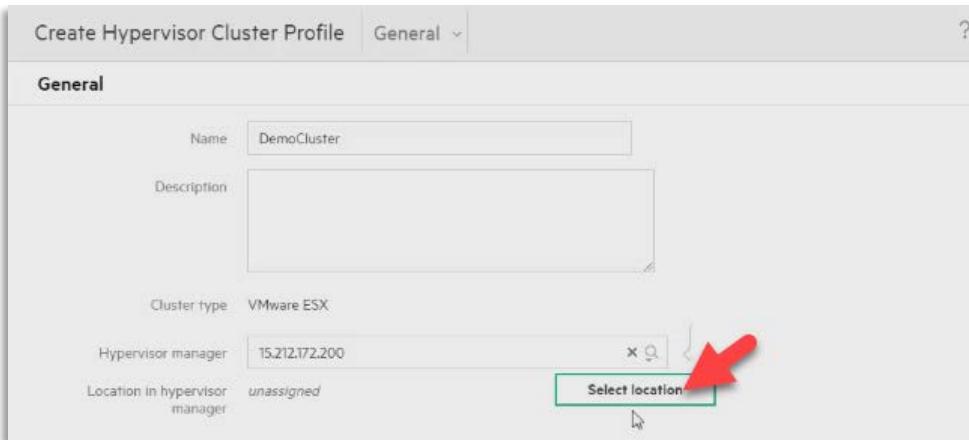
- Enter a name for the Hypervisor cluster profile



**4. Select the Hypervisor manager for the cluster profile**



**5. Click **Select Location****



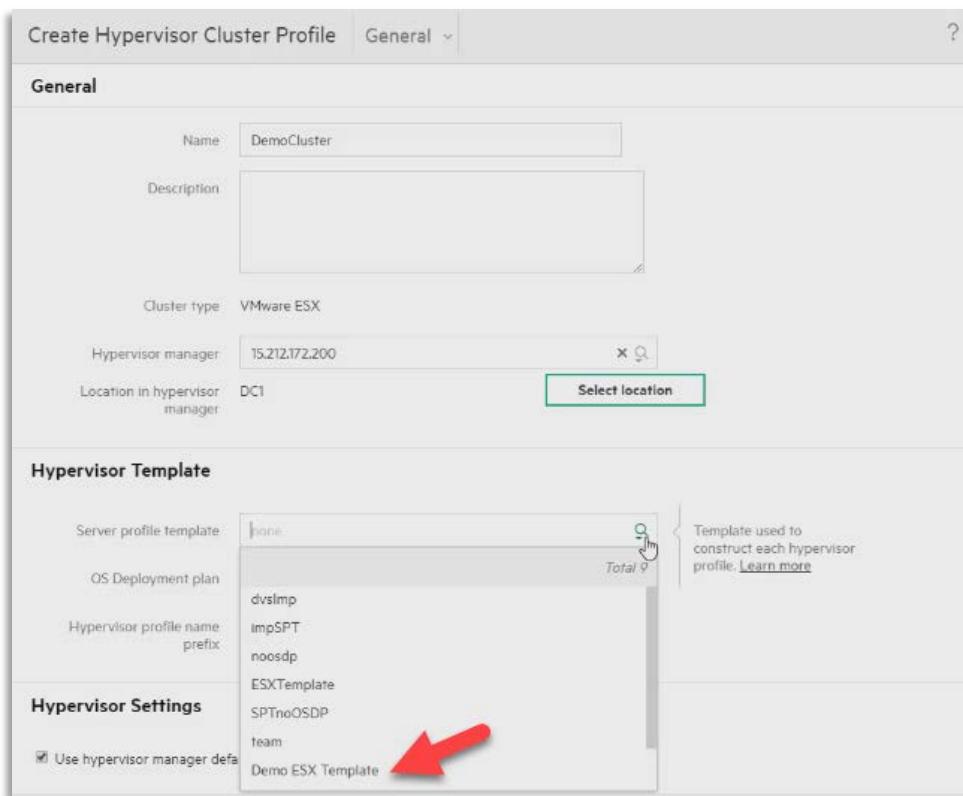
**6. In the dialog box, select the location to be used**



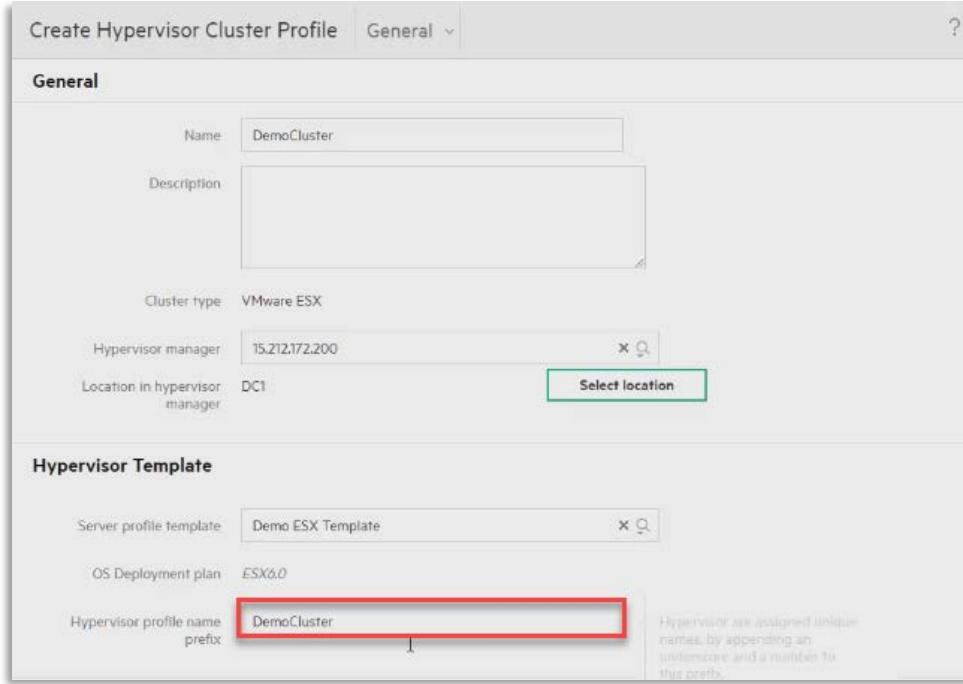
**7. Click **OK****



**8. Using the drop-down menu, select the **server profile template****



9. Create the prefix that will be used for the Hypervisor profile name



10. (If using Image Streamer otherwise skip) Enter and confirm the Hypervisor Password associated with the Hypervisor Cluster

**Hypervisor Template**

OS Deployment plan: ESX6.0

Hypervisor profile name prefix: DemoCluster-

**OS Deployment Settings**

These settings match the expected parameters for the selected OS deployment plan and are used for all hypervisors. The password defined here is assigned to each hypervisor. Note: If the OS deployment plan defines a default password, enter that password here otherwise the hypervisors will not be added to the cluster. [Learn more...](#)

Hypervisor password: [REDACTED]

Confirm password: [REDACTED]

If the selected deployment plan defines a default password, enter the same password here. If the default password is not defined, enter a password which will be assigned to each hypervisor.

Deployment settings: No deployment settings

#### 11. (If using Image Streamer otherwise skip) Verify and configure the Hypervisor Networking

**Hypervisor Settings**

Use hypervisor manager default settings

**Hypervisor Networking**

Management network: mgmt

Management address assignment:  Automatic  User specified

IPv4 configuration: The subnet ranges on the management network are used to assign an address for each hypervisor.

vSwitch Configuration

Manage vSwitches manually

Special purpose addressing

Network	Purpose	IPv4 addresses assigned from
vMotion	VM Migration	<input checked="" type="radio"/> Automatic <input type="radio"/> DHCP

vSwitches

Configure port groups

[Expand all](#) [Collapse all](#)

vSwitch Name	Port Groups	Port	Network	Allocated Bandwidth (Gb/s)
mgmt	1	Mezz 3:1-c	mgmt	2.5
Prod	5	Mezz 3:1-d	Prod network set	2.5

#### 12. In the storage section, use the drop-down list to select the File System to be used

**Hypervisor Networking**

Purpose	General
VLAN	303
Network	Prod303

**VMkernel Port**

Port group name	vMotion
Purpose	VM Migration
VLAN	200
Network	vMotion

**Storage**

Volume	Size	Provisioning	Defined by	File System
Cluster Shared Storage pending attach	10.00 GiB	Thin	Server profile template	Unmanaged

**Add cluster volume**

13. In the Hypervisors section, click **Add Hypervisors**

**Hypervisor Networking**

Purpose	General
VLAN	303
Network	Prod303

**VMkernel Port**

Port group name	vMotion
Purpose	VM Migration
VLAN	200
Network	vMotion

**Storage**

Volume	Size	Provisioning	Defined by	File System
Cluster Shared Storage pending attach	10.00 GiB	Thin	Server profile template	Unmanaged

**Add cluster volume**

**Hypervisors**

Leave hypervisors in maintenance mode after deployment. [Learn more...](#)

Hypervisors No hypervisors

**Add Hypervisors**

*There is no available server hardware matching the specified server hardware type and enclosure group.*

14. In the Add Hypervisors dialog box, select the hardware to be used (multi-select is supported)

**Add Hypervisors**

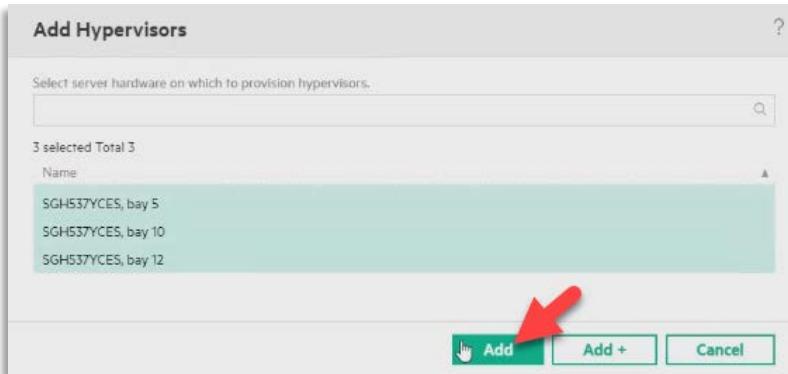
Select server hardware on which to provision hypervisors.

1 selected Total 3

Name

- SGH537YCES, bay 5
- SGH537YCES, bay 10
- SGH537YCES, bay 12a

15. Click **Add** to close the Add Hypervisors dialog box



16. Click **Create** to begin the Cluster Profile Creation Process

## Perform rolling cluster update on ESX cluster

1. From the Top-Level Menu, select **Server Profile Templates**

The screenshot shows the HPE OneView interface with the left-hand navigation menu expanded. The 'Servers' category is selected, and the 'Server Profile Templates' option is highlighted with a red arrow. Other options in the 'Servers' category include 'Server Profiles', 'Hypervisor Cluster Profiles', 'Hypervisor Profiles', 'Enclosure Groups', 'Logical Enclosures', 'Enclosures', 'Rack Managers', 'Server Hardware', 'Server Hardware Types', 'Hypervisor Managers', 'Logical Interconnects', 'Interconnects', 'Logical Switches', and 'Switches'.

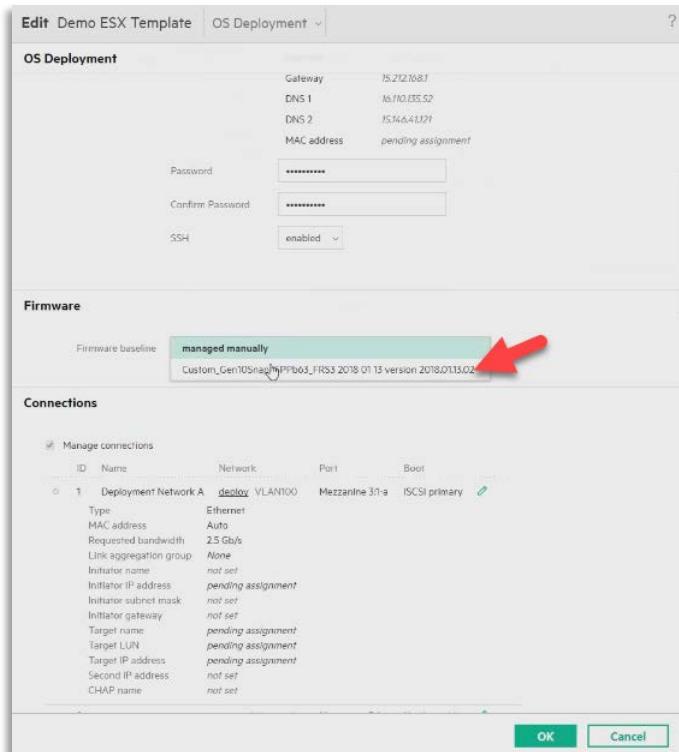
2. From the left-hand menu, select the **desired server profile template**

The screenshot shows the 'Demo ESX Template' details page. The 'Actions' dropdown menu is open, and the 'Edit' option is highlighted with a red arrow. The page displays general information about the server profile template, including its name ('Demo ESX Template'), hardware type ('SY 480 Gen9.2'), and various configuration settings like SAN volume attachments, logical drives, and firmware baseline.

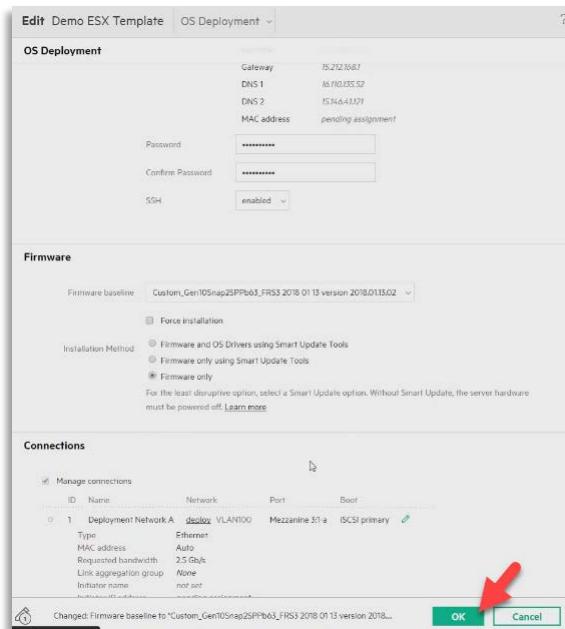
3. From the actions menu, select **Edit**

The screenshot shows the 'Demo ESX Template' details page after selecting 'Edit'. The 'Actions' dropdown menu is open, and the 'Edit' option is highlighted with a red arrow. The page displays general information about the server profile template, including its name ('Demo ESX Template'), hardware type ('SY 480 Gen9.2'), and various configuration settings like SAN volume attachments, logical drives, and firmware baseline.

4. In the Firmware section of the server profile template, use the dropdown list to select the new firmware



5. Click **OK** to close the server profile template.



6. From the Top-Level Menu, select **Hypervisor Cluster Profiles**.

GENERAL SERVERS HYPERVISORS NETWORKING STORAGE FACILITIES

**Dashboard** Server Profiles Hypervisor Cluster Profiles Networks Volumes Data Centers

Activity Server Profile Templates Hypervisor Profiles Network Sets Logical Interconnect Storage Pools Power Delivery

Firmware Bundles Enclosure Groups Hypervisor Managers Hypervisor Managers Groups Logical Interconnects Storage Systems Devices

Reports Logical Enclosures Interconnects SANs Unmanaged Devices

Rack Managers Logical Switch Groups

Server Hardware Logical Switches SAN Managers

Server Hardware Types Switches

7. From the left hand menu, select the **desired cluster profile**

Hypervisor Cluster Profiles 3 All statuses ▾ All types ▾ All resources ▾

+ Create hypervisor cluster profile + Import hypervisor cluster profile

Name	Type
ab	VMware ESX
Bay1	VMware ESX
<b>DemoCluster</b>	VMware ESX

**DemoCluster** General ▾

General

State: Active Cluster type: VMware ESX Hypervisor manager: 15.21.172.200 Location in hypervisor manager: DC1 Cluster members: 3 Hypervisor profiles (3 inconsistent)

Hypervisor Template

Server profile template: Demo ESX Template Consistency state: Consistent with server profile template OS Deployment plan: esx6Scope Hypervisor profile name prefix: DemoCluster

OS Deployment Settings

No deployment settings defined

Hypervisor Settings

Settings defined by: 15.21.172.200 vSwitch type: Standard Multi-NIC vMotion: Disabled Distributed resource scheduler: Enabled High availability: Enabled

Hypervisor Networking

Management Address Management network: mgmt

8. Click the **warning statement** to expand it.

Hypervisor Cluster Profiles 3 All statuses ▾ All types ▾ All resources ▾

+ Create hypervisor cluster profile + Import hypervisor cluster profile

Name	Type
ab	VMware ESX
Bay1	VMware ESX
<b>DemoCluster</b>	VMware ESX

**DemoCluster** General ▾

▲ 3 Hypervisor profiles are inconsistent with DemoCluster. Active

General

State: Active Cluster type: VMware ESX Hypervisor manager: 15.21.172.200 Location in hypervisor manager: DC1 Cluster members: 3 Hypervisor profiles (3 inconsistent)

Hypervisor Template

Server profile template: Demo ESX Template Consistency state: Consistent with server profile template OS Deployment plan: esx6Scope Hypervisor profile name prefix: DemoCluster

OS Deployment Settings

No deployment settings defined

Hypervisor Settings

Settings defined by: 15.21.172.200 vSwitch type: Standard Multi-NIC vMotion: Disabled Distributed resource scheduler: Enabled High availability: Enabled

Hypervisor Networking

9. Click **Make hypervisor profiles consistent**

The screenshot shows the 'Hypervisor Cluster Profiles' section of the OneView interface. On the left, there's a sidebar with options like 'Create hypervisor cluster profile' and 'Import hypervisor cluster profile'. The main area displays a table of hypervisor profiles. A specific row for 'DemoCluster' is highlighted. A prominent yellow warning box appears over the table, containing the text: '3 Hypervisor profiles are inconsistent with DemoCluster. Make hypervisor profiles consistent!'. Below this, there's a 'Details' section with various configuration details, followed by sections for 'Hypervisor Template', 'OS Deployment Settings', and 'Hypervisor Settings'. At the bottom right of the main area, there's a 'Actions' dropdown.

10. In the Make hypervisor profiles consistent dialog box, select **Yes, Update**.



## Configuring Boot from third party LUNs in a Server Profile

Configuring a server to boot from an unmanaged third-party SAN storage LUN can be performed by editing the server's SAN connection in the profile and configure it with the third-party LUN's WWN and LUN. Server profile network connection edits will require the server to be Powered Off. It is the administrator's responsibility to configure the third-party storage device to present the LUN to the server's connection WWPN on the SAN.

1. From the Top-Level Menu, select **Server Profiles**.

This is a screenshot of the OneView top-level menu. The menu is organized into several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under the SERVERS category, there are links for 'Dashboard', 'Activity', 'Firmware Bundles', and 'Reports'. Under 'Server Profiles', there are links for 'Server Profile Templates', 'Enclosure Groups', 'Logical Enclosures', 'Rack Managers', 'Server Hardware', and 'Server Hardware Types'. Under the HYPERVISORS category, there are links for 'Hypervisor Cluster Profiles', 'Hypervisor Profiles', and 'Hypervisor Managers'. Other categories include 'Networks', 'Network Sets', 'Logical Interconnect', 'Groups', 'Logical Interconnects', 'Interconnects', 'Logical Switch Groups', 'Logical Switches', 'Storage Pools', 'Volume Templates', 'Logical Switches', 'SANs', 'SAN Managers', 'Data Centers', 'Racks', 'Power Delivery Devices', and 'Unmanaged Devices'. A red arrow points to the 'Server Profiles' link under the SERVERS category.

2. Select the server profile to configure and invoke the Edit action on the server profile. Within the profile editor, edit the connections to configure to boot from a third-party LUN.

**Edit myServer** | **Connections** | ?

### Connections

ID	Name	Network	Port	Boot	
1	BroSAN A	Fabric attach	Mezzanine 1:1-b	Not bootable	
Type: Fibre Channel WWNN: 10:00:ee:ad:61:e0:00:01 (v) WWPN: 10:00:ee:ad:61:e0:00:00 (v) MAC address: 0E:A8:1F:40:00:00 (v) Requested bandwidth: 2.5 Gb/s					
2	BroSAN B	Fabric attach	Mezzanine 1:2-b	Not bootable	
Type: Fibre Channel WWNN: 10:00:ee:ad:61:e0:00:03 (v) WWPN: 10:00:ee:ad:61:e0:00:02 (v) MAC address: 0E:A8:1F:40:00:01 (v) Requested bandwidth: 2.5 Gb/s					

**Add connection**

3. Configure the connection to be a boot connection (primary or secondary) and select the “Specify boot target” option to supply the SAN identity of the third-party LUN – as a WWN and LUN number. Click OK twice to save the connection and profile configuration.

**Edit Connection** | ?

### General

Name:	<input type="text"/>
Function type:	<input type="button" value="Fibre Channel"/>
Network:	BroSAN A
Port:	Mezzanine 1:1-b
Requested bandwidth (Gb/s):	<input type="text" value="2.5"/>
Boot:	<input type="button" value="FC primary"/>
Boot from:	<input type="radio"/> Managed volume <input checked="" type="radio"/> Specify boot target <input type="radio"/> Use Adapter BIOS
WWPN:	<input type="text" value="37:10:00:0A:00:DE:34:00"/>
LUN:	<input type="text" value="0"/>

**OK** **Cancel**

## Changing the IP address of a managed resource (enclosure)

Occasionally situation arises where the IP address of a managed resource will need to be changed. In this example we will look at changing the IP address of an enclosure managed by HPE OneView.

1. Open the Onboard Administrator of the enclosure in question and change the IP address on the OA. Apply this change in the OA.
2. In the HPE OneView console, select the main menu option in the upper left, and choose **Enclosures**.

The screenshot shows the HPE OneView web interface. The left sidebar has sections for GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under SERVERS, there are sub-options like Server Profiles, Hypervisor Cluster Profiles, etc. Under REPORTS, there are Enclosure Groups, Logical Enclosures, and Enclosures. The 'Enclosures' option is highlighted with a red arrow.

3. From the left-hand menu select the enclosure that has had the IP address changed. The status of the enclosure will be red

The screenshot shows the 'Enclosures' details page for 'Enc1'. The 'General' tab is selected. It shows the state as 'Configured', model as 'BladeSystem c7000 Enclosure G3', and logical enclosure as 'Enc1'. The status is shown as green. A red arrow points to the 'Actions' button in the top right corner.

4. From the Enclosure's action menu, select **Refresh**

The screenshot shows the 'Enclosures' details page for 'Enc1'. The 'General' tab is selected. The status is now red. A red arrow points to the 'Refresh' option in the expanded 'Actions' menu on the right side.

5. When the refresh process begins, it will detect that it can't communicate with the Onboard Administrator and will prompt the user for the new IP address

The screenshot shows the 'Enclosures' details page for 'Enc1'. The 'General' tab is selected. A progress bar at the bottom indicates 'Refreshing' and 'Update enclosure information'. The status is red. The 'Actions' button is visible in the top right.

6. After the refresh the enclosure should be a green status.

The screenshot shows the 'Enclosures' page in HPE OneView. On the left, there's a sidebar with a tree view: 'Add enclosure' (highlighted in green), 'Name' (with 'Enc1' selected), and 'Enc2'. The main panel shows 'Enc1' details: State (Configured), Model (BladeSystem c7000 Enclosure G3), Logical enclosure (Enc1), Server licensing policy (HPE OneView Advanced). It also displays utilization metrics (Power: 0.4 kW of 12 kW, Temperature: 72 °F) and hardware information (OA: Primary/Standby, Location: Rack-221, Powered by: 6 connections, Serial number: SGH100X6J1). On the right, there are two views: 'Front View' and 'Rear View', each showing a grid of components.

## Adding a New Enclosure

- From the Top-Level Menu, select **Enclosures**.

The screenshot shows the HPE OneView navigation menu. Under the 'GENERAL' section, the 'Dashboard' is selected. In the 'Enclosures' category, 'Logical Enclosures' and 'Enclosures' are listed. A red arrow points to the 'Enclosures' link.

- Click the **Add Enclosure** button.

The screenshot shows the 'Add Enclosure' page. At the top, there's a search bar and a user icon. Below it, the 'Enclosures' list shows '0' items and a '+ Add enclosure' button (highlighted with a red arrow). The list itself is empty, showing 'No enclosures'.

- Enter the **IP address** or the **Hostname** of the enclosure to be imported.

The screenshot shows the 'Add Enclosure' configuration page. It has tabs for 'Add Enclosure' (selected) and 'OA Credentials' (highlighted in green). The 'OA Credentials' tab has a sub-section 'OA IP address or host name' with a text input field containing '172.18.1.11'.

- Select the Add enclosure for Management option

Add Enclosure OA Credentials ?

**OA Credentials**

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

5. Enter the **credentials** for the Onboard Administrator.

Add Enclosure OA Credentials ?

**OA Credentials**

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

**Credentials**

User name: dcs

Password: \*\*\*

6. Select the **Enclosure Group** from the drop-down list.

Add Enclosure OA Credentials ?

**OA Credentials**

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

**Credentials**

User name: dcs

Password: \*\*\*

**General**

Enclosure group: Demo

7. Select the desired license policy (Note: if the wrong license is selected the enclosure will need to be deleted from HPE OneView and re-added. This is not something that can be changed after being imported.)

**Add Enclosure** OA Credentials ?

### OA Credentials

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

### Credentials

User name: dcs

Password: \*\*\*

### General

Enclosure group: Demo

Licensing:

- HPE OneView Advanced
- HPE OneView Advanced w/o iLO [Learn more](#)

8. Specify the **Firmware Baseline** from the drop-down list.

**Add Enclosure** OA Credentials ?

### OA Credentials

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

### Credentials

User name: dcs

Password: \*\*\*

### General

Enclosure group: Demo

Licensing:

- HPE OneView Advanced
- HPE OneView Advanced w/o iLO [Learn more](#)

### Firmware

Firmware baseline:

[Manage manually](#) Service Pack for ProLiant, 2016.04.0

9. Selecting the **Add** or **Add+** button, the enclosure will be discovered, and the OA firmware will be updated to the version within the SPP.

Add Enclosure | OA Credentials | ?

### OA Credentials

OA IP address or host name: 172.18.1.11

Action:

- Add enclosure for management
- Add enclosure for monitoring
- Add enclosure and migrate Virtual Connect domain

### Credentials

User name: dcs

Password: \*\*\*

### General

Enclosure group: Demo

Licensing:  HPE OneView Advanced    HPE OneView Advanced w/o iLO   [Learn more](#)

### Firmware

Firmware baseline: Service Pack for ProLiant, 2016.04.0

Force installation

Changed: Firmware baseline to "Service Pack for ProLiant, 2016.04.0"

**Add** **Add +** **Cancel**

10. Once the enclosure information has been verified, the appliance will begin its discovery process.

Clicking on the Details link will take you to the Activity view of the enclosure, where you can examine the task and subtask details.

OneView | Search

Enclosures | Overview | Actions

Name: Encl1

Add | Claim enclosure

Administrator 4/21/16 2:33:14 pm

Retrieves enclosure information  
Claims enclosure

Details

Server licensing policy: HPE OneView Advanced

Utilization >

Power	no data
Temperature	no data

Hardware >

OA	Primary-Standby
Location	none
Powered by	none
Serial number	SGH100X6J1

Rear View   Interconnects   Eaos

11. During this time, the appliance will validate if the OA firmware meets the minimum requirement. If the firmware is out of date, the Activity window will display the sub-tasks generated. Below is a sample screenshot.

The screenshot shows the 'Enclosures' section of the HPE OneView interface. A task card for 'Add' is displayed, indicating 'Validation complete.' The status is 'OK'. Below the card, there are several links: 'Remove enclosure information', 'Claim enclosure', 'Configure enclosure', 'Validation complete', and 'Update OA firmware'. A red arrow points to the 'Update OA firmware' link.

12. After the Add Enclosure task has completed, the Enclosure State should read **Configured**.

The screenshot shows the 'Overview' page for the enclosure 'Encl1'. The 'General' section displays the state as 'Configured' (highlighted with a red arrow), model 'BladeSystem c7000 Enclosure G3', logical enclosure 'Encl1', and server licensing policy 'HPE OneView Advanced'. To the right, there are 'Front View' and 'Rear View' diagrams showing the physical layout of the enclosure.

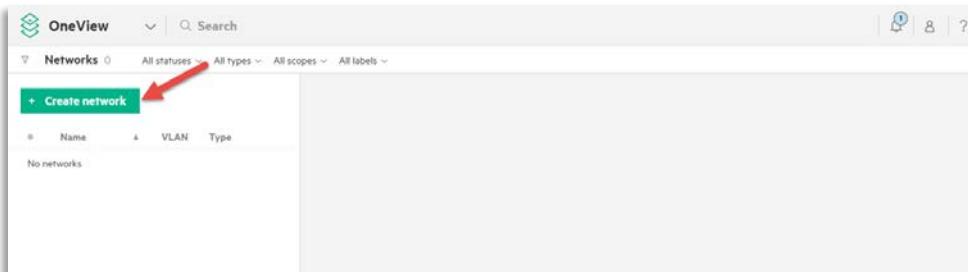
## Adding an Ethernet Network

1. From the Top-Level menu, select **Networks**.

The screenshot shows the top-level navigation menu of HPE OneView. The 'NETWORKING' tab is highlighted with a red arrow, and the 'Networks' option under it is also highlighted.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster	<b>Networks</b>	Volumes	Data Centers
Activity	Server Profile Templates	Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Profiles	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures	Hypervisor Managers	Groups	Storage Systems	Devices
	Enclosures		Logical Interconnects	SANs	Unmanaged Devices
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

2. Once on the Networks screen, click the **+Create Network** button on the far left.



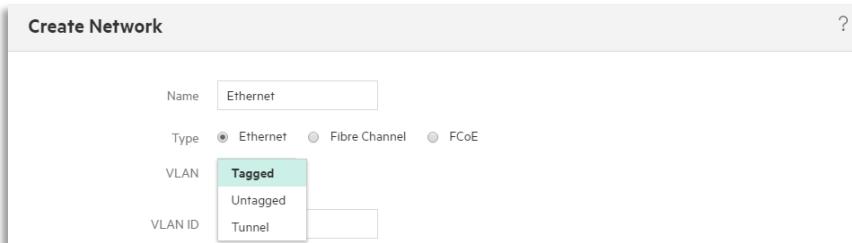
3. In the Create Network Dialog box enter the name of the network. The *Name* is not case-sensitive. The name can contain spaces and special characters.



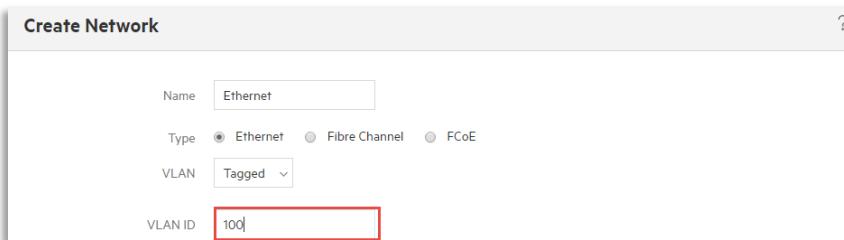
4. Select *Ethernet* as the *Type*



5. Select the VLAN type from the dropdown box

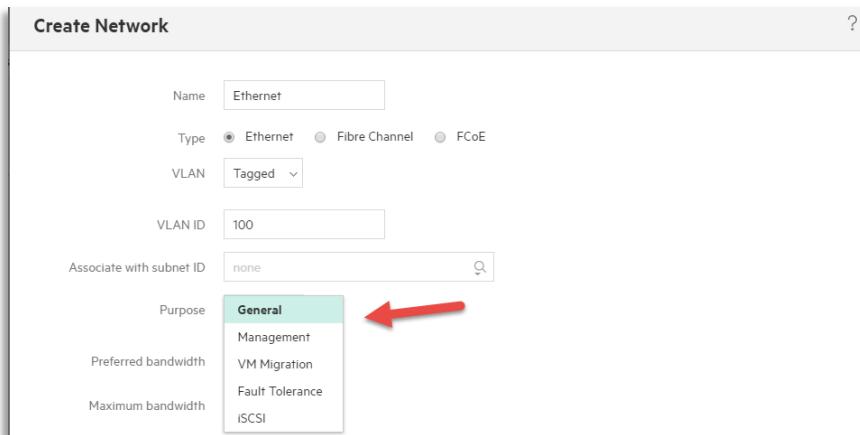


6. Enter the **VLAN ID**.

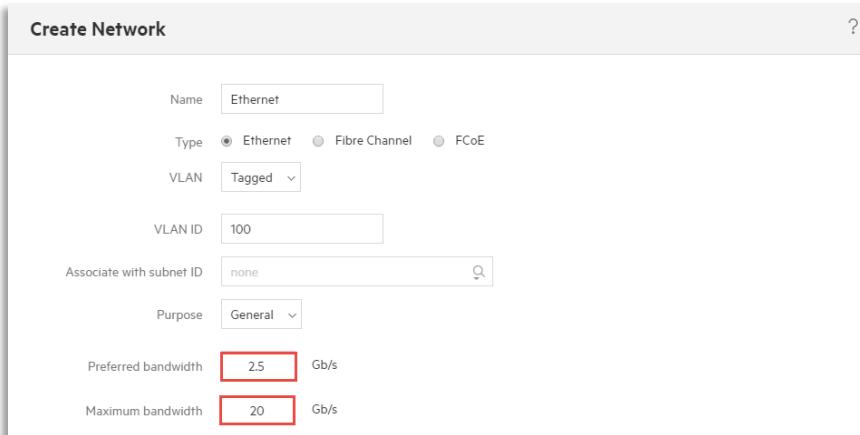


7. Select the Purpose of the network from the dropdown list. The *Purpose* drop-down selection is used by the HPE OneView for vCenter Plugin<sup>8</sup>.

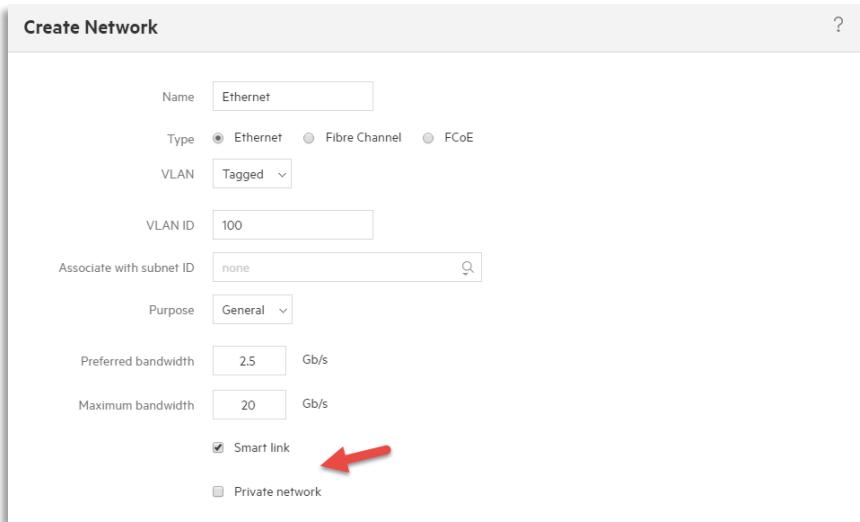
<sup>8</sup> <http://community.hpe.com/t5/Converged-Data-Center/Finally-an-integrated-tool-based-on-how-I-work/ba-p/6792411#.V8bSnJh95hF>



#### 8. Assign the Preferred and Maximum bandwidth settings.



#### 9. Enable any network options needed. *Smart Link* will automatically be selected by default. Selecting *Private Network* will mimic PVLAN behavior in that all assigned Network Connections will all be in an isolated network.



Click the **Create** button to create the new Ethernet Network and close the *Create Network* dialog box. You can also select the **Create+** button to continue creating more Networks – e.g. Create the B-Side Ethernet Network.

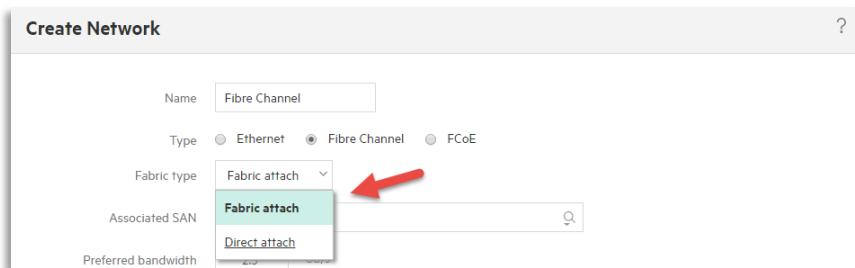
## Adding a Fibre Channel Network

- From the Top-Level Menu, select **Networks**, then select the **+Create Network** button.

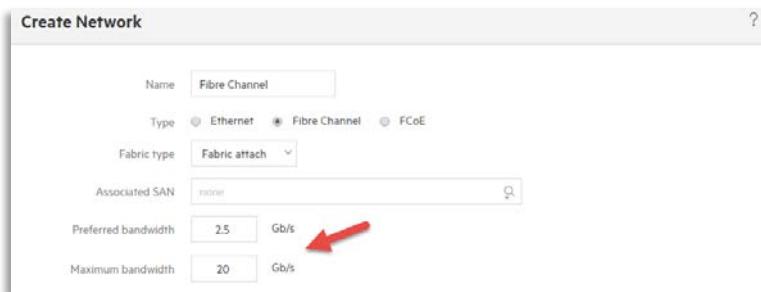
- In the Create Network dialog box, enter the **Name** of the Fibre Channel network

- Select **Fibre Channel** as the **Network Type**

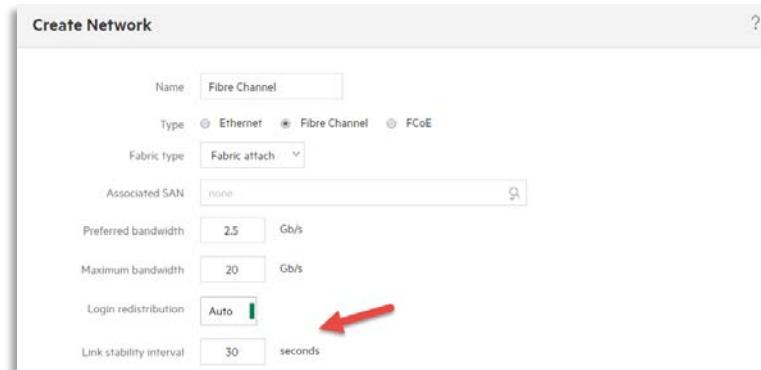
- Select **Fabric Attach** as the **Fabric Type**



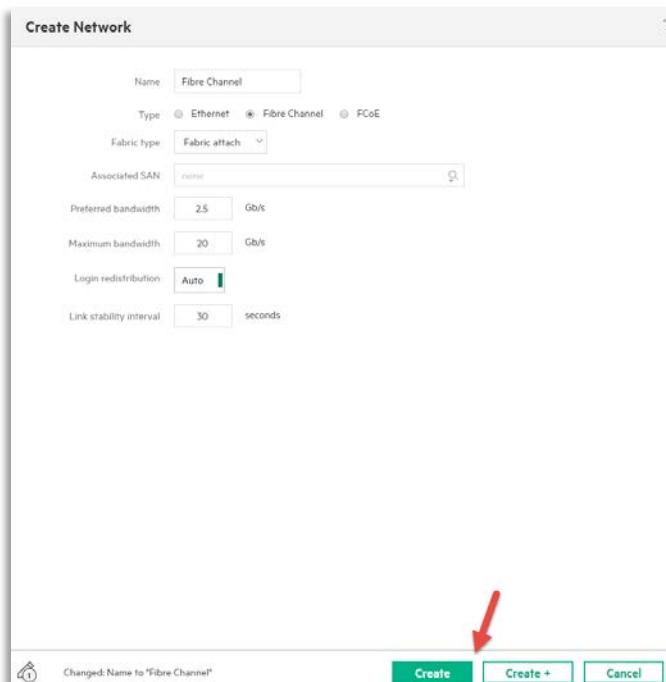
**5. Set the *Preferred and Maximum Bandwidth*.**



**6. Set the desired *Login Redistribution* and *Link Stability* interval to be used.**



**7. Click the **Create** button to create the new Ethernet Network and close the Create Network dialog box. You can also select the **Create+** button to continue creating more Networks.**



## Adding an Ethernet Uplink to a Logical Interconnect

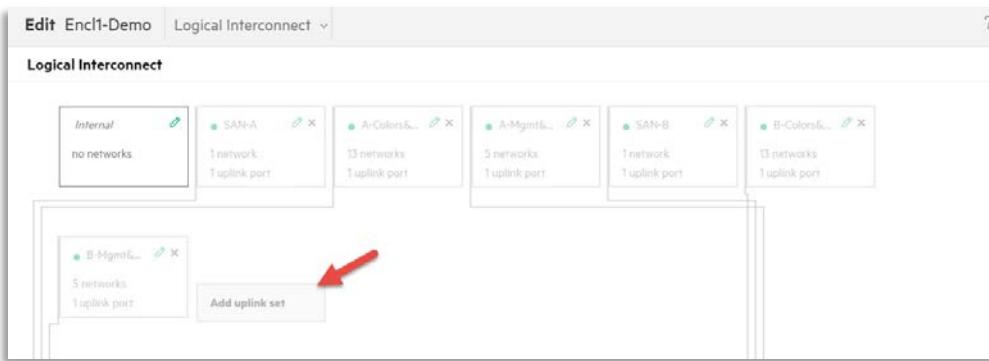
- From the Top-Level Menu, select **Logical Interconnect**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	<b>Networks</b>	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	SANs	Unmanaged Devices
	Enclosures		Interconnects	SAN Managers	
	Rack Managers		Logical Switch Groups		
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the left-hand menu, select the Logical Interconnect to be edited. Using the Actions menu, select **Edit**.

Logical Interconnects		All statuses ▾ All types ▾ All scopes ▾ All labels ▾
<input checked="" type="checkbox"/> Encl1-Demo	Logical Interconnect	<input checked="" type="checkbox"/> <b>Actions</b> ▾ <ul style="list-style-type: none"> <li><b>Edit</b></li> <li>Update firmware</li> <li>Redistribute logins</li> <li>Configure port monitoring</li> <li>Reapply configuration</li> <li>Download MAC table</li> </ul>
<input checked="" type="checkbox"/> Encl2-Demo		

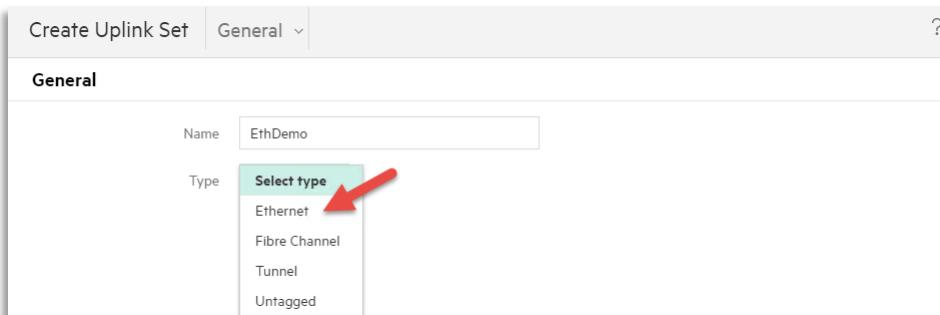
- In the Edit window, select **Add Uplink Set**.



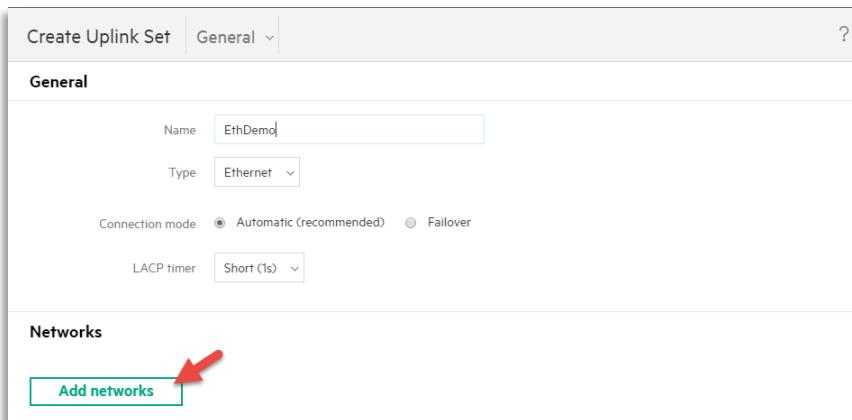
4. Enter a **name** for the Uplink Set



5. Select **Ethernet** as the Network Type



6. Select the **Add Networks** button



7. Select the network that will be added to the new Uplink Set, then click the **Add** button.

Name	Type	VLAN ID
VMotion-A	Ethernet	200
VMotion-B	Ethernet	200

**Add** **Add +** **Cancel**

8. Select the **Add uplink ports** button.

Name	Type	VLAN ID	Native
VMotion-A	Ethernet	200	<input type="checkbox"/>

**Remove all**

**Uplink Ports**

**Add uplink ports**

9. Select the ports that will be used for the new uplink. Click the **Add** button.

Interconnect Module	Port	Capability
Encl1, interconnect 1	Q1.1	Ethernet + FCoE
Encl1, interconnect 1	Q1.2	Ethernet + FCoE
Encl1, interconnect 1	Q1.3	Ethernet + FCoE
Encl1, interconnect 1	Q1.4	Ethernet + FCoE
Encl1, interconnect 1	Q2.1	Ethernet + FCoE
Encl1, interconnect 1	Q2.2	Ethernet + FCoE
Encl1, interconnect 1	Q2.3	Ethernet + FCoE
Encl1, interconnect 1	Q2.4	Ethernet + FCoE
Encl1, interconnect 1	Q3.1	Ethernet + FCoE
Encl1, interconnect 1	Q3.2	Ethernet + FCoE
Encl1, interconnect 1	Q3.3	Ethernet + FCoE
Encl1, interconnect 1	Q3.4	Ethernet + FCoE
Encl1, interconnect 1	Q4.1	Ethernet + FCoE

**Add** **Add +** **Cancel**

10. Click the **Create** button to create the new Ethernet Uplink

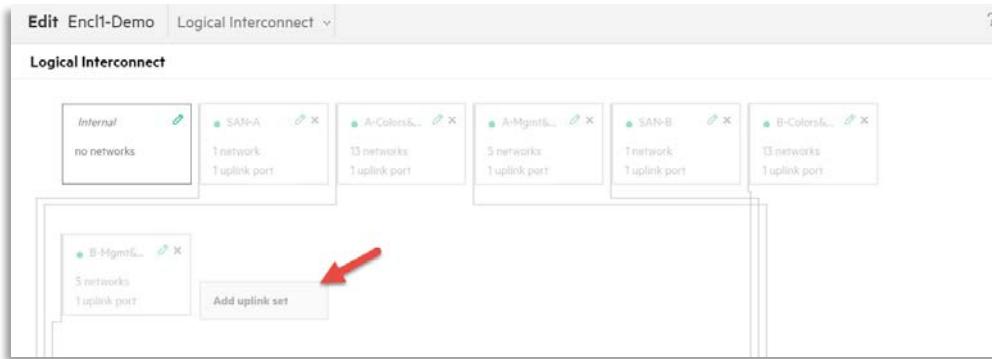
11. Click the **OK** button to enable the new Ethernet Uplink

## Adding a Fibre Channel Uplink

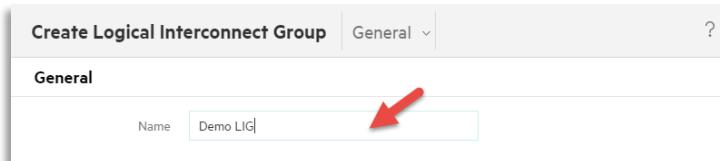
1. From the Top-Level Menu, select **Logical Interconnect**.

2. From the left-hand menu, select the Logical Interconnect to be edited. Using the Actions menu, select **Edit**.

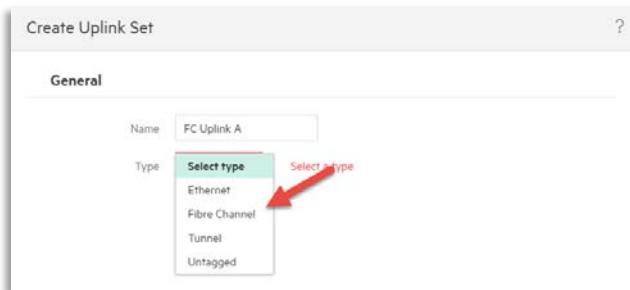
3. In the Edit window, select **Add Uplink Set**.



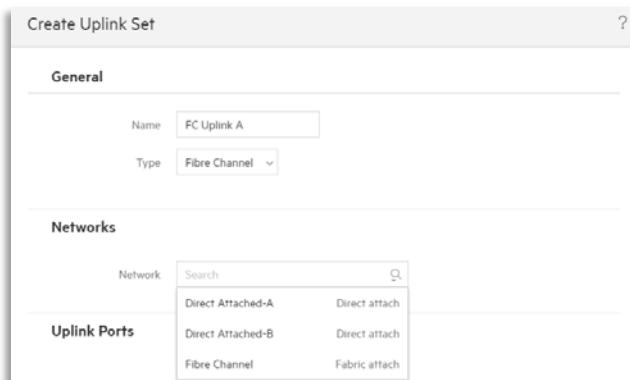
4. Enter a **name** for the Uplink Set



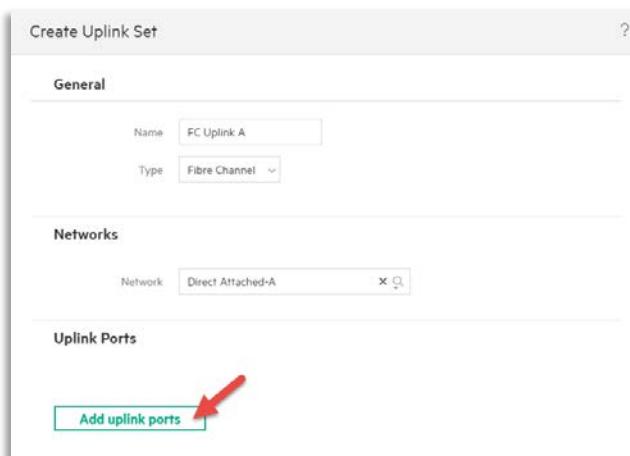
5. From the Type drop down list select **Fibre Channel**.



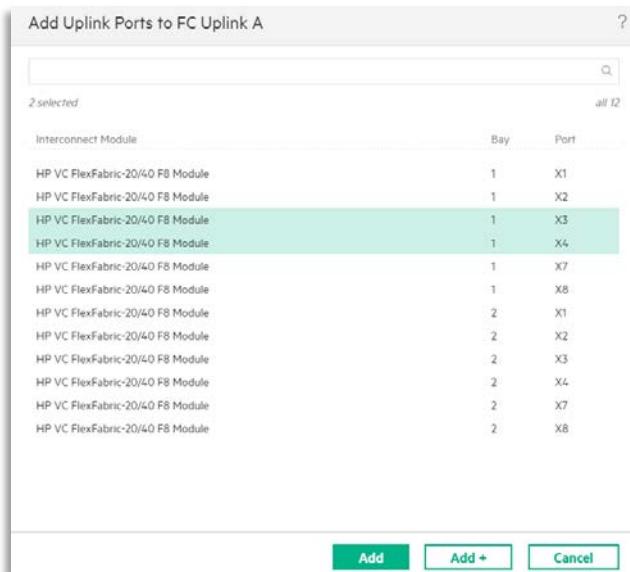
6. In the Networks section, select the desired **SAN Fabric Name** from the drop-down list.



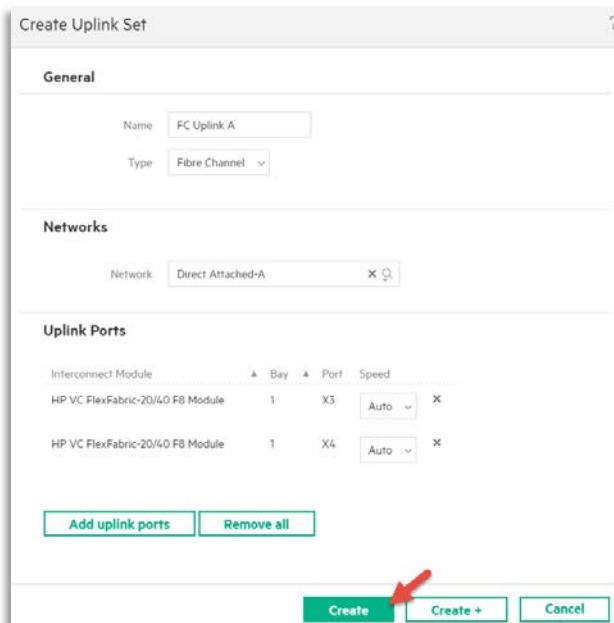
7. Under the Uplink Ports heading, click **Add Uplink Ports**



8. In the Add Uplink Ports to Uplink dialog, select at least one port for the uplink then click **Add**.



9. Click the **Create** button to finalize the Fibre Channel Uplink.



10. Click the **OK** button to create the new Fibre Channel Uplink Set by saving the *Logical Interconnect*.

## Create Additional Storage Volume Templates for StoreServ Volumes

Storage Volume Templates allow the Storage Administrator to specify a set of volume properties when creating multiple volumes or to enforce certain volume property settings when other admins are creating volumes. Storage Volume Templates are not required in order to provision Storage Volumes (unless the HPE OneView global storage setting to require a volume template is enabled – described later).

Create a storage volume template as follows.

1. From the Top-Level menu, select **Volume Templates**.

The screenshot shows the HPE OneView interface with the 'STORAGE' section selected. Under 'VOLUMES', the 'Volume Templates' option is highlighted with a red arrow pointing to it. Other options like 'Data Centers', 'Racks', and 'Settings' are also visible in the same row.

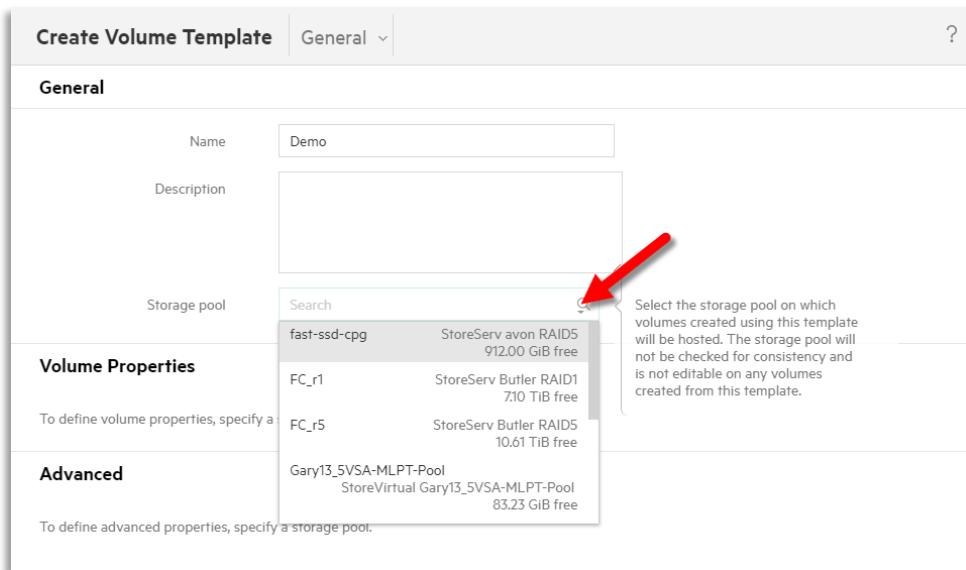
2. Click **Create volume template** button

The screenshot shows the 'Volume Templates' list page. A red arrow points to the green '+ Create volume template' button at the top left of the list area.

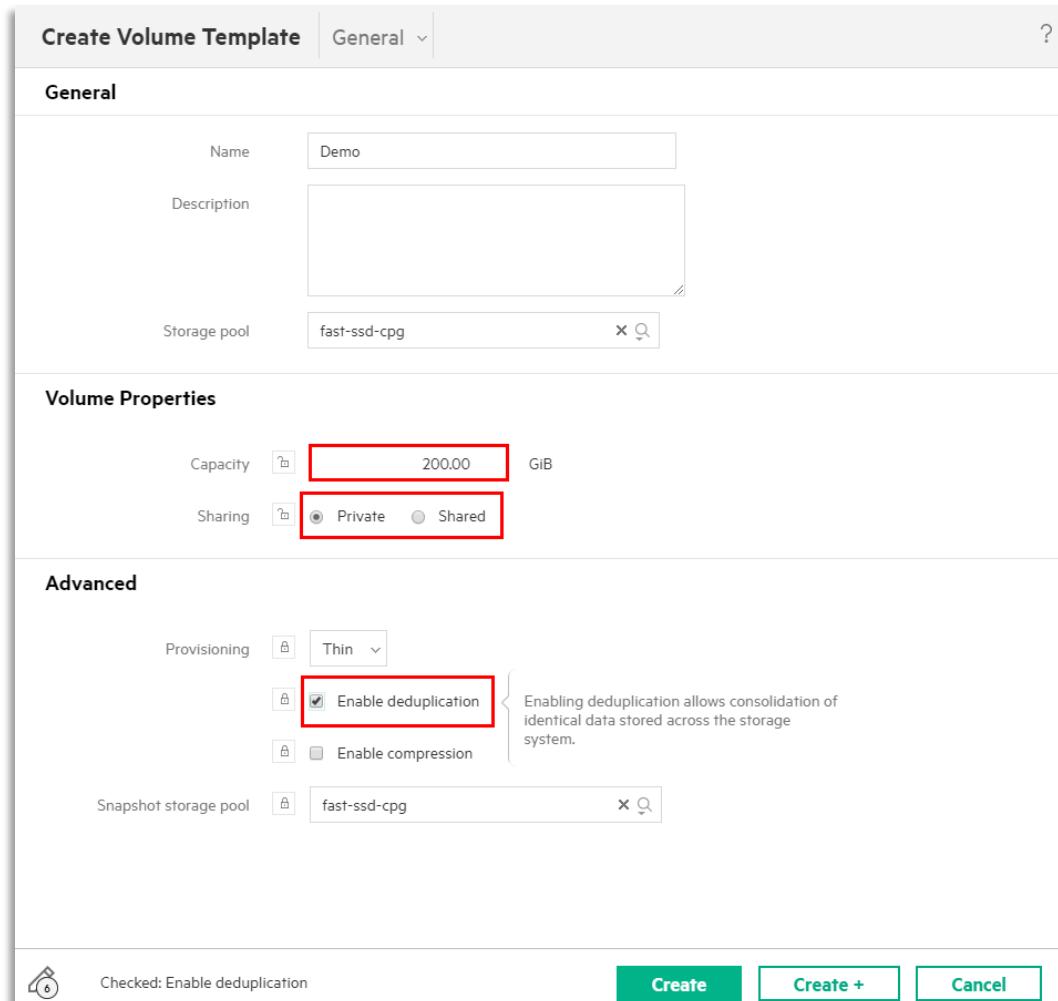
3. In the Create Volume Template screen, enter a **Name** for the Volume template and an optional description.

The screenshot shows the 'Create Volume Template' dialog with the 'General' tab selected. The 'Name' field is filled with 'Demo', which is highlighted with a red box. The 'Description' field is empty.

4. Using the storage pool drop down list, select the **Storage pool** the volume template will create volumes from.



5. Once the volume template's storage pool is selected, the volume template is populated with the volume properties specific to volumes created within the pool. HPE 3PAR StoreServ pools (shown below) support different properties than HPE StoreVirtual pools. Select the volume property settings as desired.



6. Next, select the enforcement mode for each volume property. Volume properties which are **locked** are not editable when a volume is created using the template. Volume properties which are **unlocked** are editable when a volume is created using the template. Click the lock icons to toggle property enforcement between **locked** and **unlocked**.

**Create Volume Template** | General | ?

**General**

Name	Demo
Description	
Storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="S"/>

**Volume Properties**

Capacity	200.00 GiB
Sharing	<input type="radio"/> Private <input type="radio"/> Shared

**Advanced**

Provisioning	Thin <input type="button" value="▼"/>
	<input checked="" type="checkbox"/> Enable deduplication
	<input type="checkbox"/> Enable compression
Snapshot storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="S"/>

 Checked: Enable deduplication

7. Then click the **Create** or **Create +** button to create the volume template.

**Create Volume Template** General ?

**General**

Name: Demo

Description:

Storage pool: fast-ssd-cpg

**Volume Properties**

Capacity: 200.00 GiB

Sharing: Private

**Advanced**

Provisioning: Thin

Enable deduplication

Enable compression

Snapshot storage pool: fast-ssd-cpg

Checked: Enable deduplication

**Create** **Create +** **Cancel**

8. (Optional) If the Storage administrator wants to require that non-storage administrators must use storage volume templates when creating volumes, the *Require template for Volume Creation* Global Policy needs to be set, which is in the *Settings* menu.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES	SETTINGS
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers	<b>Settings</b>
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks	Users and Groups
Firmware Bundles			Logical Interconnect	Storage Pools	Power Delivery	
Reports	Enclosure Groups	Hypervisor Managers	Groups	Storage Systems	Devices	
	Logical Enclosures		Logical Interconnects	SANs	Unmanaged Devices	
	Enclosures		Interconnects	SAN Managers		
	Rack Managers		Logical Switch			
	Server Hardware		Groups			
	Server Hardware Types		Logical Switches			
			Switches			

9. In the Settings **Storage** section, click the **Edit** action.

The screenshot shows the 'Settings' page in the HPE OneView interface. It includes sections for Appliance, Backup, Networking, Time and Locale, and Activity. A red arrow points to the 'Edit' icon in the Storage section.

10. Click the toggle to start requiring a storage volume template whenever non-storage administrators create volumes. Click **OK** to apply the setting

The screenshot shows the 'Edit Storage' dialog box. The 'Require a template for volume creation' checkbox is checked ('Yes'). A red box highlights this checkbox. A red arrow points to the 'OK' button at the bottom right of the dialog. A tooltip explains that this setting applies globally to all storage systems.

## Create Additional StoreServ Storage Volumes

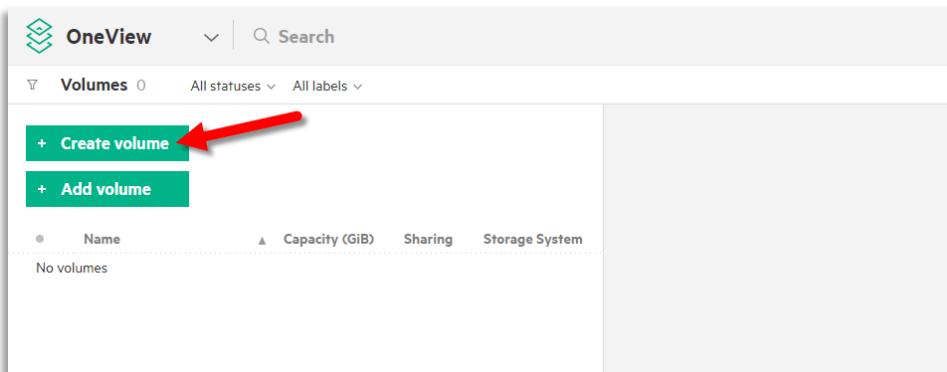
Volumes can be created independent of server profiles within the **Volumes** view, under the Storage column of the Top-Level Menu within the UI or created as part of a server profile. When created using the Volumes view, the volume's lifecycle will be independent of server profiles (i.e. "permanent"). When created as part of a server profile, the volume's lifecycle can optionally be tied to the server profile (i.e. "non-permanent", also called "Ephemeral") such that when the server profile is deleted, the volume will be deleted as well.

Volumes can be created by either server or storage administrator roles.

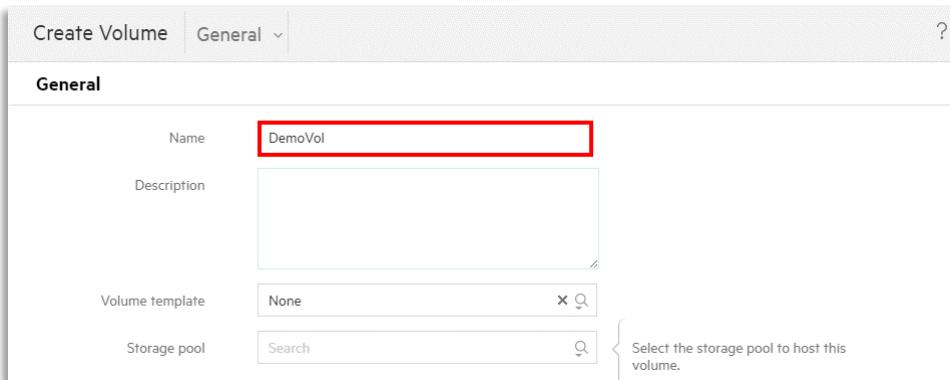
1. From the Top-Level menu, select **Volumes**.

The screenshot shows the Top-Level menu in the HPE OneView interface. The 'Storage' tab is selected. Under the 'Storage' category, the 'Volumes' link is highlighted with a red arrow. Other options include Data Centers, Racks, Power Delivery Devices, Unmanaged Devices, and Settings.

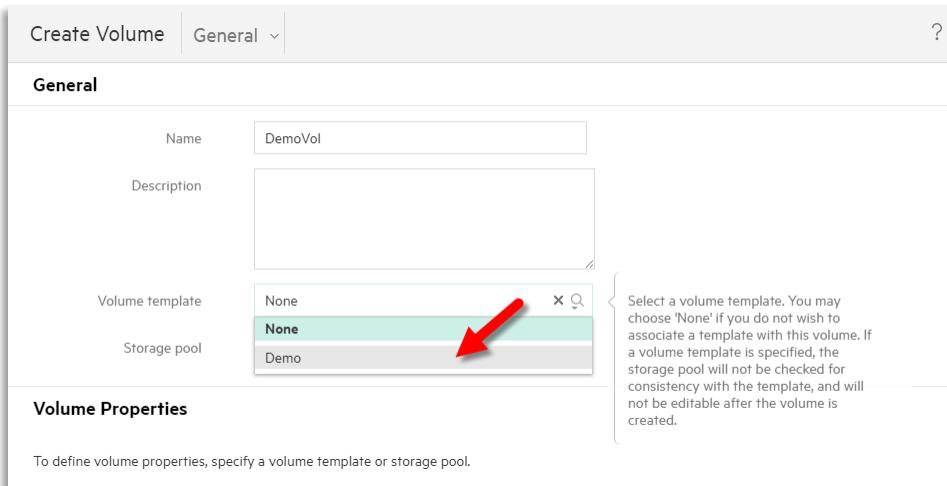
2. Click the **Create volume** button.



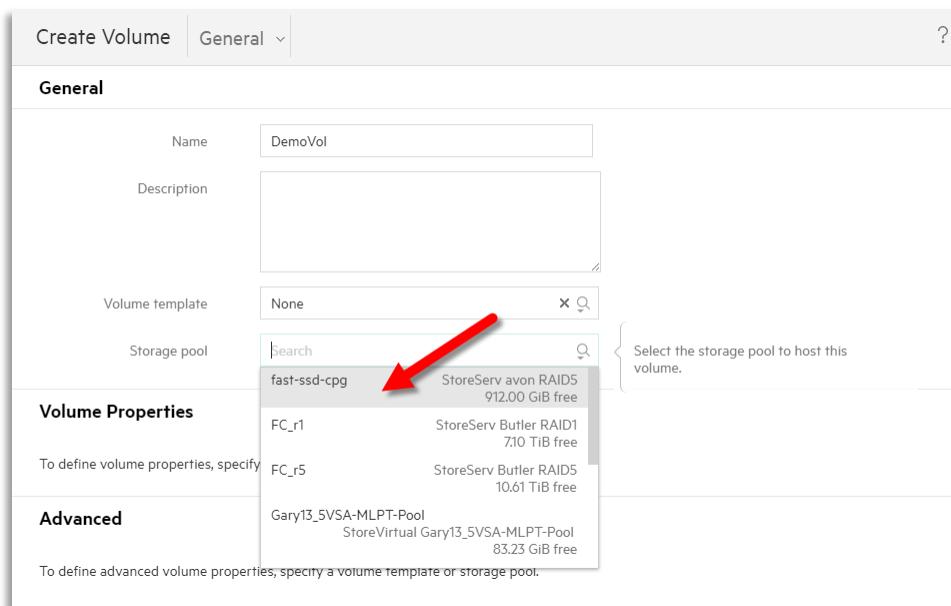
3. In the Create Volume screen, enter a **Name** and optionally a description for the volume.



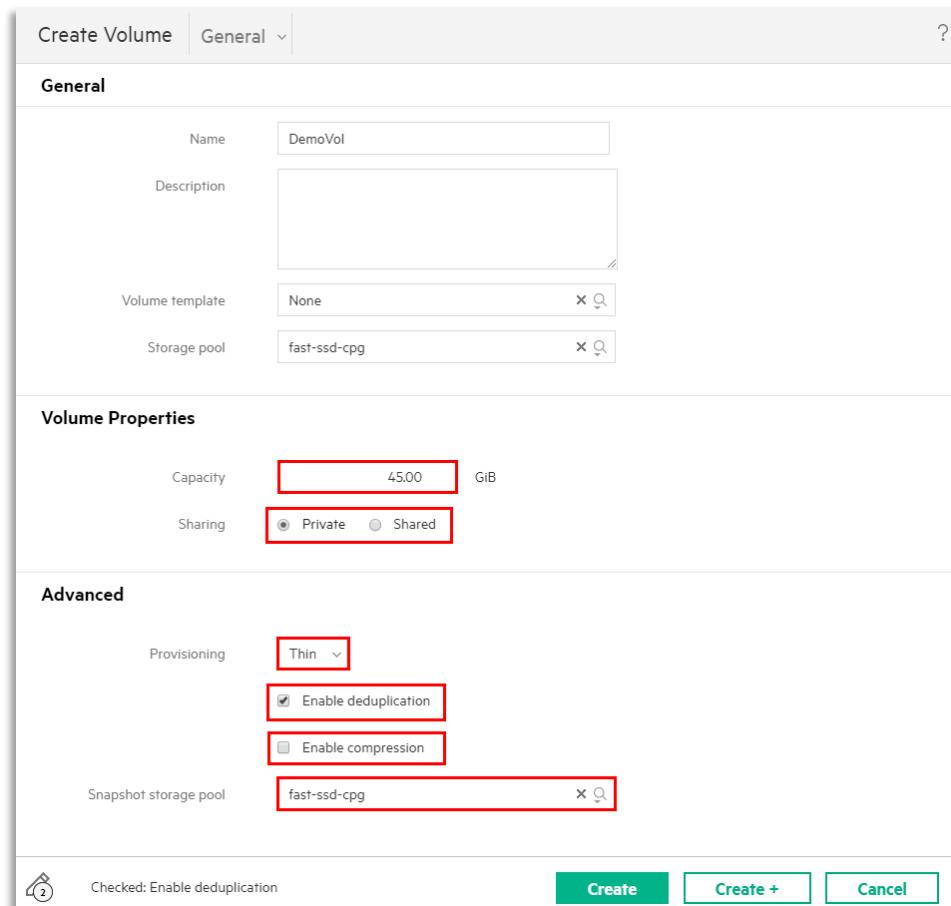
4. In the Create Volume screen, the options can be restricted if the Storage Administrator has forced Volume Creation to be provisioned from a Volume Template. Otherwise, the administrator creating the **Volume** may choose whether it will be associated with an available Volume Template or not. When creating a volume from a volume template select the template.



5. If not associated with a volume template, select the **Storage Pool** for the volume



6. After selecting a volume template or storage pool, the Volume properties will be populated with the properties that can be set for the volume. HPE StoreServ storage pools allow different properties to be set on volumes than HPE StoreVirtual storage pools. Set the **volume properties** for the volume.



7. Click **Create** or **Create+** button to create the volume.

Create Volume General ?

**General**

Name	DemoVol
Description	
Volume template	None <input type="button" value="x"/> <input type="button" value="Q"/>
Storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>

**Volume Properties**

Capacity	45.00 GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

**Advanced**

Provisioning	Thin <input type="button" value="v"/>
<input checked="" type="checkbox"/> Enable deduplication <input type="checkbox"/> Enable compression	
Snapshot storage pool	fast-ssd-cpg <input type="button" value="x"/> <input type="button" value="Q"/>

Checked: Enable deduplication

**Note**

When creating volumes, HPE OneView attempts to name volumes on the storage system as close as possible to volume names in HPE OneView. When the HPE OneView volume name is not a valid volume name on the storage system (unsupported characters, too long, already exists, etc.), HPE OneView will remove illegal characters, shorten and ensure the name is unique to create a legal name on the storage system. Any scripting communicating with both systems needs to be aware of this.

## Create Additional Storage Volume Templates for StoreVirtual Volumes

Storage Volume Templates allow the Storage Administrator to specify a set of volume properties when creating multiple volumes or to enforce certain volume property settings when server admins are creating volumes. Storage Volume Templates are not required in order to provision Storage Volumes (unless the HPE OneView global storage setting to require a volume template is enabled – described elsewhere). Create the volume template as follows.

- From the Top-Level menu, select **Volume Templates**.

The screenshot shows the HPE OneView interface with the 'Storage' section highlighted. A red arrow points from the 'Volume Templates' link in the 'STORAGE' row to the 'Create volume template' button in the next step's screenshot.

GENERAL	SERVERS	HYPERSOURCES	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

## 2. Click **Create volume template** button

The screenshot shows the 'Volume Templates' list screen. A red arrow points to the green 'Create volume template' button at the top left of the page.

## 3. In the Create Volume Template screen, enter a **Name** for the Volume template

The screenshot shows the 'Create Volume Template' General tab. The 'Name' field is populated with 'Demo' and has a red box around it.

## 4. Enter a **description** for the Volume Template

The screenshot shows the 'Create Volume Template' General tab. The 'Description' field contains 'iSCSI Volume Template Demo' and has a red box around it.

## 5. Using the storage pool drop down list, select the **Storage pool**

The screenshot shows the 'Create Volume Template' General tab. The 'Storage pool' dropdown menu is open, showing several options. A red arrow points to the 'GaryVSACluster' option at the bottom of the list, which is highlighted with a red box.

6. In the Volume Properties section, select the **capacity** for the volume template

**Create Volume Template** General ?

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

**Volume Properties**

Capacity: 50.00 GiB

Enter a volume capacity for this volume template.

7. In the Volume Properties section, select the **Sharing option** for the volume template

**Create Volume Template** General ?

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

**Volume Properties**

Capacity: 50.00 GiB

Sharing: Private Shared

8. In the Advanced section, use the provisioning drop down list to select the **provisioning model** for the volume template

**Create Volume Template** General ?

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

**Volume Properties**

Capacity: 50.00 GiB

Sharing: Private Shared

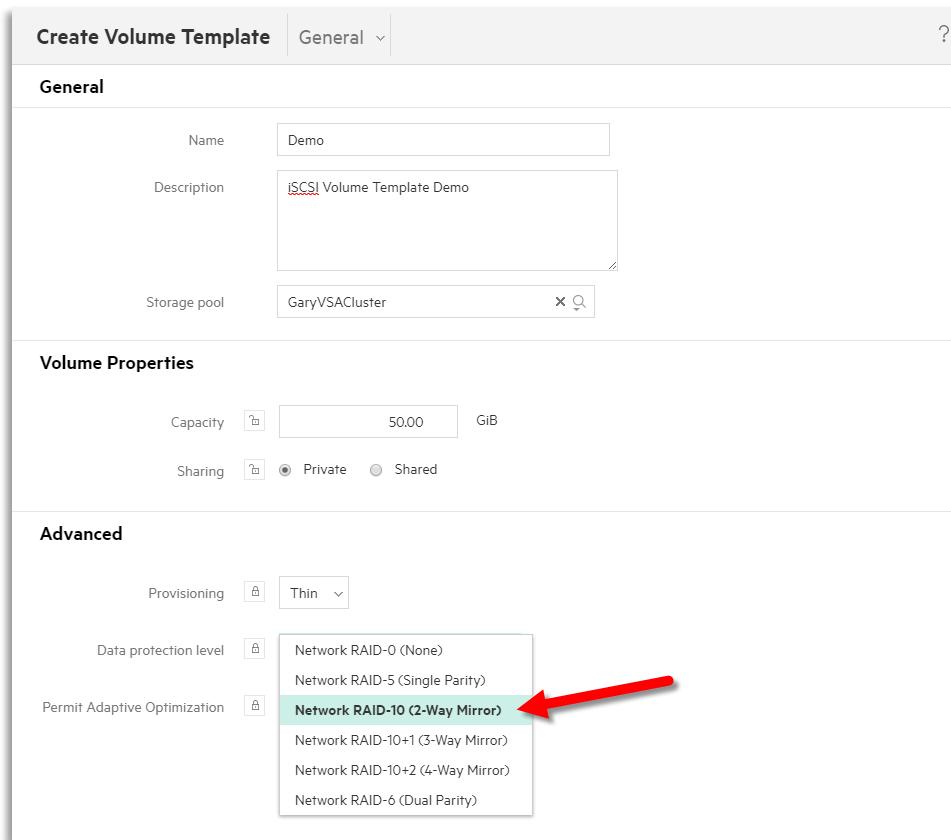
**Advanced**

Provisioning: Thin Full

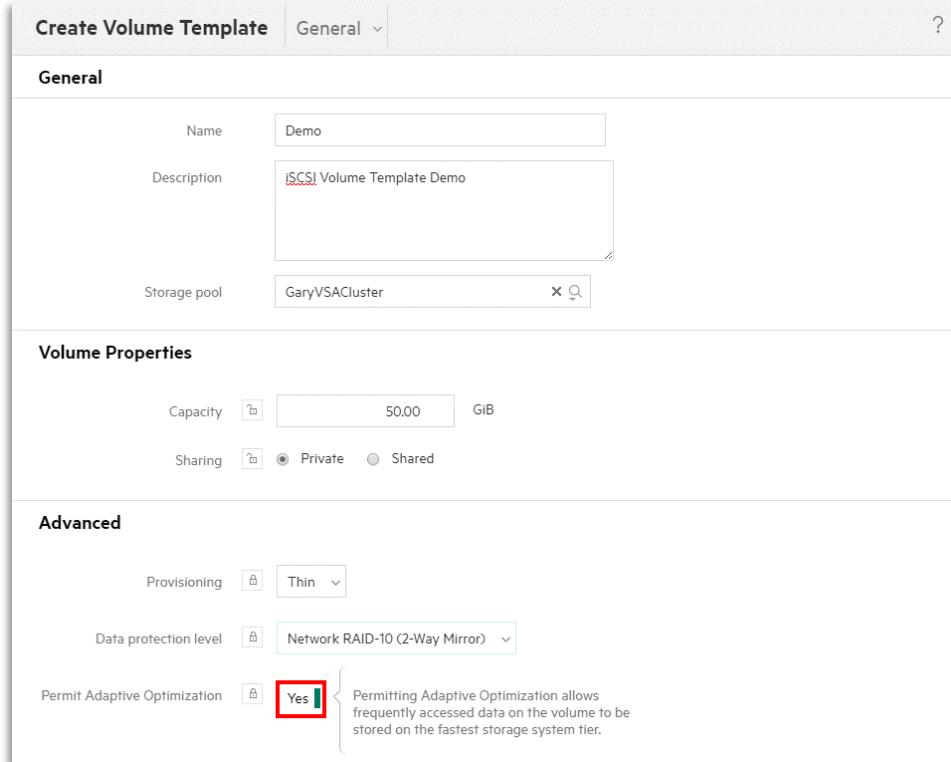
Select provisioning type for this template. Provisioning type will not be checked for consistency and is not editable on any volumes created from this template.

Data protection level: Network RAID-10 (2Way Mirror)

9. In the Advanced section, select the **Data Protection Level** for the volume template



10. In the Advanced section, select the **Permit Adaptive Optimization** for the volume template



11. Next, select the enforcement mode for each volume property. Volume properties which are **locked** are not editable when a volume is created using the template. Volume properties which are **unlocked** are editable when a volume is created using the template. Click on the lock icons to toggle between **locked** and **unlocked** property enforcement.

**Create Volume Template** General ?

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

**Volume Properties**

Capacity: 50.00 GiB

Sharing: Private

Provisioning: Thin

Data protection level: Network RAID-10 (2-Way Mirror)

Permit Adaptive Optimization: Yes

Changed: Provisioning to "Thin"

**Create** **Create +** **Cancel**

12. Then click the **Create** or **Create+** button.

**Create Volume Template** General ?

**General**

Name: Demo

Description: iSCSI Volume Template Demo

Storage pool: GaryVSACluster

**Volume Properties**

Capacity: 50.00 GiB

Sharing: Private

Provisioning: Thin

Data protection level: Network RAID-10 (2-Way Mirror)

Permit Adaptive Optimization: Yes

Changed: Provisioning to "Thin"

**Create** **Create +** **Cancel**

## Create Additional StoreVirtual Storage Volumes

Volumes can be created independent of server profiles within the **Volumes** view, under the Storage column of the Top-Level Menu within the UI or created as part of a server profile. When created using the Volumes view, the volume's lifecycle will be independent of all server profiles (i.e. "permanent"). When created as part of a server profile, the volume's lifecycle can optionally be tied to the server profile (i.e. "non-permanent", also called "Ephemeral") such that when the server profile is deleted, the volume will be deleted as well.

This section shows creating additional volumes independent of server profiles.

- From the Top-Level menu, select **Volumes**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Groups	Storage Systems	Users and Groups
	Enclosures		Logical Interconnects	SANs	Unmanaged Devices
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

- Click the **Create volume** button.

- In the Create Volume screen, enter a **Name** for the volume

Name	<input type="text" value="Demo"/>
------	-----------------------------------

- Enter a **description** for the volume

Name	<input type="text" value="Demo"/>
Description	<input type="text" value="Demo Volume"/>

- In the Create Volume screen, the options can be restricted if the Storage Administrator has forced Volume Creation to be provisioned from a Storage Volume Template. Otherwise, the administrator creating the **Volume** may choose whether it will be associated with an available Storage Volume Template.



6. If not associated with a volume template, select the **Storage Pool** for the volume

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Search 35 out of 50

**Volume Properties**

To define volume properties, specify

**Advanced**

To define advanced volume properties

7. In the Volume Properties section, set the **Capacity** for the volume

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

**Volume Properties**

Capacity 1.00 GiB

8. In the Volume Properties section, set the **Sharing Method** for the volume

Create Volume | General | ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

### Volume Properties

Capacity	1.00 GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

9. In the Advanced section, set the **Provisioning method** for the volume

Create Volume | General | ?

### General

Name	Demo
Description	iSCSI Demo Volume
Volume template	None
Storage pool	Cluster-1

### Volume Properties

Capacity	1.00 GiB
Sharing	<input checked="" type="radio"/> Private <input type="radio"/> Shared

### Advanced

Provisioning	Thin Full
--------------	--------------

Select provisioning type for this volume. If a volume template is specified, the provisioning type will not be checked for consistency with

10. In the Advanced section, set the **Data protection level** for the volume

The screenshot shows the 'Create Volume' dialog in HPE OneView. The 'General' tab is selected. In the 'Advanced' section, the 'Provisioning' dropdown is set to 'Thin'. The 'Data protection level' dropdown is open, showing several options: 'Network RAID-0 (None)', 'Network RAID-5 (Single Parity)', 'Network RAID-10 (2-Way Mirror)', 'Network RAID-10+1 (3-Way Mirror)', 'Network RAID-10+2 (4-Way Mirror)', and 'Network RAID-6 (Dual Parity)'. The 'Network RAID-10 (2-Way Mirror)' option is highlighted with a green background and has a red arrow pointing to it.

11. In the Advanced section, set the **Permit Adaptive Optimization** for the volume

The screenshot shows the 'Create Volume' dialog in HPE OneView. The 'General' tab is selected. In the 'Advanced' section, the 'Provisioning' dropdown is set to 'Thin'. The 'Data protection level' dropdown is set to 'Network RAID-10+1 (3-Way Mirror)'. The 'Permit Adaptive Optimization' checkbox is checked, indicated by a green checkmark and a red arrow pointing to it.

12. Click **Create** or **Create+** button to create the volume.

Create Volume General ?

**General**

Name: Demo

Description: iSCSI Demo Volume

Volume template: None

Storage pool: Cluster-1

**Volume Properties**

Capacity: 1.00 GiB

Sharing: Private

**Advanced**

Provisioning: Thin

Data protection level: Network RAID-10+1 (3-Way Mirror)

Permit Adaptive Optimization: Yes

Changed: Data protection level to "Network RAID-10+1 (3-Way Mir...".

**Create** **Create +** **Cancel**

## Configuring 3PAR Thin Dedupe on Volumes

HPE 3PAR StoreServ storage systems running Inform OS 3.2.1 MU1 and later support Thin Deduplication provisioning on SSD storage pools. To create volumes using Thin Deduplication provisioning, perform the following.

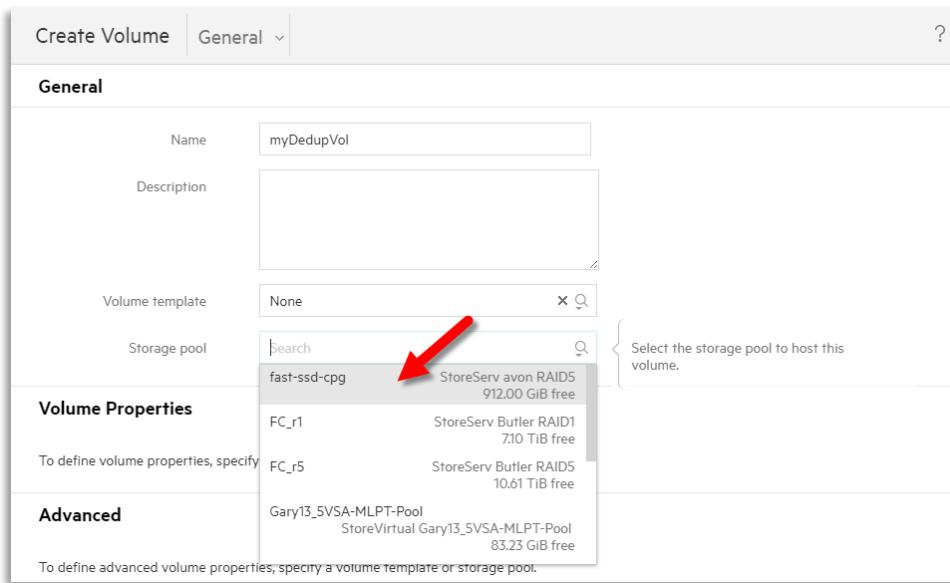
- From the top-level menu, select **Volumes**.

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures		Groups	Storage Systems	Devices
	Enclosures		Logical Interconnects	SANs	Unmanaged Devices
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

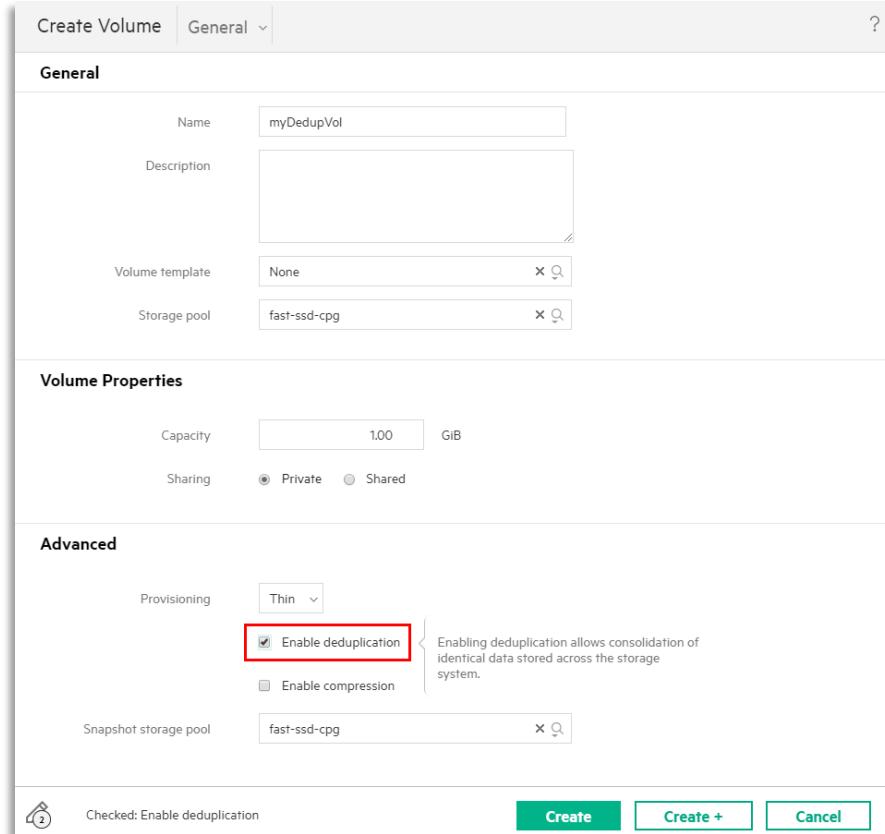
- Select **create volume** from the left-hand pane.

Volumes 0				All statuses	All labels	?
<a href="#">+ Create volume</a> <a href="#">+ Add volume</a>						
Name	Capacity (GiB)	Sharing	Storage System			
No volumes						

- Select an SSD drive type storage pool on a StoreServ storage system supporting Thin Deduplication.



4. Select the **Thin Deduplication** provisioning type for the volume.



5. Click **Create** or **Create+** to create the volume.

Create Volume General ?

### General

Name: myDedupVol

Description:

Volume template: None

Storage pool: fast-ssd-cpg

### Volume Properties

Capacity: 1.00 GiB

Sharing: Private

### Advanced

Provisioning: Thin

Enable deduplication

Enable compression

Snapshot storage pool: fast-ssd-cpg

Checked: Enable deduplication

**Create** **Create +** **Cancel**

## Create Storage Snapshots

- From the top-level menu, select **Volumes**.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the left-hand menu, select the **desired volume** that will have the snapshot taken

Name	Capacity (GiB)	Sharing	Storage System
ESXi Shared	800.00	Shared	ThreePAR1
Splunk Database	500.00	Shared	ThreePAR1

**Actions**

**ESXi Shared** General ?

### General

State: Managed

Description: Shared Volume for virtual machines

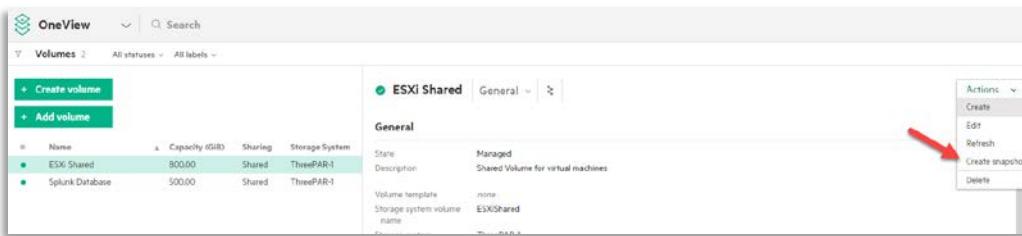
Volume template: none

Storage system volume name: ESXiShared

Storage system: ThreePAR1

Storage pool: CPG-SSD

- From the Actions menu, select **Create Snapshot**.



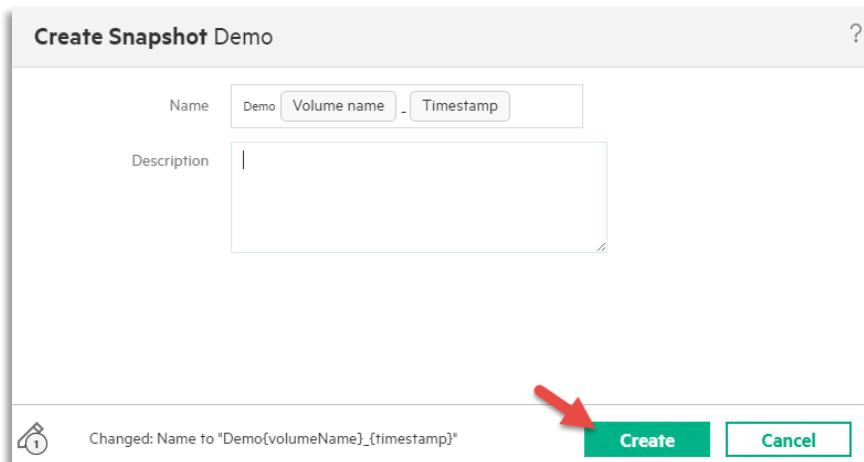
4. In the Create Snapshot window, enter a **description** for the snapshot

The screenshot shows the 'Create Snapshot Demo' dialog box. It has fields for 'Name' (containing 'Volume name - Timestamp') and 'Description' (an empty text area). At the bottom are 'Create' and 'Cancel' buttons. A red box highlights the 'Description' field.

A. (Optional) You will notice that a Name is already created using the variables of [Volume Name]\_[Timestamp]. This can be changed by selecting inside of the Name dialog box and editing the data within.

The screenshot shows the 'Create Snapshot Demo' dialog box again. The 'Name' field contains 'Demo Volume name - Timestamp'. A tooltip on the right says 'Enter a name for this snapshot.' Below the 'Name' field, it says 'None available'. At the bottom are 'Create' and 'Cancel' buttons. A red box highlights the 'Name' field.

5. Click **Create** to create the snapshot



## Viewing Storage Snapshots

- From the top-level menu, select **Volumes**.

The screenshot shows the OneView navigation menu. The 'Storage' category is highlighted with a red arrow. Under the 'Storage' category, the 'Volumes' link is also highlighted with a red arrow.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- From the left-hand menu, select a volume to view the snapshots associated with that volume.

The screenshot shows the OneView Volumes list page. The 'ESXi Shared' volume is selected, and its details are shown in the right panel. An arrow points to the 'Capacity (GiB)' column for the 'ESXi Shared' volume.

Name	Capacity (GiB)	Sharing	Storage System
ESXi Shared	800.00	Shared	ThreePAR-1
Splunk Database	500.00	Shared	ThreePAR-1

- Open the **General** menu for the volume

The screenshot shows the OneView Volumes list page. The 'ESXi Shared' volume is selected, and its details are shown in the right panel. An arrow points to the 'Actions' dropdown menu for the 'ESXi Shared' volume.

Name	Capacity (GiB)	Sharing	Storage System
ESXi Shared	800.00	Shared	ThreePAR-1
Splunk Database	500.00	Shared	ThreePAR-1

- Select **Snapshots** from the menu.

The screenshot shows the 'Volumes' list with two items: 'ESXi Shared' (80000 GB, Shared, ThreePAR-1) and 'Splunk Database' (50000 GB, Shared, ThreePAR-1). A context menu is open over the 'ESXi Shared' row, with 'Snapshots' highlighted by a red arrow.

##### 5. Examine the details of the snapshots available

The screenshot shows the 'Snapshots' view for the 'ESXi Shared' volume. It lists one snapshot: 'ESXi Shared 2017062816514'. The 'Actions' dropdown menu is open, and the 'Revert' option is highlighted with a red arrow.

## Deleting Storage Snapshots

### 1. From the top-level menu, select **Volumes**.

The screenshot shows the OneView navigation menu. Under the 'STORAGE' category, the 'VOLUMES' link is highlighted with a red arrow.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures		Groups	Groups	Storage Systems
	Enclosures		Logical Interconnects	Logical Interconnects	Devices
	Rack Managers		Interconnects	Interconnects	SANs
	Server Hardware		Logical Switch Groups	Logical Switch Groups	SAN Managers
	Server Hardware Types			Logical Switches	
				Switches	

### 2. From the left-hand menu, select a volume to view the snapshots associated with that volume.

The screenshot shows the 'Volumes' list with two items: 'ESXi Shared' (800.00 GB, Shared, ThreePAR-1) and 'Splunk Database' (500.00 GB, Shared, ThreePAR-1). A context menu is open over the 'ESXi Shared' row, with 'Revert' highlighted by a red arrow.

### 3. Open the **General** menu for the volume

The screenshot shows the 'Volumes' list with two items: 'ESXi Shared' (800.00 GB, Shared, ThreePAR-1) and 'Splunk Database' (500.00 GB, Shared, ThreePAR-1). A context menu is open over the 'ESXi Shared' row, with 'Revert' highlighted by a red arrow.

### 4. Select **Snapshots** from the menu.

The screenshot shows the 'Volumes' list in HPE OneView. A context menu is open for the 'ESXi Shared' volume, specifically on the 'Actions' dropdown. The 'Solutions' option is highlighted with a red arrow.

##### 5. Examine the details of the snapshots available

The screenshot shows the 'Solutions' page for the 'ESXi Shared' volume. The 'Solutions' tab is selected. The 'Snapshots' section displays a single snapshot entry: 'ESXi Shared\_20170628161514'. A red arrow points to this entry.

##### 6. Click the X next to the snapshot information to delete the desired snapshot

The screenshot shows the 'Solutions' page for the 'ESXi Shared' volume. The 'Solutions' tab is selected. The 'Snapshots' section displays a single snapshot entry: 'ESXi Shared\_20170628161514'. A red arrow points to the delete icon (an 'X') next to the snapshot name.

##### 7. Select Yes, delete on the delete snapshot confirmation dialog

The screenshot shows a 'Delete Snapshot?' confirmation dialog. It contains a message: 'Deleting this snapshot will result in loss of all data on the snapshot.' Below the message are two buttons: 'Yes, delete' (highlighted with a red arrow) and 'Cancel'.

##### 8. Verify that the snapshot has been removed from the volume

The screenshot shows the 'Solutions' page for the 'ESXi Shared' volume. The 'Solutions' tab is selected. The 'Snapshots' section shows a completed task: 'Delete snapshot ESXi Shared Completed 1s'. Below the task, a message says 'No snapshots'. A red arrow points to this message.

## Reverting to previous Storage Snapshots

### 1. From the top-level menu, select **Volumes**.

The screenshot shows the HPE OneView interface with the 'Storage' category highlighted in the top navigation bar. The 'Volumes' option under 'Storage' is also highlighted with a red arrow.

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	<b>Volumes</b>	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Devices
	Enclosures		Interconnects	SANs	Unmanaged Devices
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. From the left-hand menu, select a volume to view the snapshots associated with that volume.

The screenshot shows the 'Volumes' details page for the 'ESXi Shared' volume. A red arrow points to the volume name 'ESXi Shared' in the list on the left. The right panel displays the 'General' tab of the volume's properties.

Name	Capacity (GiB)	Sharing	Storage System
ESXi Shared	800.00	Shared	ThreePAR-1
Splunk Database	500.00	Shared	ThreePAR-1

**General**

- State: Managed
- Description: Shared Volume for virtual machines
- Volume template: none
- Storage system volume name: ESXiShared
- Storage system: ThreePAR-1

3. Open the **General** menu for the volume

The screenshot shows the 'Volumes' details page for the 'ESXi Shared' volume. A red arrow points to the 'General' menu icon in the top right corner of the right panel. The 'General' tab is selected.

Name	Capacity (GiB)	Sharing	Storage System
ESXi Shared	800.00	Shared	ThreePAR-1
Splunk Database	500.00	Shared	ThreePAR-1

**General**

- State: Managed
- Description: Shared Volume for virtual machines
- Volume template: none
- Storage system volume name: ESXiShared
- Storage system: ThreePAR-1

4. Select **Snapshots** from the menu.

The screenshot shows the 'Volumes' details page for the 'ESXi Shared' volume. A red arrow points to the 'Snapshots' menu option in the dropdown menu. The 'General' tab is selected.

Name	Capacity (GiB)	Sharing	Storage System
ESXi Shared	800.00	Shared	ThreePAR-1
Splunk Database	500.00	Shared	ThreePAR-1

**General**

- State: Managed
- Description: Shared Volume for virtual machines
- Volume template: none
- Storage system volume name: ESXiShared
- Storage system: ThreePAR-1

**Snapshots**

5. Examine the details of the snapshots available

The screenshot shows the 'Volumes' details page for the 'ESXi Shared' volume. A red arrow points to the 'Revert' hyperlink next to the most recent snapshot. The 'Snapshots' tab is selected.

Name	Created At	Action
ESXi Shared	2017062816514	Revert

**Snapshots**

- Expand all | Collapse all
- ESXi Shared | 2017062816514 | Revert | Create volume

**Volume Attachments**

6. Select the **Revert** hyperlink

The screenshot shows the HPE OneView web interface. On the left, there's a sidebar with 'Create volume' and 'Add volume' buttons. The main area displays a table of volumes with columns for Name, Capacity (GiB), Sharing, and Storage System. An 'ESXi Shared' volume is selected. To the right, a 'Snapshots' dialog is open for this volume. It lists a single snapshot named 'Demo,20170628163048'. At the bottom of the dialog, there are 'Revert' and 'Create volume' buttons, with a red arrow pointing to the 'Revert' button.

**7. Select **Yes, revert** on the Revert Snapshot confirmation dialog**

This is a modal confirmation dialog. The title bar says 'Revert Demo to DemoDemo\_20160808203848'. The main content area has a yellow background and contains a warning message: 'Reverting to a snapshot of the volume will result in loss of current data in the volume. Perform a backup or take a snapshot of the volume before reverting it to a snapshot.' At the bottom are two buttons: 'Yes, revert' (highlighted with a red arrow) and 'Cancel'.

**8. The revert process will begin**

The screenshot shows the HPE OneView interface. The 'Volumes' list on the left shows three volumes: 'Demo' (selected), 'ESXi Shared', and 'Spark Database'. The 'Snapshots' dialog for the 'Demo' volume is open, showing a single snapshot named 'Demo,20170628163048'. A red arrow points to the progress bar in the dialog, which shows 'Revert to snapshot Demo' and 'Administrator 6/28/17 11:22:00 am'. Below the dialog, the main volume list shows the 'Demo' volume with its status changed to 'Revert'.

**9. Verify that the revert process completed successfully**

The screenshot shows the HPE OneView interface. The 'Volumes' list on the left shows three volumes: 'Demo' (selected), 'ESXi Shared', and 'Spark Database'. The 'Snapshots' dialog for the 'Demo' volume is open, showing a single snapshot named 'Demo,20170628163048'. A red arrow points to the status message 'Revert to snapshot Completed 2s' at the bottom of the dialog. The main volume list shows the 'Demo' volume with its status back to 'Normal'.

## Removing Networks from a Server Profile

**1. From the Top-Level Menu, select **Server Profiles****

The screenshot shows the HPE OneView interface with the 'SERVERS' tab highlighted. Under the 'SERVERS' tab, the 'Server Profiles' link is selected, indicated by a red arrow.

GENERAL	SERVERS	HYPERVERISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

2. Select the server profile you want to edit from the menu on the left

The screenshot shows the 'Server Profiles' list view. The 'Demo SP' profile is selected. The main pane displays the profile's details: Name (Demo SP), Server profile template (none), Server hardware (Enc1\_bay\_1), Server hardware type (BL660c Gen9.1), Enclosure group (EG1), and Affinity (Device bay). An 'Actions' dropdown menu is open on the right, with the 'Edit' option highlighted by a red arrow.

3. From the Actions menu, select **Edit**.

The screenshot shows the 'Server Profiles' list view with the 'Edit' action selected in the Actions menu. The main pane displays the profile's details: Name (Demo SP), Server profile template (none), Server hardware (Enc1\_bay\_1), Server hardware type (BL660c Gen9.1), Enclosure group (EG1), and Affinity (Device bay).

4. Scroll down to the connections section of the Server Profile Dialog

**Edit Demo SP | General**

**General** Description Demo Server Profile

Server profile template: none

Server hardware: Enc1, bay1

Server hardware type: BL660c Gen9 1 Change

Enclosure group: EG1 Change

Affinity: Device bay ▾

**Firmware**

Firmware baseline: managed manually ▾

**Connections**

ID	Name	Network	Port	Boot
1	Colors-A	Colors-A (network set)	FlexibleLOM 1:1-a	Not bootable

Type: Ethernet

5. Remove the desired network from the server profile by selecting the X next to the network name

**Edit Demo SP | Connections**

**Connections**

ID	Name	Network	Type	WWNN	WWPN	MAC address	Requested bandwidth
4	SAN-B	SAN_B	Direct attach	10:00:32:0f:4b:f0:00:01 (v)	10:00:32:0f:4b:f0:00:00 (v)	AA:BB:D3:E0:00:12 (v)	2.5 Gb/s
5	Finance-A	Finance-A	vlan155	10:00:32:0f:4b:f0:00:03 (v)	10:00:32:0f:4b:f0:00:02 (v)	AA:BB:D3:E0:00:13 (v)	2.5 Gb/s
6	Finance-B	Finance-B	vlan155	10:00:32:0f:4b:f0:00:04 (v)	10:00:32:0f:4b:f0:00:03 (v)	AA:BB:D3:E0:00:14 (v)	2.5 Gb/s

Add Connection

6. Click the **OK** button to save the changes to the Server Profile.

**Edit Demo SP** | **Connections** | ?

**Connections**

WWN	WWNN	MAC address	Requested bandwidth			
10:00:32:0f:4bf0:00:01 (v)	10:00:32:0f:4bf0:00:00 (v)	AA:BB:D3:E0:00:12 (v)	2.5 Gb/s			
4 SAN-B	<u>SAN_B</u>	Direct attach	FlexibleLOM 1:2-b	Not bootable		
Type	Fibre Channel					
WWNN	10:00:32:0f:4bf0:00:03 (v)					
WWPN	10:00:32:0f:4bf0:00:02 (v)					
MAC address	AA:BB:D3:E0:00:T3 (v)					
Requested bandwidth	2.5 Gb/s					
5 Finance-A	<u>Finance-A</u>	vlan155	FlexibleLOM 1:1-c	Not bootable		
Type	Ethernet					
MAC address	AA:BB:D3:E0:00:14 (v)					
Requested bandwidth	2.5 Gb/s					

**Add Connection**

**Local Storage**

Integrated storage controller mode managed manually

**SAN Storage**

Delete connection: Finance-B

## Deleting a volume from HPE OneView

In this Use Case you will remove a volume from the HPE OneView.

1. From the Top-Level Menu, select **Volumes**

**OneView** ▾

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery
Reports	Logical Enclosures		Groups	Storage Systems	Devices
	Enclosures		Logical Interconnects	SANs	Unmanaged Devices
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

2. Select the volume to be deleted from the menu on the left

**OneView** ▾ | **Search**

**Volumes** 3 All statuses ▾ All labels ▾

+ Create volume	+ Add volume	Name	Capacity (GiB)	Sharing	Storage System
		Demo	100	Private	ThreePAR-1
		ESXi Shared	800.00	Shared	ThreePAR-1
		Splunk Database	500.00	Shared	ThreePAR-1

**Demo** General

**General**

State	Managed
Description	Demo Volume
Volume template	none
Storage system volume name	Demo
Storage system	ThreePAR-1
Storage pool	000-00000-1111

3. From the Actions menu, select **Delete**.

The screenshot shows the HPE OneView web interface. In the top left, there's a search bar and a 'Volumes' section with three items: 'Demo', 'ESXi Shared', and 'Spurk Database'. On the right, a detailed view of the 'Demo' volume is shown with fields like 'Name' (Demo), 'Capacity (GiB)' (1.00), 'Sharing' (Private), and 'Storage System' (ThreePAR-1). A context menu is open at the top right of the 'Demo' row, with 'Actions' expanded. The 'Delete' option is highlighted with a red arrow.

#### 4. Select the desired type of volume deletion

This screenshot shows a 'Delete Demo' dialog box. It contains two yellow informational boxes. The top box states: 'Deleting a volume from OneView and the storage system will result in loss of all data on the volume and any snapshots. Perform a backup of this volume before deleting it.' The bottom box states: 'Deleting a volume from OneView only removes OneView's visibility to the volume and its snapshots, but preserves it on the storage system.' Below these boxes, there is a question 'Delete volume from' followed by two radio button options: '(radio) OneView and the storage system' and '(radio) OneView only'. The first option is selected.

#### 5. Click the **Yes, Delete button** remove the volume.

This screenshot shows the same 'Delete Demo' dialog box as the previous one, but with a red arrow pointing to the 'Yes, delete' button at the bottom. The dialog contains the same informational boxes and radio button options as the previous screenshot.

#### 6. Verify that the volume has been deleted

This screenshot shows the 'Volumes' list again. The 'Demo' volume is now listed with a status message: 'Delete Completed 2s'. A red arrow points to this status message. The other volumes ('ESXi Shared' and 'Spurk Database') are still present in the list.

## Adding a New Blade to an Enclosure and Discovering New Server Hardware Types

As it was discussed in the first chapter, Deploying Your Appliance, Server Hardware Types are automatically discovered and defined by HPE OneView when a new server is added to the environment. This section outlines how to add a new server and the expected behavior. When a new blade is inserted into an HPE OneView managed enclosure, the OA will register a *Blade Insertion* SNMP event, which will be forward to HPE OneView. A discovery task will be created, which HPE OneView will attempt to configure the iLO for management.

1. Insert new blade into the enclosure
2. From the Top-Level Menu, select **Enclosures**

The screenshot shows the HPE OneView interface with the 'Enclosures' option highlighted in the left-hand navigation menu. Other visible options include 'Dashboard', 'Activity', 'Firmware Bundles', 'Reports', 'Servers', 'Hypervisors', 'Networking', 'Storage', and 'Facilities'.

3. From the left hand menu, select the **desired enclosure**

The screenshot shows the 'Enclosures' details page for 'Encl2'. The 'General' tab is selected, displaying information such as State (Configured), Model (BladeSystem c7000 Enclosure G3), Logical enclosure (Encl2), and Server licensing policy (HPE OneView Advanced). A red arrow points to the 'Encl2' entry in the list of enclosures on the left.

4. Select **Activity** using the General drop-down menu to see the Blade Inserted event.

The screenshot shows the 'Enclosures' details page for 'Encl2'. The 'General' tab is selected, and a red arrow points to the 'Activity' option in the dropdown menu. The 'Activity' dropdown also includes 'View', 'Overview', 'Hardware', 'Firmware', 'Devices', 'Interconnects', 'Power Supplies', 'Fans', 'Utilization', 'Remote Support', and 'Scopes'.

5. View the event



6. After the blade is inserted and discovered, if the server is a new model, or has different connectivity layout (i.e. different FlexLOM or mezzanine options installed) than other managed servers, a new Server Hardware Type will be created. To see this, from the Top-Level menu select **Server Hardware Types**.

## Adding New Racks Based on Location Discovery Services

Racks are automatically created based on LDS. HPE ProLiant Servers or HPE BladeSystem enclosures mounted in HPE Intelligent Series Racks are automatically grouped in racks in the proper positions. The initial rack names are provided by the Rack Serial Number.

## Adding Enclosures to Racks without Location Discovery Services

If no LDS is present, HPE BladeSystem enclosures automatically create an enclosing rack in HPE CI Mgmt. during the discovery process, based upon the name configured in the HPE BladeSystem Onboard Administrator.

- Use of BladeSystem management stacking link cables up/down for all enclosures in a rack is encouraged – it causes a single rack to be created per set of enclosures and the enclosures will be in the proper order in the rack. Specific slot positioning must be provided by adjusting the positioning in the UI or via REST
- If BladeSystem management stacking links are not used – one rack is created per enclosure. Manually change the HPE OneView configuration to put the enclosures into a single rack and delete any duplicated racks.

1. From the Top-Level Menu, select **Enclosures**.

The screenshot shows the main navigation pane of the HPE OneView interface. It is organized into several categories: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under the SERVERS category, the 'Enclosures' option is highlighted with a red arrow. Other options in the SERVERS category include Server Profiles, Server Profile Templates, Enclosure Groups, and Logical Enclosure.

2. Select the correct enclosure from the navigation pane on the left

The screenshot shows the 'Enclosures' details page for 'Enc12'. The left sidebar lists enclosures: 'Enc1' and 'Enc2'. 'Enc2' is highlighted with a red arrow. The main pane shows the 'General' tab for 'Enc12'. It includes fields for Name (Enc12), State (Configured), Model (BladeSystem c7000 Enclosure G3), Logical enclosure (Enc12), and Server licensing policy (HPE OneView Advanced). To the right is a 'Front View' diagram of a rack with 16 slots, showing which are occupied by green dots.

3. The information in the General section of the details pane allows you to see the rack automatically created to house the enclosure.

The screenshot shows the 'Enclosures' screen in HPE OneView. On the left, there's a sidebar with a '+ Add enclosure' button and a list of enclosures: 'Encl1' and 'Encl2'. The 'Encl2' entry is selected and highlighted in green. The main panel displays 'Encl2' details under three sections: 'General', 'Utilization', and 'Hardware'. In the 'Hardware' section, the 'Location' field is set to 'Primary\_Standby' and 'Rack-221'. To the right, there are 'Front View' and 'Rear View' diagrams showing server bays and rear ports.

## Adding Servers to Racks without Location Discovery Services

If LDS is not present, racks are not automatically created for rack mount servers. ProLiant servers may be added to racks previously created via enclosure discovery or racks may be created manually and have servers added to them. For either option, begin by navigating to the Racks screen.

- From the Top-Level Menu, select **Racks**.

The screenshot shows the HPE OneView top-level menu. It includes sections for GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under the FACILITIES section, 'Data Centers' and 'Racks' are listed. A red arrow points to the 'Racks' link. Other options like 'Power Delivery Devices' and 'Unmanaged Devices' are also shown.

- On the Racks screen, select the **Add Rack** button in the left panel.

The screenshot shows the 'Racks' screen in HPE OneView. The left panel has a '+ Add rack' button highlighted with a red arrow. The main panel shows 'Rack-221' details under 'General' and 'Layout' tabs.

- Once on the Add Rack screen, enter a **name** for the Rack

The screenshot shows the 'Add Rack' screen. It has tabs for 'Add Rack' and 'General'. The 'General' tab is active, showing a 'Hardware' section. In the 'Name' field, the value 'Demo' is entered and highlighted with a red box.

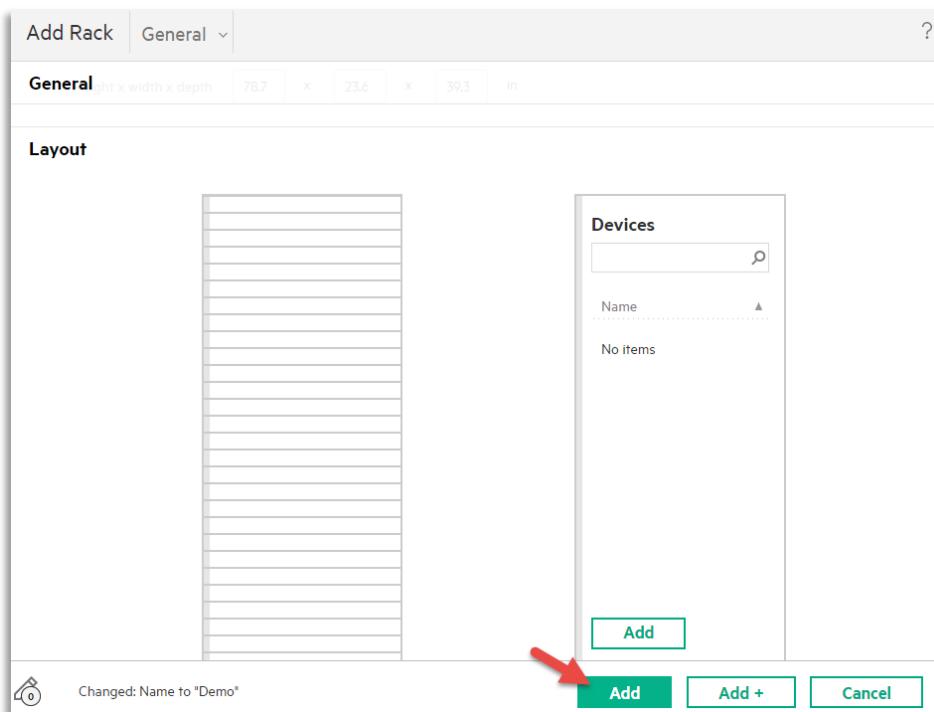
- In the General pane, enter the details about the rack (thermal limit, serial number, U-height and dimensions)

The screenshot shows the 'Add Rack' interface with the 'General' tab selected. Under the 'Hardware' section, there are three input fields: 'Name' (Demo), 'Thermal limit' (Watts, optional), and 'Serial number' (optional). Under the 'Dimensions' section, 'Rack height' is set to 42 U, and 'Height x width x depth' is specified as 78.7 x 23.6 x 39.3 in.

5. The Layout panel consists of a visual representation of the rack and its slots, a list of available devices and a search box to find the desire systems and enclosures. From this panel, you can add, remove, and rearrange devices within the rack and edit the device details. To place a device, drag and drop it in the desired location.

The screenshot shows the 'Add Rack' interface with the 'Layout' tab selected. On the left is a visual representation of a rack with 42 vertical slots. On the right is a 'Devices' catalog window titled 'Devices' with a search bar and a table header 'Name'. Below the table, it says 'No items'. At the bottom of the catalog window is a green 'Add' button.

6. Once the rack has been configured, select Add to complete the setup or Add + if additional racks need to be created.

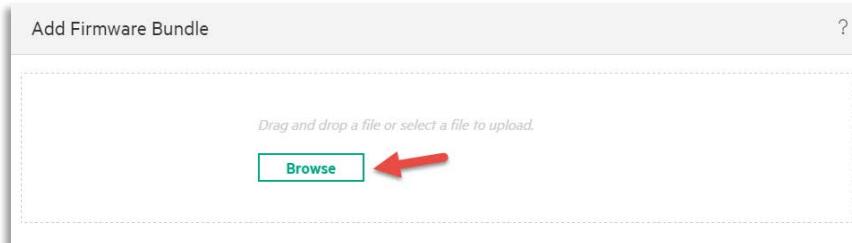


## Adding a Service Pack for ProLiant (SPP) Bundle

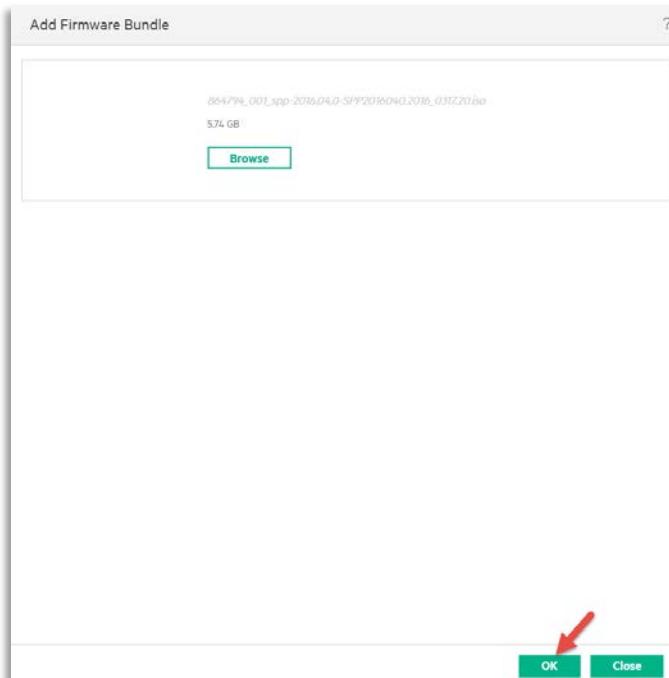
- From the Top-Level Menu, select **Firmware Bundles**

- To upload an SPP Bundle, click the **+Add Firmware Bundle** button

- On the Add Firmware Bundle window, click on the **Browse** button, and select the SPP ISO to upload.



4. Once selected, click the **Start Upload** button. You can also drag-and drop firmware bundles (SPPs) within Windows environments. You can navigate away from the Firmware Bundle screen to other areas within the UI, as the upload process is a background process within the browser.



The SPP upload will begin. You can click the **Close** button in the lower right, as that will only close the dialog box and not cancel the upload.

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**Note**

Do not close the browser window until the Firmware Upload task has completed. You can click on the *Close* button in the *Add Firmware Bundle* dialog as the upload is a background thread within the web application.

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5. After the SPP has been uploaded, you can examine the contents

The screenshot shows the 'Firmware Bundles' section of the HPE OneView interface. A specific firmware bundle, 'Service Pack for ProLiant, 2016.04.0', is selected. The 'Actions' dropdown menu is highlighted with a red arrow. The contents of the bundle are listed below, including various ROM flash components and supplemental updates.

Name	Version	Size	Type
Service Pack for ProLiant	2016.04.0	5.74 GB	SPP

**Contents**

File Name	Version
Online ROM Flash Component for Linux - HP ProLiant BL465c G1/BL465c G5/BL465c G6 (A15) Servers	2011.05.02
Online ROM Flash Component for Linux - HP ProLiant BL685c G6 (A17) Servers	2011.05.02
Online ROM Flash Component for Linux - HP ProLiant DL385 G5p/DL385 G6 (A22) Servers	2011.05.02
Online ROM Flash Component for Linux - HP ProLiant DL585 G2/DL585 G5/DL585 G6 (A07) Servers	2011.05.02
HP 3Gb SAS BL Switch Firmware Smart Component for Linux	2.21.7.0
Online ROM Flash Component for Linux - HP ProLiant DL785 G5/DL785 G6 (A15) Servers	2011.05.02
Supplemental Update / Online ROM Flash Component for Linux - Smart Array P700m	7.24
Online ROM Flash Component for Linux - HP ProLiant ML110 G7/DL120 G7 (J01) Servers	2013.07.01
Supplemental Update / Online ROM Flash Component for Linux - HP Gen8 Server Backplane Expander Firmware for HP Smart Array Controllers and HP HBA Controllers	3.30
Online ROM Flash Component for Linux - HP ProLiant SL4545 G7 (A31) Servers	2013.11.02
Supplemental Update / Online ROM Flash Component for Linux - DG0146FARVU, DG0300FARVY, DG0146BAMYQ, DG0300BAMYR, FG0116RAW1C, and FG0300FAW1D Drives	HPDG

Storage remaining: 6.19 GB

## Adding an External SPP Repository

HPE OneView 3.1 or newer supports external firmware repositories.

- From the Top-Level Menu, select **Settings**

The screenshot shows the top-level navigation menu of HPE OneView. The 'Settings' link is highlighted with a red arrow. Other options include Dashboard, Activity, Firmware Bundles, Reports, Servers, Hypervisors, Networking, Storage, Facilities, Data Centers, Racks, Power Delivery Devices, Unmanaged Devices, SANs, SAN Managers, Logical Interconnects, Logical Switch Groups, Logical Switches, and Switches.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Groups	Storage Systems	Unmanaged Devices
	Enclosures		Logical Interconnects	SANs	
	Rack Managers		Interconnects	SAN Managers	
	Server Hardware		Logical Switch Groups		
	Server Hardware Types		Logical Switches		
			Switches		

- Scroll to the bottom of the settings page and click **Repository**

The screenshot shows the 'Settings' page in the HPE OneView interface. It includes sections for Appliance, Backup, Networking, Time and Locale, Security, Activity, Remote Support, Storage, and Repository. The 'Repository' section is highlighted with a red arrow.

3. On the left-hand side of the page, click on the **+Add Repository** button

The screenshot shows the 'Repository 1' configuration page. It lists one internal repository named 'Internal' with 100.00 GB available space. A red arrow points to the '+ Add Repository' button in the top-left corner of the table header.

4. In the Add Repository menu, enter a name for the Repository.

The screenshot shows the 'Add Repository' dialog box. The 'General' tab is selected, and the 'Name' field contains 'SPP Repo', which is highlighted with a red box.

5. In the Add Repository menu, enter a webserver address for the Repository.

The screenshot shows the 'Add Repository' dialog box. The 'General' tab is selected, and the 'Webserver address' field contains 'http://172.23.1.30/deployment/spp/'. A callout bubble indicates that both http and https are supported.

6. In the Add Repository menu, enter the credentials to access the Repository.

**Add Repository**

**General**

Name: SPP Repo

Webserver address: http://172.23.1.30/deployment/spp/

Specify certificate

**Credentials**

Requires authentication

Username: [Redacted]

Password: [Redacted]

7. Click the **Add** button to finalize the repository.

**Add Repository**

**General**

Name: SPP Repo

Webserver address: http://172.23.1.30/deployment/spp/

Specify certificate

**Credentials**

Requires authentication

Username: user

Password: [Redacted]

Changed: Username to "user"

**Add** **Cancel**



## Updating the Firmware Baseline for Servers deployed with Server Profile Templates

Server Profiles created from Templates in HPE OneView are monitored for compliance with the desired Template. When inconsistencies are detected the profile is flagged as no longer being compliant with the template.

If a change is made to the firmware baseline were made then the user can update a single profile or all via the server profile template. This will bring the selected templates back in compliance with the Server Profile Template.

1. Ensure that the firmware bundle is uploaded to the HPE OneView appliance
2. From the Top-Level Menu, select **Server Profile Templates**.

The screenshot shows the HPE OneView interface with the 'Servers' tab selected. Under the 'Servers' tab, the 'Server Profiles' option is highlighted with a red arrow. Other options include 'Activity', 'Firmware Bundles', and 'Reports'. To the right of the main menu, there are sections for Hypervisors, Networking, Storage, and Facilities.

3. From the left-hand menu, select the server profile to be updated.

The screenshot shows the 'Server Profile Templates' page with the 'Demo' profile selected. The 'Actions' button is visible at the top right. The 'General' section displays various configuration details for the 'Demo' profile.

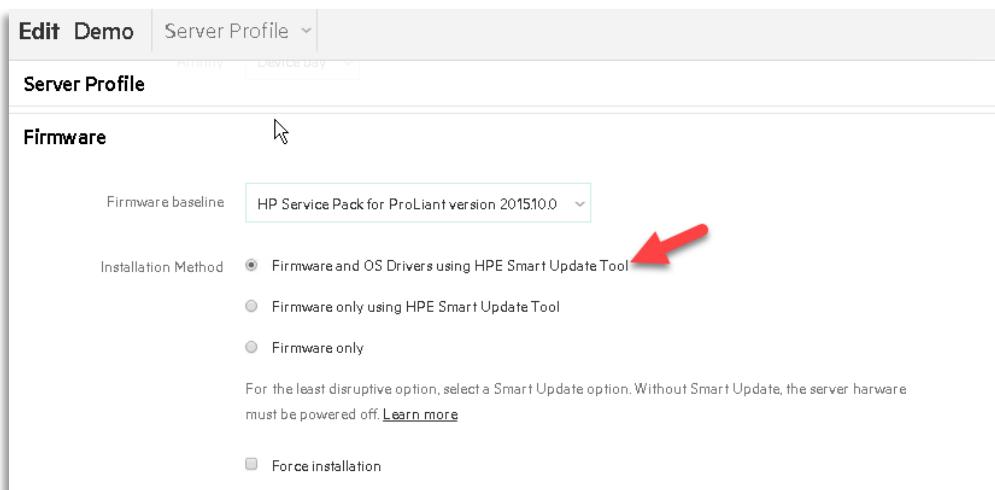
4. From the actions menu, select the **Edit**.

The screenshot shows the 'Server Profile Templates' page with the 'Actions' menu open, showing the 'Edit' option highlighted with a red arrow.

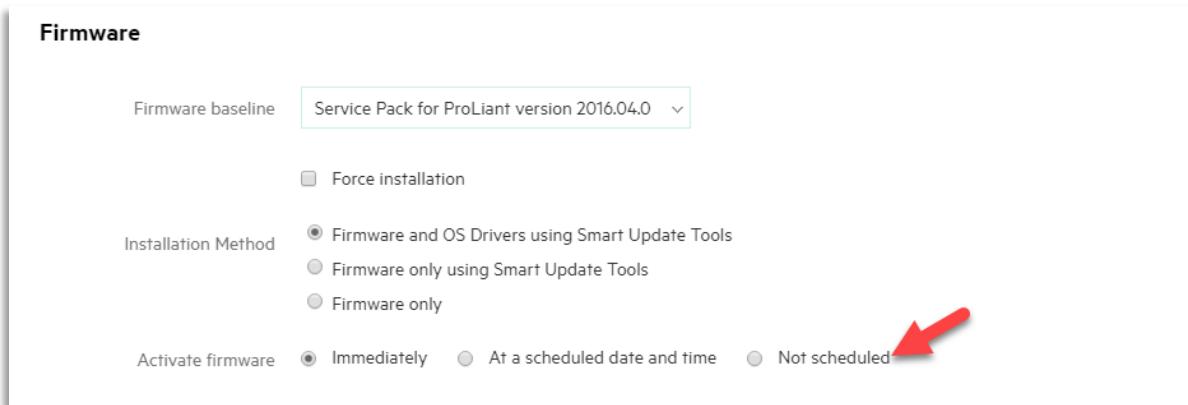
5. In the *Firmware* section of the Edit Profile page, select the **Firmware baseline** to be used for the Server Profile Template.

The screenshot shows the 'Edit Demo' page under the 'Server Profile' tab. In the 'Firmware' section, the 'Firmware baseline' dropdown is set to 'managed manually' and 'HP Service Pack for ProLiant version 2015.10.0' is selected. A red arrow points to the 'Service Pack for ProLiant version 2016.04.0' option. The 'Installation Method' dropdown shows 'eTool' selected. There is a note about selecting the least disruptive option and a link to 'Learn more'.

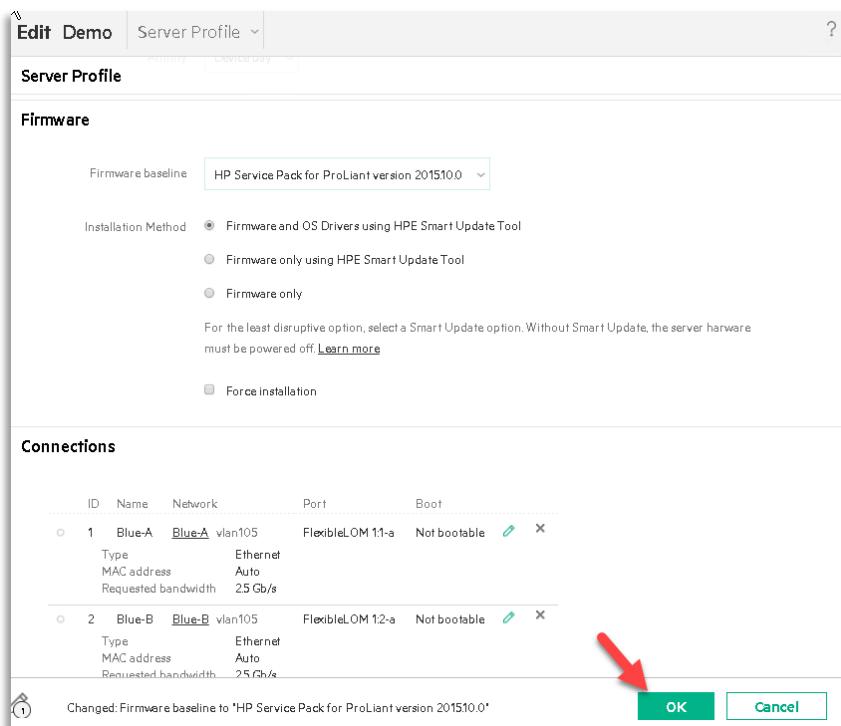
6. Select the method to deploy the firmware baseline update. If either of the options using the *HPE Smart Update Tools* is selected then the firmware or driver updates will be done while the systems are online. If the *firmware only* option is selected then the firmware will be updated offline using Intelligent Provisioning.



7. Select when the firmware updates will be applied



8. Click **OK** to apply the changes.



7. The server profile template will be updated with the new firmware baseline
8. Notice that the Server Profiles are not shown as being inconsistent with the Server Profile Template. Click the **Server Profiles** doughnut to view the server profiles using this template.

9. Select the server profiles within the server profile template to be updated with the new firmware baseline.

10. From the actions menu, select **Update from Template**

The screenshot shows the 'Server Profiles' section of the HPE OneView interface. On the left, there's a sidebar with a '+ Create profile' button. The main area lists five server profiles: 'Demo SP', 'ESX1', 'ESX2', 'ESX3', and 'ESX4'. To the right of the list is a 'Actions' dropdown menu with options like 'Create', 'Edit', 'Copy', 'Update from template', 'Launch console', 'Power on', and 'Delete'. A red arrow points to the 'Update from template' option.

11. Select, **Yes, Update** when the Update from Template Dialog box appears

This screenshot shows a modal dialog titled 'Update From Template 5 server profiles'. It contains a yellow warning box stating: 'Updating a server profile from its template will result in a reconfiguration of the server profile. This may disrupt network and storage connectivity.' Below the warning, there's a question: 'Update 5 server profiles from their templates?'. At the bottom are two buttons: a green 'Yes, update' button and a white 'Cancel' button. A red arrow points to the 'Yes, update' button.

12. The selected server profiles will now be updated with the changes to the server profile template.

## Updating the Firmware Baseline for Single Servers with Profiles Assigned

1. Ensure that the firmware bundle is uploaded to the HPE OneView appliance
2. From the Top-Level Menu, select **Server Profiles**.

This screenshot shows the HPE OneView navigation bar. The 'SERVERS' category is highlighted, and the 'Server Profiles' link is selected, indicated by a red arrow. Other categories shown include GENERAL, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Sub-links under SERVERS include Activity, Firmware Bundles, Reports, and Enclosure Groups.

3. Select the server profile to be modified, then select **Edit** from the actions menu.

This screenshot shows the 'Edit Profile' page for the 'HyperV1' server profile. The left panel displays the general configuration of the profile, including fields for Name, Description, Server profile template, Server hardware, Server hardware type, Endurance group, Affinity, Server power, Serial number, UUID, and iSCSI initiator name. The right panel shows the 'Firmware' section with details like Firmware baseline, Firmware install date, Installation Method, and a note about Service Pack for ProLiant version 2016.04.0 applied on June 15, 2016. A context menu is open on the right, with a red arrow pointing to the 'Edit' option.

4. In the General section of the Edit Profile page, select the **Firmware baseline** to be used for the Server Profile from the dropdown box.

**General**

Name: HyperV1

Description: Demo

Server profile template: none

Server hardware: End1,bay 3

Server hardware type: BL460c Gen8 1 [Change](#)

Enclosure group: Demo [Change](#)

Affinity: Device bay

**Firmware**

Firmware baseline: managed manually  
HP Service Pack for ProLiant version 201510.0

Installation Method:

- Service Pack for ProLiant version 2016.04.0 [Smart Update Tool](#)
- Firmware only using HPE Smart Update Tool
- Firmware only

For the least disruptive option, select a Smart Update option. Without Smart Update, the server hardware must be powered off. [Learn more](#)

Reset OK Cancel

5. Select the method to deploy the firmware baseline update. If either of the options using the *HPE Smart Update Tools* is selected then the firmware or driver updates will be done while the systems are online. If the *firmware only* option is selected then the firmware will be updated offline using Intelligent Provisioning.

**Firmware**

Firmware baseline: HP Service Pack for ProLiant version 201510.0

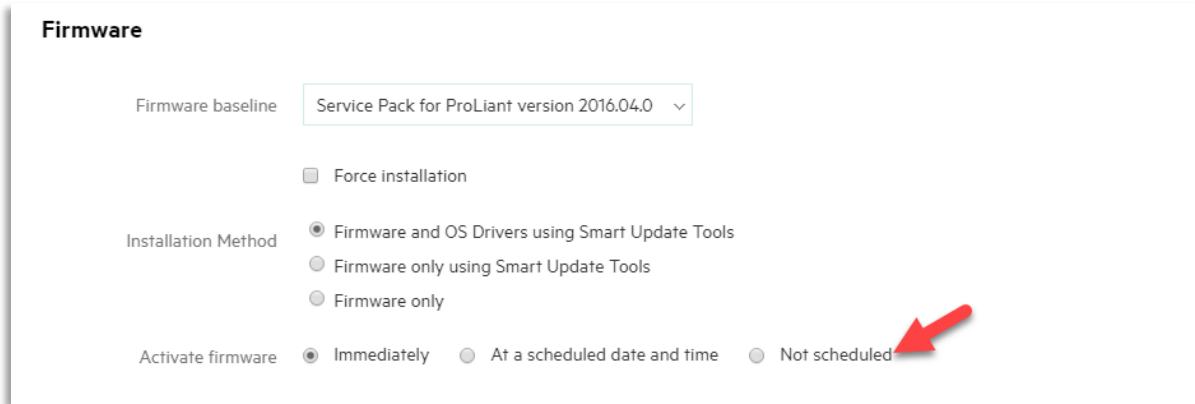
Installation Method:

- Firmware and OS Drivers using HPE Smart Update Tool
- Firmware only using HPE Smart Update Tool
- Firmware only

For the least disruptive option, select a Smart Update option. Without Smart Update, the server hardware must be powered off. [Learn more](#)

Force installation

6. Select when the firmware updates will be applied



7. Click **OK** to apply the changes.

## Managing Multiple Firmware Images in the Same Enclosure

Because HPE supports its SPP bundles for 12 months. It may be necessary to have different servers within the same enclosure on different SPP bundles. This enables a customer to update the infrastructure ahead of time and update the servers during their normal maintenance window.

- From the Top-Level Menu, select **Firmware Bundles**.

The screenshot shows the HPE OneView navigation bar. The 'Firmware Bundles' option under the 'Servers' category is highlighted with a red arrow. The navigation bar includes sections for General, Servers, Hypervisors, Networking, Storage, and Facilities.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<a href="#">Dashboard</a>	<a href="#">Server Profiles</a>	<a href="#">Hypervisor Cluster Profiles</a>	<a href="#">Networks</a>	<a href="#">Volumes</a>	<a href="#">Data Centers</a>
<a href="#">Activity</a>	<a href="#">Server Profile Templates</a>	<a href="#">Hypervisor Profiles</a>	<a href="#">Network Sets</a>	<a href="#">Volume Templates</a>	<a href="#">Racks</a>
<a href="#">Reports</a>	<a href="#">Enclosure Groups</a>	<a href="#">Hypervisor Managers</a>	<a href="#">Logical Interconnect Groups</a>	<a href="#">Storage Pools</a>	<a href="#">Power Delivery Devices</a>
	<a href="#">Logical Enclosures</a>		<a href="#">Logical Interconnects</a>	<a href="#">Storage Systems</a>	<a href="#">Users and Groups</a>
	<a href="#">Enclosures</a>		<a href="#">Interconnects</a>	<a href="#">SANs</a>	
	<a href="#">Rack Managers</a>		<a href="#">Logical Switch Groups</a>	<a href="#">SAN Managers</a>	
	<a href="#">Server Hardware</a>		<a href="#">Logical Switches</a>		
	<a href="#">Server Hardware Types</a>		<a href="#">Switches</a>		

- To upload an SPP Bundle, click the **+Add Firmware Bundle** button

The screenshot shows the 'Firmware Bundles' list screen. The '+ Add Firmware Bundle' button is highlighted with a red arrow. The screen includes a search bar and a table header with columns for Name, Version, Size, and Type.

- On the Add Firmware Bundle window, click on the **Browse** button, and select the SPP ISO to upload.

The screenshot shows the 'Add Firmware Bundle' window. It has a central area for dragging files or selecting a file, with the text 'Drag and drop a file or select a file to upload.' Below this is a 'Browse' button, which is highlighted with a red arrow.

- Once selected, click the **Start Upload** button. You can also drag-and drop firmware bundles (SPPs) within Windows environments. You can navigate away from the Firmware Bundle screen to other areas within the UI, as the upload process is a background process within the browser.

The screenshot shows the 'Add Firmware Bundle' window with a file listed: '064794\_001.spp-2016.04.0-SPP20160402016\_03T20.0a' (3.74 GB). Below the file list is a 'Browse' button. At the bottom of the window is an 'OK' button, which is highlighted with a red arrow.

5. The SPP upload will begin. You can click the **Close** button in the lower right, as that will only close the dialog box and not cancel the upload.
6. From the Top-Level menu, select **Logical Enclosures**

The screenshot shows the OneView navigation pane. The 'Logical Enclosures' option under the 'Dashboard' section is highlighted with a red arrow. The navigation pane includes sections for GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES, each with various sub-options like 'Server Profiles', 'Hypervisor Cluster Profiles', etc.

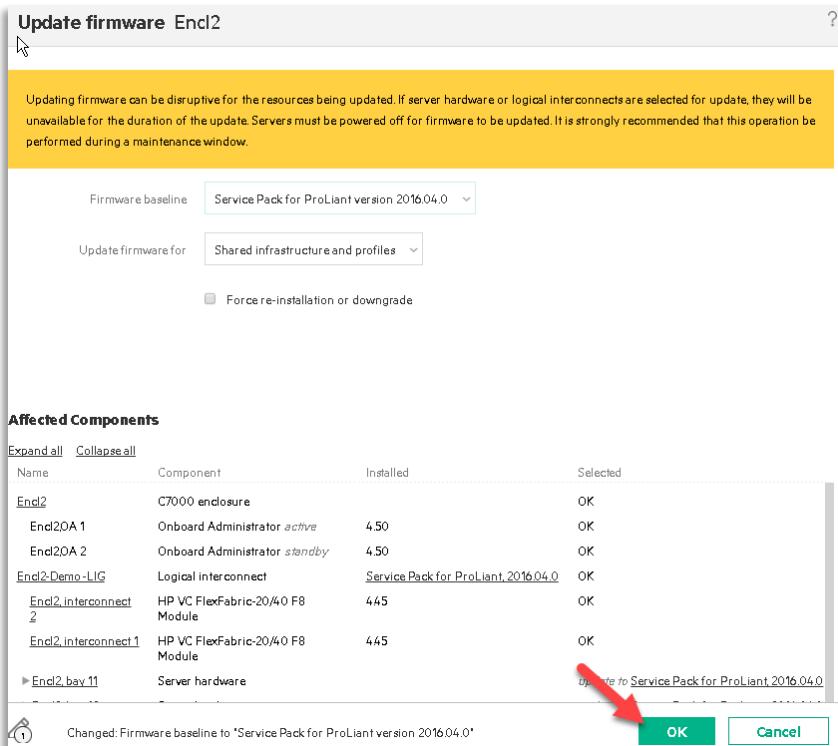
7. Select the correct enclosure from the navigation pane, then select **Update Firmware** from the actions menu.

The screenshot shows the 'Logical Enclosures' list view. An enclosure named 'Encl2' is selected. A context menu is open over the enclosure, with the 'Update firmware' option highlighted with a red arrow. Other options in the menu include 'Edit', 'Reapply configuration', and 'Create logical enclosure support dump'.

8. On the Update firmware screen select the correct **Firmware Baseline**.

The screenshot shows the 'Update firmware Encl2' dialog box. A warning message at the top states: "Updating firmware can be disruptive for the resources being updated. If server hardware or logical interconnects are selected for update, they will be unavailable for the duration of the update. Servers must be powered off for firmware to be updated. It is strongly recommended that this operation be performed during a maintenance window." Below the message, there are two options for selecting a firmware baseline: "Manage manually" (selected) and "HP Service Pack for ProLiant version 2015.10.0". A red arrow points to the second option. At the bottom of the dialog, there is a checkbox for "Force re-installation or downgrade".

9. Leave the default actions for the **Update firmware for Shared infrastructure and profiles**
10. Click **OK** to begin the firmware update.



11. Verify that the logical enclosure firmware update is complete

12. From the Top-Level Menu, select **Logical Interconnect**.

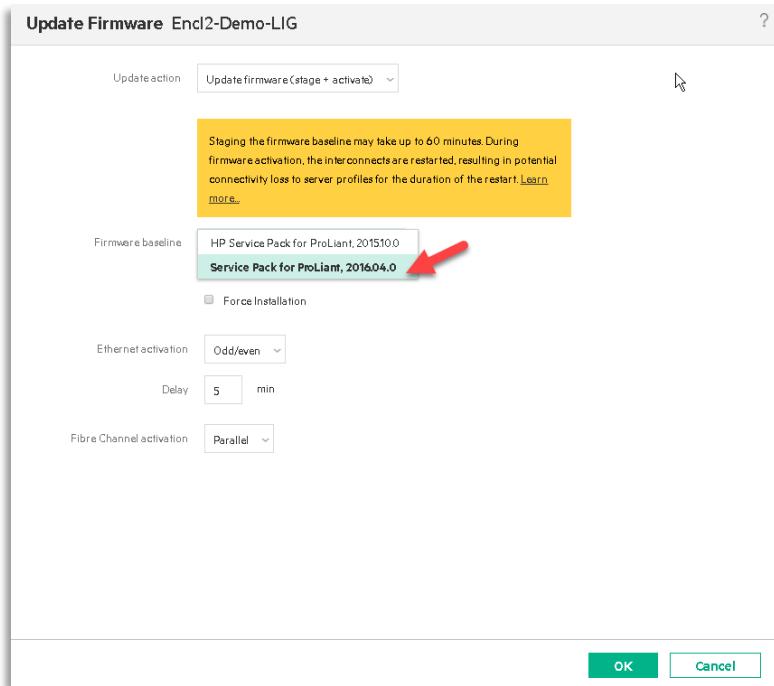
GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	SANs	Storage Systems
	Enclosures		Interconnects	SAN Managers	Unmanaged Devices
	Rack Managers		Logical Switch Groups		
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

13. Select the desired Logical Interconnect for the enclosure from the navigation pane

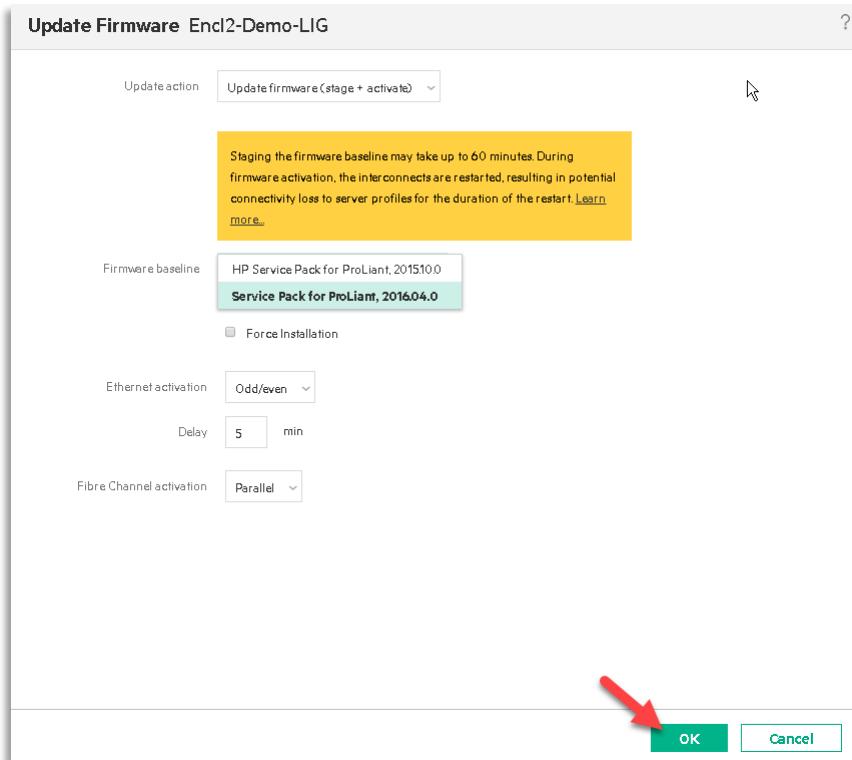
14. Select **Update Firmware** from the actions menu.

Logical Interconnects 2		All statuses v All types v All scopes v All labels v																																																																						
<b>Encl2-Demo-LIG</b>	Logical Interconnect																																																																							
Internal no networks	● SAN-A 1 network 2 uplink ports	● Uplink-1 7 networks 2 uplink ports	● SAN-B 1 network 2 uplink ports	● Uplink-1+B 7 networks 2 uplink ports																																																																				
<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Q1</td><td>Q2</td><td>Q3</td><td>Q4</td><td>Q1</td><td>Q2</td><td>Q3</td><td>Q4</td><td>Q1</td><td>Q2</td><td>Q3</td><td>Q4</td><td>Q1</td><td>Q2</td><td>Q3</td><td>Q4</td> </tr> <tr> <td colspan="16"><b>Encl2_interconnect_1</b> Expected: HP VC FlexFabric-2040 F8 Module Actual: HP VC FlexFabric-2040 F8 Module</td> </tr> <tr> <td colspan="16"><b>Encl2_interconnect_2</b> Expected: HP VC FlexFabric-2040 F8 Module Actual: HP VC FlexFabric-2040 F8 Module</td> </tr> <tr> <td>X1 X2 X3 X4 X5 X6 X7 X8 X9 X10</td> <td>X1 X2 X3 X4 X5 X6 X7 X8 X9 X10</td> <td>X1 X2 X3 X4 X5 X6 X7 X8 X9 X10</td> <td>X1 X2 X3 X4 X5 X6 X7 X8 X9 X10</td> </tr> </table>					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Q1	Q2	Q3	Q4	<b>Encl2_interconnect_1</b> Expected: HP VC FlexFabric-2040 F8 Module Actual: HP VC FlexFabric-2040 F8 Module																<b>Encl2_interconnect_2</b> Expected: HP VC FlexFabric-2040 F8 Module Actual: HP VC FlexFabric-2040 F8 Module																X1 X2 X3 X4 X5 X6 X7 X8 X9 X10	X1 X2 X3 X4 X5 X6 X7 X8 X9 X10	X1 X2 X3 X4 X5 X6 X7 X8 X9 X10	X1 X2 X3 X4 X5 X6 X7 X8 X9 X10												
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																									
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4																																																									
<b>Encl2_interconnect_1</b> Expected: HP VC FlexFabric-2040 F8 Module Actual: HP VC FlexFabric-2040 F8 Module																																																																								
<b>Encl2_interconnect_2</b> Expected: HP VC FlexFabric-2040 F8 Module Actual: HP VC FlexFabric-2040 F8 Module																																																																								
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<b>Actions</b> v Edit Update firmware Redistribute logins Configure port monitoring Reapply configuration Download MAC table																																																																								

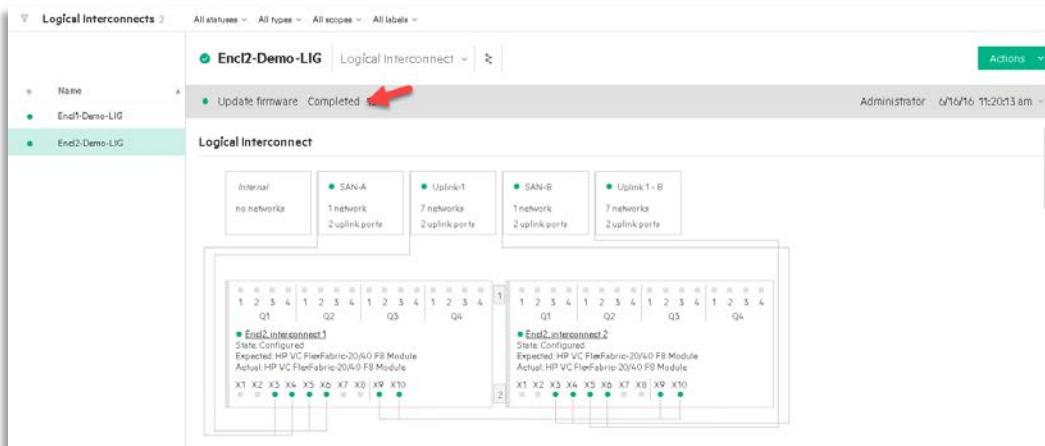
15. On the Logical Interconnect Update firmware screen select the option to **Update Firmware** option then select the correct **Firmware Baseline**.



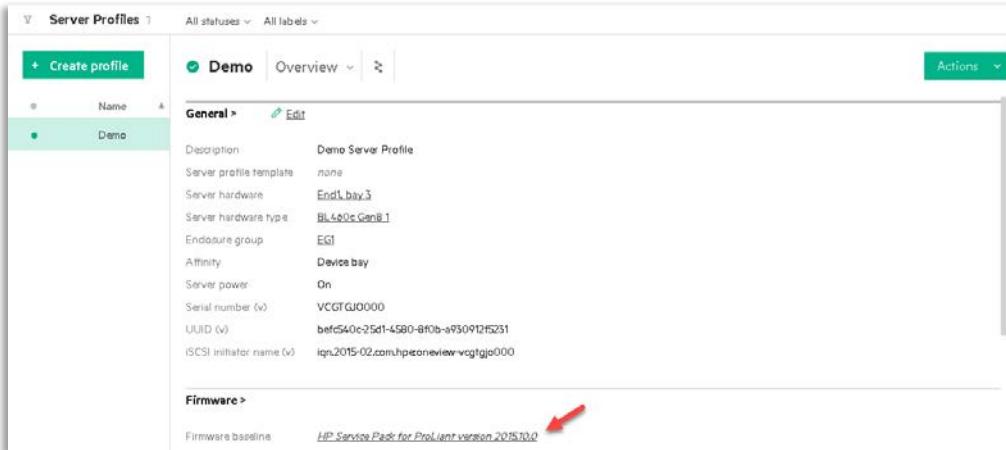
16. Click **OK** to apply the firmware.



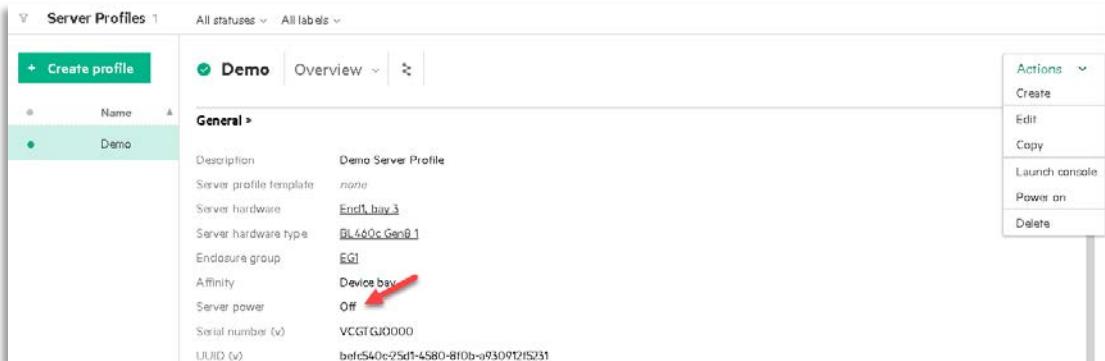
17. Verify that the Logical Interconnect firmware update is complete.



18. Next, navigate to **Server Profiles** from the top-level menu. Select the correct **Server Profile** from the navigation pane



19. Verify the **Server Power** is Off



20. Select **Edit** from the actions menu.

The screenshot shows the 'Server Profiles' page in HPE OneView. On the left, there's a list of profiles with a 'Create profile' button. In the center, the 'Demo' profile is selected, showing its details under 'General'. On the right, a context menu is open with options like 'Create', 'Edit', 'Copy', 'Launch console', 'Power on', and 'Delete'. A red arrow points to the 'Edit' option in the menu.

21. On the Edit Server Profile screen select the correct firmware baseline from the **Firmware Baseline** drop-down box to be used for this Server Profile.

The screenshot shows the 'Edit Demo' dialog box. Under the 'General' tab, fields include Name (Demo), Description (Demo Server Profile), Server profile template (none), Server hardware (End1, bay 3), Server hardware type (BL460c Gen8 1), Enclosure group (EG1), and Affinity (Device bay). Under the 'Firmware' tab, the 'Firmware baseline' dropdown is set to 'managed manually'. Below it, 'HP Service Pack for ProLiant version 2015.10.0' is highlighted with a red arrow. Other options in the dropdown are 'Service Pack for ProLiant version 2016.04.0' and 'Tool'.

22. Click **OK** to apply the firmware.

The screenshot shows the 'Edit Demo' dialog box again. The 'General' tab fields remain the same. Under the 'Firmware' tab, the 'Firmware baseline' dropdown is now set to 'Service Pack for ProLiant version 2016.04.0'. Below it, the 'Installation Method' radio buttons are shown: 'Firmware and OS Drivers using HPE Smart Update Tool' (selected) and 'Firmware only using HPE Smart Update Tool'. At the bottom, a status message says 'Changed: Firmware baseline to "Service Pack for ProLiant version 2016.04.0"'. The 'OK' button is highlighted with a red arrow.

23. Verify that the firmware update on the Server Profile is complete

## Deleting a Service Pack for ProLiant (SPP) Bundle

- From the Top-Level Menu, select **Firmware Bundles**

The screenshot shows the HPE OneView interface with the 'Firmware Bundles' option highlighted in the sidebar. The main content area displays various categories under 'GENERAL', 'SERVERS', 'HYPERVERSORS', 'NETWORKING', 'STORAGE', and 'FACILITIES'. Under 'GENERAL', 'Firmware Bundles' is listed.

- Select the firmware bundle to be removed.

The screenshot shows the 'Firmware Bundles' list page. A specific entry, 'HP Service Pack for ProLiant, 2015.10.0', is selected, indicated by a green highlight. The right pane shows detailed information for this bundle, including its version, size, and type.

- From the actions menu select **Remove**.

The screenshot shows the 'Firmware Bundles' list page with the same selected entry. The 'Actions' dropdown menu is open, and the 'Remove' option is highlighted with a red arrow.

- From the Remove HPE Service Pack dialog box, select **Remove Bundle**

The screenshot shows the 'Remove HP Service Pack for ProLiant, 2015.10.0' dialog box. It asks if you want to remove the service pack. The 'Remove bundle' button is highlighted with a red arrow.

- Confirm that the firmware bundle was removed from the HPE OneView appliance

## Modifying Virtual ID Pools

HPE OneView has the ability to pool address ranges just like Virtual Connect Enterprise Manager does today. However, HPE OneView provides many more address ranges by using Locally Administered Addresses<sup>9</sup>, including Auto Generated pools that can greatly expand the pool capacity. By default, there are ~1 million ID's per MAC and WWN pools.

<sup>9</sup> [http://en.wikipedia.org/wiki/MAC\\_address](http://en.wikipedia.org/wiki/MAC_address), review Address Details section.

- From the Top-Level Menu, select **Settings**.

The screenshot shows the HPE OneView interface with the 'OneView' logo at the top left. Below it is a navigation bar with tabs: GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under each tab, there are several sub-options. A red arrow points to the 'Settings' link under the FACILITIES tab.

GENERAL	SERVERS	HYPERVISORS	NETWORKING	STORAGE	FACILITIES
<b>Dashboard</b>	Server Profiles	Hypervisor Cluster Profiles	Networks	Volumes	Data Centers
Activity	Server Profile Templates	Hypervisor Profiles	Network Sets	Volume Templates	Racks
Firmware Bundles	Enclosure Groups	Hypervisor Managers	Logical Interconnect Groups	Storage Pools	Power Delivery Devices
Reports	Logical Enclosures		Logical Interconnects	Storage Systems	Unmanaged Devices
	Enclosures		Interconnects	SANs	
	Rack Managers		Logical Switch Groups	SAN Managers	
	Server Hardware		Logical Switches		
	Server Hardware Types		Switches		

- On the Settings window, you will see a section called Addresses and Identifier. Click the heading for **Addresses and Identifiers**

The screenshot shows the 'Settings' window with various configuration sections. A red arrow points to the 'Addresses and Identifiers >' link in the bottom right corner of the main content area.

- Appliance >** Firmware: 3000-039723, Update appliance, Create support dump.
- Backup >** Frequency: netcfg, Last downloaded: none, backup created at: none, Current backup: none, created at: none. Includes a 'Create backup' button.
- Networking >** Host name: DMGhpel01, Appliance IP address: 172.16.50.85, Gateway address: 172.16.50.254, Primary DNS: 172.16.50.51.
- Time and Locale >** Time: 6/16/16 9:50:04 am (UTC -0500), Locale: English (United States).
- Proxy >** not set.
- Licenses >** HPE OneView, Advanced, Add.
- Security >** Directories: Local default, Alert email filters: Disabled, Filters: none.
- Scopes >** none, Create scope.
- Activity >**
- SNMP >**
- Addresses and Identifiers >** (highlighted with a red arrow)

- From the Actions Menu, select **Edit**

The screenshot shows the 'Addresses and Identifiers' page. At the top right, there is an 'Actions' dropdown menu with 'Edit' selected. The main content area displays two tables: 'IPv4 Subnets and Address Ranges' and 'MAC Addresses'.

**IPv4 Subnets and Address Ranges:**

Subnet ID	Subnet Mask	Gateway	Domain	DNS Servers	Associated Networks
No subnets have been defined					

**MAC Addresses:**

Type	Enabled	Start	End	Count	Allocated	Remaining
Generated	enabled	06E12AE00000	66E12AEFFFFF	1048576	24	1048552
		Total		1048576	24	1048552

- Select the **Add auto-generated** button to create a new range of addresses for the pool or add a **custom range**.

The screenshot shows the 'Edit Addresses and Identifiers' page in HPE OneView. It includes sections for 'IPv4 Subnets and Address Ranges' and 'MAC Addresses'. In the MAC Addresses section, there is a table with columns: Type, Enabled, Start, End, Count, Allocated, and Remaining. A red arrow points to the 'Start' column of the first row, which contains the value '6EE12AE0:00:00'. Below the table are buttons for 'Add auto-generated' and 'Add custom range'. At the bottom right of the MAC Addresses section are 'OK' and 'Cancel' buttons.

## Creating a Support Dump

As with any product, occasionally there will be a situation that will require you to engage support. HPE OneView provides a Support Dump option to help with this process. There are two Support Dump options, and each contain different information: The Appliance and Logical Interconnects.

- From the Top-Level menu, select **Settings**.

The screenshot shows the HPE OneView top-level navigation menu. It includes links for GENERAL, SERVERS, HYPERVISORS, NETWORKING, STORAGE, and FACILITIES. Under SERVERS, there are links for Dashboard, Activity, Firmware Bundles, Reports, and a sub-section for Server Profiles, Server Profile Templates, Enclosure Groups, Logical Enclosures, Rack Managers, Server Hardware, and Server Hardware Types. Under HYPERVISORS, there are links for Hypervisor Cluster Profiles, Hypervisor Profiles, Hypervisor Managers, and Logical Interconnects. Under NETWORKING, there are links for Networks, Network Sets, Logical Interconnect, Groups, Logical Interconnects, Interconnects, Logical Switch Groups, Logical Switches, and Switches. Under STORAGE, there are links for Volumes, Volume Templates, Storage Pools, Storage Systems, SANs, and SAN Managers. Under FACILITIES, there are links for Data Centers, Racks, Power Delivery Devices, and Unmanaged Devices. A red arrow points to the 'Settings' link under the SERVERS category.

- In the Appliance section, click **Create Support Dump**. It may take a minute or two to collect the Support Dump logs. The Support Dump may also be very large. This Support Dump collects information about the Appliance.

**Appliance >**

- Firmware: 3.00.00-0259942
- [Update appliance](#)
- [Create support dump](#) (highlighted with a red arrow)

**Backup >**

- Frequency: not set
- Last downloaded backup created at: none
- Current backup created at: none
- [Create backup](#)

**Networking >**

- Host name: dmgt-oneviewhpe.local
- Appliance IP address: 172.16.50.78
- Gateway address: 172.16.50.254
- Primary DNS: 172.16.50.51

**Time and Locale >**

- Time: 8/10/16 11:07:43 am (UTC -0500)
- Locale: English (United States)

**Proxy >**

- not set

**Licenses >**

- HPE OneView Advanced w/o iLO: 16 required (yellow)
- HPE OneView Advanced: 20 available (green)
- [Add](#)

**Security >**

- Directories: Local default

**Notifications >**

- Alert email filters: Disabled

**Scopes >**

- none

**3. In the create support dump dialog, select Yes, Create**

**Create Support Dump**

Creating a support dump may take a few minutes after which file download will begin automatically. Meanwhile you can continue to use the UI normally.

Creating a support dump will delete any existing backup and cancel any ongoing backup operations.

Enable support dump encryption

**Do you want to create a support dump now?**

**Yes, create** (highlighted with a red arrow)    **Cancel**

**4. Wait while the support dump is created**

**Appliance**

Create support dump is in progress.

**Actions**

**Appliance**

**Actions**

**Create support dump** (highlighted with a red arrow)    [progress bar]

Administrator 8/10/16 11:12:48 am

Model	HPE OneView - Demo VM.
Firmware	
Version	3.00.00-0259942
Date	Aug 4, 2016

**5. The SDMP file will be downloaded via your browser.**

The screenshot shows the HPE OneView interface. In the top navigation bar, there is a search bar and a notifications icon with one notification. Below the navigation bar, the 'Appliance' tab is selected under 'Settings'. On the right, there is a green 'Actions' button. A task card at the top indicates a 'Create support dump' task was completed 1m41s ago by 'Administrator' on '8/10/16 11:12:48 am'. The main content area displays the appliance details: Model is 'HPE OneView - Demo VM', Firmware Version is '3.00.00-0259942', and Date is 'Aug 4, 2016'. At the bottom of the page, a download dialog box is open, showing a file named 'dmg.onedview.hpe...sdmp' with a size of '48.9/48.9 MB, 0 secs left'. A red arrow points to the close button of this dialog box.

6. Contact your HPE Support Representative and provide the information collected above.

## Appendix

### Appendix A: Sample HPN 5900CP FCF Switch Configuration

In this appendix, you will find a sample HPE 5900CP switch configuration setup as an FCoE FCF.

```
#  
version 7.1.045, Release 2307  
#  
sysname HPN5900CP_FCF1  
#  
irf mac-address persistent timer  
irf auto-update enable  
undo irf link-delay  
irf member 1 priority 1  
#  
lldp global enable  
#  
system-working-mode advance  
password-recovery enable  
#  
fcoe-mode fcf  
#  
vsan 1  
#  
vsan 100  
#  
vsan 200  
#  
vsan 300  
#  
vsan 400  
#  
vsan 500  
zone default-zone permit  
#  
vsan 600  
#  
vlan 1  
#  
vlan 100  
fcoe enable vsan 100  
#  
vlan 200  
fcoe enable vsan 200  
#  
vlan 300  
fcoe enable vsan 300  
#  
vlan 400  
fcoe enable vsan 400  
#  
vlan 500  
fcoe enable vsan 500  
#  
vlan 600  
fcoe enable vsan 600  
#  
qos map-table dot1p-lp  
import 0 export 0  
import 2 export 0
```

```
import 3 export 1
import 4 export 0
import 5 export 0
import 6 export 0
import 7 export 0
#
traffic classifier DCBX operator or
if-match acl 4000
#
traffic behavior DCBX
remark dot1p 3
#
qos policy DCBX
classifier DCBX behavior DCBX mode dcbx
#
stp global enable
#
interface NULL0
#
interface FortyGigE1/0/49
port link-mode bridge
#
interface FortyGigE1/0/50
port link-mode bridge
#
interface FortyGigE1/0/51
port link-mode bridge
#
interface FortyGigE1/0/52
port link-mode bridge
#
interface M-GigabitEthernet0/0/0
ip address 16.71.148.39 255.255.252.0
#
interface Ten-GigabitEthernet1/0/9
port link-mode bridge
description To vSAN100 Avon FCoE
port link-type trunk
port trunk permit vlan 1 100
priority-flow-control auto
priority-flow-control no-drop dot1p 3
lldp tlv-enable dot1-tlv dcbx
qos trust dot1p
qos wrr be group 1 byte-count 15
qos wrr af1 group 1 byte-count 15
qos wrr af2 group sp
qos wrr af3 group sp
qos wrr af4 group sp
qos wrr ef group sp
qos wrr cs6 group sp
qos wrr cs7 group sp
qos apply policy DCBX outbound
#
interface Ten-GigabitEthernet1/0/10
port link-mode bridge
description To vSAN100 Avon FCoE
port link-type trunk
port trunk permit vlan 1 100
priority-flow-control auto
priority-flow-control no-drop dot1p 3
lldp tlv-enable dot1-tlv dcbx
qos trust dot1p
```

```
qos wrr be group 1 byte-count 15
qos wrr af1 group 1 byte-count 15
qos wrr af2 group sp
qos wrr af3 group sp
qos wrr af4 group sp
qos wrr ef group sp
qos wrr cs6 group sp
qos wrr cs7 group sp
qos apply policy DCBX outbound
#
interface Ten-GigabitEthernet1/0/11
port link-mode bridge
description To vSAN300 Avon FCoE
port link-type trunk
port trunk permit vlan 1 300
priority-flow-control auto
priority-flow-control no-drop dot1p 3
lldp tlv-enable dot1-tlv dcbx
qos trust dot1p
qos wrr be group 1 byte-count 15
qos wrr af1 group 1 byte-count 15
qos wrr af2 group sp
qos wrr af3 group sp
qos wrr af4 group sp
qos wrr ef group sp
qos wrr cs6 group sp
qos wrr cs7 group sp
qos apply policy DCBX outbound
#
interface Ten-GigabitEthernet1/0/12
port link-mode bridge
description To vSAN300 Avon FCoE
port link-type trunk
port trunk permit vlan 1 300
priority-flow-control auto
priority-flow-control no-drop dot1p 3
lldp tlv-enable dot1-tlv dcbx
qos trust dot1p
qos wrr be group 1 byte-count 15
qos wrr af1 group 1 byte-count 15
qos wrr af2 group sp
qos wrr af3 group sp
qos wrr af4 group sp
qos wrr ef group sp
qos wrr cs6 group sp
qos wrr cs7 group sp
qos apply policy DCBX outbound
#
interface Ten-GigabitEthernet1/0/45
port link-mode bridge
#
interface Ten-GigabitEthernet1/0/46
port link-mode bridge
#
interface Ten-GigabitEthernet1/0/47
port link-mode bridge
#
interface Ten-GigabitEthernet1/0/48
port link-mode bridge
#
interface Fc1/0/1
#
```

```
interface Fc1/0/2
#
interface Fc1/0/3
#
interface Fc1/0/4
#
interface Fc1/0/5
#
interface Fc1/0/6
#
interface Fc1/0/7
#
interface Fc1/0/8
#
interface Fc1/0/13
#
interface Fc1/0/14
#
interface Fc1/0/15
port access vsan 100
#
interface Fc1/0/16
port access vsan 200
#
interface Fc1/0/17
#
interface Fc1/0/18
#
interface Fc1/0/19
#
interface Fc1/0/20
#
interface Fc1/0/21
#
interface Fc1/0/22
#
interface Fc1/0/23
#
interface Fc1/0/24
#
interface Fc1/0/25
#
interface Fc1/0/26
#
interface Fc1/0/27
#
interface Fc1/0/28
#
interface Fc1/0/29
port access vsan 200
#
interface Fc1/0/30
port access vsan 200
#
interface Fc1/0/31
port access vsan 100
#
interface Fc1/0/32
port access vsan 100
#
interface Fc1/0/33
#
```

```
interface Fc1/0/34
#
interface Fc1/0/35
#
interface Fc1/0/36
#
interface Fc1/0/37
port access vsan 300
#
interface Fc1/0/38
#
interface Fc1/0/39
port access vsan 500
#
interface Fc1/0/40
port access vsan 600
#
interface Fc1/0/41
#
interface Fc1/0/42
#
interface Fc1/0/43
#
interface Fc1/0/44
#
interface Vfc9
port trunk vsan 100
bind interface Ten-GigabitEthernet1/0/9
#
interface Vfc10
port trunk vsan 100
bind interface Ten-GigabitEthernet1/0/10
#
interface Vfc11
port trunk vsan 300
bind interface Ten-GigabitEthernet1/0/11
#
interface Vfc12
port trunk vsan 300
bind interface Ten-GigabitEthernet1/0/12
#
scheduler logfile size 16
#
line class aux
user-role network-admin
#
line class vty
user-role network-operator
#
line aux 0
user-role network-admin
#
line vty 0 15
authentication-mode scheme
user-role network-admin
user-role network-operator
idle-timeout 0 0
#
line vty 16 63
user-role network-operator
#
ip route-static 0.0.0.0 0 16.71.148.1
```

```
#  
snmp-agent  
snmp-agent local-engineid 800063A2807848593E27C600000001  
snmp-agent log all  
snmp-agent sys-info contact Gary  
snmp-agent sys-info location Gary's 5900 in Fort Collins  
snmp-agent sys-info version v3  
snmp-agent group v3 AuthPriv privacy write-view Viewdefault  
snmp-agent group v3 admin write-view All2View  
snmp-agent mib-view included All2View iso  
snmp-agent mib-view included AllView snmp  
snmp-agent usm-user v3 admin  
snmp-agent usm-user v3 user2 AuthPriv cipher authentication-mode sha  
$C$3$Ab59L60oVtFqqCqllMf4cWTexOXWODjBuRhAODHuCM8FH6FX3yM= privacy-mode aes128  
$C$3$PyZHaO3tBpxQyP8ZTclauuQJ6VgRYmTjxmwD8QSOn3ohLA==  
#  
ssh server enable  
#  
ntp-service source M-GigabitEthernet0/0/0  
ntp-service unicast-server 16.110.135.123  
#  
acl number 4000 name DCBX  
rule 0 permit type 8906 ffff  
rule 5 permit type 8914 ffff  
#  
user-profile gary  
#  
radius scheme system  
user-name-format without-domain  
#  
domain system  
#  
domain default enable system  
#  
role name level-0  
description Predefined level-0 role  
#  
role name level-1  
description Predefined level-1 role  
#  
role name level-2  
description Predefined level-2 role  
#  
role name level-3  
description Predefined level-3 role  
#  
role name level-4  
description Predefined level-4 role  
#  
role name level-5  
description Predefined level-5 role  
#  
role name level-6  
description Predefined level-6 role  
#  
role name level-7  
description Predefined level-7 role  
#  
role name level-8  
description Predefined level-8 role  
#  
role name level-9
```

```

description Predefined level-9 role
#
role name level-10
description Predefined level-10 role
#
role name level-11
description Predefined level-11 role
#
role name level-12
description Predefined level-12 role
#
role name level-13
description Predefined level-13 role
#
role name level-14
description Predefined level-14 role
#
user-group system
#
local-user root class manage
password hash
$H$6$Tax11rbZMQx6sAG8$3HM+5G1XxjJpd6GJaMYka+3lHi83NFqDMSCvvCZSdulELTBe2C6QqQtoerEP4JoAYw9yqtcu8oyhUSDWXvv+CQ==
service-type ftp
service-type ssh telnet http https
authorization-attribute user-role network-admin
authorization-attribute user-role network-operator
#
return

```

## Appendix B: Features from Previous HPE OneView releases

The following list outlines features introduced in previous releases:

<b>Scope Based Access Control</b>	Extends role-based access control by restricting a role (e.g. Server, Storage, or Network Admin) to operate only on a subset of resources managed by the appliance
<b>2 Factor Authentication</b>	Provides the ability to authenticate using smartcards. Smartcards supported include Common Access Card (CAC)/Personal Identity Verification (PIV) cards. The feature is integrated with OneView's LDAP directory support. The users supply a PIN and the certificate on the smartcard is matched/validated against their account in the directory.
<b>Certificate Management</b>	Certificate management improves the policies and procedures for managing certificate-based trust
<b>SNMP version 3 support</b>	Adding support for SNMPv3 protocol to enhance security of monitoring server hardware and interconnects. A simple server refresh operation automatically migrates server monitoring from SNMPv1 to SNMPv3
<b>Boot from SAN load balancing of Connections and Targets</b>	Enables boot from SAN (BFS) configuration to be specified in a server profile or server profile template such that connection primary/secondary assignment and storage system target port selection configuration will be load balanced uniformly over SANs and storage system targets resulting in full utilization of SAN and storage system infrastructure automatically
<b>Volume template and property locking integration with Server Profiles and Server Profile Templates</b>	Provides a consistent, unified storage volume management experience managing volumes across all of OneView. Volume templates, property locking and all of the volume settings can be managed in volume templates, volumes, server profiles and server profile templates.
<b>iSCSI CHAP credential regeneration</b>	Enables re-generation of iSCSI data path CHAP credentials across server & storage systems to support data center password rotation policies.
<b>Auto Discovery of non-bladed hardware (ML/DL/Apollo)</b>	Provides auto discovery of server resources based on IP range pinging
<b>Connections without assigned network</b>	Server Administrator can reserve a server 'port' in the server profile or server profile template and assign a network(s) in the future while server power is on
<b>Guided Setup Process</b>	Menu driven guided setup for the HPE OneView appliance
<b>Support for Gen10 Servers</b>	Standard and Advanced license support for BL460c Gen10 model servers

<b>Management mode for Apollo servers</b>	Standard and Advanced license support for DL360 Gen10 model servers Standard and Advanced license support for DL380 Gen10 model servers Standard and Advanced license support for DL560 Gen10 model servers Standard and Advanced license support for XL230k Gen10 model servers
<b>Management mode for ProLiant ML350 Gen9 servers</b>	Advanced license support for Apollo 2000 Gen9 server models Advanced license support for Apollo 4000 Gen9 server models Advanced license support for Apollo 6000 Gen9 server models
<b>Monitoring mode for SuperDomeX servers</b>	Advanced license support for ProLiant ML350 Gen9 servers
<b>Monitoring mode for ProLiant ML servers</b>	Standard license support for SuperDomeX Servers
<b>External firmware repository</b>	Standard license support for ProLiant ML 10, 10 v2 and 30 Gen9 servers
<b>Support for iLO Server Hostname</b>	Standard license support for ProLiant ML 110 Gen9 servers
<b>HPE StoreVirtual VSA Support</b>	Standard license support for ProLiant ML 150 Gen9 servers
<b>iSCSI Support</b>	External webserver managed by customer to host SPP's and hotfixes
<b>Scheduled firmware and OS Drivers update</b>	Displays iLO Server name value on the server page
<b>3PAR Thin dedupe support</b>	Profile driven automated volume provisioning with StoreVirtual
<b>Server FW Operator Role</b>	Boot and data volume access configuration
<b>Create template from profile</b>	Ability within the server profile and server profile template to schedule firmware and driver updates
<b>KVM management appliance support</b>	OneView will support 3PAR's Thin Deduplication feature that delivers inline, block-level deduplication without performance or capacity inefficiency tradeoffs
<b>RAID Configuration for DL Servers</b>	A new role within HPE OneView. This role will be able to update the SPP baseline in a server profile and reboot the box. This role is not able to make changes to other areas of profile such as BIOS, Boot Order or Connections.
<b>Live OneView Migration Support</b>	Create a server profile template from an existing server profile
<b>Monitoring mode for Apollo servers</b>	The OneView virtual management appliance will now support the KVM hypervisor
<b>RESTful integration with CloudSystem 10</b>	DL RAID support for embedded controllers
<b>Scope based resource control</b>	In-service Virtual Connect to HPE OneView migration of up to 4 enclosures in parallel
<b>Integrated Remote Support</b>	Apollo 2000 server models
<b>16GB Fibre Channel Support</b>	Apollo 4000 server models
<b>Support for 8 physical functions</b>	Apollo 6000 server models
<b>SPP Database size increased</b>	Automated cluster deployment via the RESTful API for CloudSystem 10 and Cloud Services Automation (CSA)
<b>New Hardware Support</b>	Scopes support enables logically groups resources
<b>HPE OneView Standard Licensing</b>	Remote support for c7000, Gen8+ BLs, DLs and Apollos to receive 24x7 monitoring, prefailure alerts, and automatic call logging.
<b>HPE OneView Advanced Licensing</b>	Support for the HPE Virtual Connect 16Gb 24-port Fibre Channel Module to accelerate migration to HPE OneView
	Support for 8 physical functions per NIC port on HPE FlexFabric 20Gb 650FLB/mezzanine adapters with HPE VC FlexFabric-20/40 F8 module
	SPP firmware repository size increased to 100 GB
	SPP firmware repository size increased to 100 GB
	ProLiant Gen9 Servers
	No Cost Software License – included with G6, G7, Gen8 & Gen9 purchase
	Hardware Fault Monitoring - Server disk, memory, processor, adapters, power and temperature
	Hardware Inventory – search, report and export
	Partner integrations
	Full Composable Infrastructure Profiles
	Right to Use License for Insight Control Server Provisioning for OS provisioning

<b>Automated Virtual Connect Migration</b>	Automated migration from a Virtual Connect Manager configuration to an HPE OneView managed configuration  Automated Validation and incompatibilities report of configuration  Simple “Push button” import
<b>System Health Monitoring</b>	Agentless, touch free monitoring  Auto SNMP Trap configuration and registration  Alert filtering and email notification
<b>Reporting</b>	Predefined list of reports  Reports are exportable to CSV or MS Excel  Reports are printable as a PDF file
<b>Customizable Dashboard</b>	Users can create, delete or customize searches and queries to the HPE OneView Dashboard
<b>Extended Control and Automation of 3PAR StoreServ</b>	Ephemeral Volumes for a hypervisor like experience with hardware  Import attached volumes without downtime  Flexible Zone Aliases automatically created based on server, array port and port groups
<b>HPE 5900CP Support</b>	Automated FC SAN zoning
<b>HPE Operations Analytics for HPE OneView</b>	Recreates history with beautiful visualizations  Self-calibrates via machine learning  Stores, indexes and understands operations data
<b>Automated Storage Provisioning</b>	Add/remove 3PAR storage systems and storage pools  Create/Delete 3PAR volumes on demand  Attach/export 3PAR volumes to Server Profiles
<b>Automated SAN Zoning</b>	Add/remove Brocade fabrics for automated zoning  Zoning is fully automated via Server Profile volume attachment  Quickly and easily establish connectivity from Virtual Connect to 3PAR via Direct Attach
<b>SAN Storage in Server Profiles</b>	Automatically attach private/shared standalone volumes to server profiles and zone the SAN fabric or Direct Attach
<b>DL Server Profile Support</b>	For supported rack mount servers, enable the user to apply a profile that specifies an SPP firmware bundle and configure BIOS policies.
<b>Native FC module support</b>	Manage Native FC connections in the server profile
<b>New Virtual Connect Module Support</b>	Support for the HPE FlexFabric 20Gb/40Gb F8 module
<b>New appliance Hypervisor support</b>	Provide more hypervisor choices by supporting the deployment of the HPE OneView Management Appliance on Microsoft Server 2008 and Server 2012 Hyper-V
<b>Localization</b>	Japanese and Chinese localizations
<b>Enclosure Visualization</b>	Fan and Power Supply visualization and support for c7000 enclosures
<b>Virtual Connect Networking</b>	Support for VLAN tunneling and untagged traffic  Easily create networks in bulk
<b>Partner Integrations</b>	HPE OneView for VMware vCenter with vCops and Log Insight  HPE OneView for Microsoft System Center with Hyper-V cluster provisioning  HPE OneView for RHEV
<b>VC-Style Active/Active Networking</b>	Configure Active/Active Uplink Sets for increased bandwidth utilization.
<b>Server Profile Connection Online Updates</b>	Update existing Network Connections within the Server Profile while the server is still powered on, both Network/Network Set assignment and bandwidth allocation.
<b>Local SmartArray Configuration</b>	Define the embedded SmartArray logical disk configuration as part of your Server Profile.
<b>Virtual Appliance</b>	Rapidly deploy appliance OVF with single setup screen
<b>Firmware Updates</b>	On appliance repository, search, and management network only. No need to inventory host OS.
<b>Enclosure Groups</b>	Configure a new enclosure just like the last one in seconds
<b>Logical Interconnect Groups</b>	VC module configuration with uplinks

<b>Server Hardware Types</b>	Inventory of your standardized hardware configurations
<b>Enhanced Server Profiles</b>	VC classic connectivity plus FW, BIOS, and boot configuration
<b>Network Sets</b>	Centralized VLAN configuration for Server Profile Network Connections
<b>Enabling 3PAR Flat SAN</b>	Dramatically reduce traditional FC SAN infrastructure with VC FlexFabric modules
<b>Onboard Administrator and iLO</b>	Reduce the number of steps to manage the Management Processors.
<b>Single Sign-On and Alert Management</b>	
<b>Manage DL Servers</b>	Add DL ProLiant rack mount servers for inventory and health
<b>Alert and Monitor Systems in the Datacenter</b>	iLO 4 traps automatically configured on import, no OS agents required
<b>Environmental Management</b>	Model and analyze power, cooling and location of your HPE IT equipment
<b>Secure Appliance</b>	Integrate the appliance into your Active Directory or OpenLDAP infrastructure
<b>Visualizing the Datacenter</b>	Visualize your data center's layout and rack power consumption
<b>Map View</b>	Understand how things are connected from the data center down to the device
<b>Smart Search</b>	Quickly find the information you are looking for. Need to locate an HPE OneView Managed Address? Type it in the Search Field to find the Server Profile it's assigned to.

## Appendix C: REST API

REST (Representational State Transfer) is a web service format that uses basic Create, Read, Update and Delete (CRUD) operations that are performed on resources using HTTP POST, GET, PUT and DELETE. To learn more about general REST concepts, see:

[http://en.wikipedia.org/wiki/Representational\\_state\\_transfer](http://en.wikipedia.org/wiki/Representational_state_transfer)

HPE OneView has a resource-oriented architecture that provides a uniform REST interface. Every resource has one Uniform Resource Identifier (URI) and represents a physical device or logical construct and may be manipulated using REST APIs. To view the list of resources, see [HPE Composable Infrastructure Controller REST API Reference](#) located in the Online Help of the appliance [[https://\[ip\]/help/cic/en/content/images/api/](https://[ip]/help/cic/en/content/images/api/)].

### Resource operations

Basic Create, Read, Update and Delete (CRUD) operations are performed on the appliance resources via the standard HTTP POST, GET, PUT and DELETE methods. RESTful interfaces are based on the World Wide Web standards, thus most modern web servers can support these operations without modification.

Restful APIs are stateless. The resource state is maintained by the resource manager and is reported as the resource representation. Any application state must be maintained by the client and it may manipulate the resource locally, but until a PUT or POST is made, the resource as known by the resource manager is not changed.

**Table 15.** REST HTTP Operations

Operation	HTTP Verb	Description
Create	POST URI <Payload = Resource data>	New resources are created using the POST operation and including relevant data in the payload. On Success the Resource URI is returned.
Read	GET URI	Returns the requested resource representation(s)
Update	PUT URI <Payload = Update data>	Update an existing resource using the update data.
Delete	DELETE URI	Delete the addressed resource

### URI format

All the appliance URIs point to resources and the client does not need to modify or create URIs. The URI for specific resource is static and follows this format: [https://\[appl\]/rest/{resource name}](https://[appl]/rest/{resource name}). The three parts are described below.

**Table 16.** URI Format

<b>https://[appl]</b>	The appliance addresses.
<b>/rest</b>	Type of URI.
<b>{resource name}</b>	Name of the appliance resource such as server-profile.

### Data transfer format

The appliance resources support JSON (JavaScript Object Notation) as the standard for exchanging data using a REST API. If JSON is not specified in the REST API call, then the default is JSON.

To learn more about JSON, go to [www.json.org](http://www.json.org).

## Appendix D: Accessing the REST API with PowerShell

The HPE OneView PowerShell Library is available for download at <https://github.com/HewlettPackard/POSH-HPOneView>, both the source code and a pre-built installer. The library requires at least the Windows Management Framework 3.0 (aka PowerShell 3.0) to be installed, and the .Net 4.0 Client Framework. Windows Management Framework 4.0 (aka PowerShell 4.0) that ships with Windows 8.1/8.1 Update is supported. The HPE OneView POSH Library Installer will assist you with the installation of these two required components if not found on the system.

Please visit the HPE OneView Online Documentation page (<https://github.com/HewlettPackard/POSH-HPOneView/wiki>), or use the get-help PowerShell cmdlet, for all available CMDLETs and the associated help.

### Using PowerShell

#### Note

The following example assumes the HPE OneView POSH Library is installed with the available install package.

The HPE OneView PowerShell library is a self-contained module that you first need to import or add to your PowerShell Session Profile. After the module has been successfully imported, you must first execute `Connect-HPOVmgmt` in order to authenticate to the appliance. You can then execute other cmdlets to perform the desired action.

There are 5 primary CMDLETs to interact with the HPE OneView appliance:

- [Connect-HPOVmgmt](#)
- [Send-HPOVRequest](#)
- [New-HPOVResource](#)
- [Set-HPOVResource](#)
- [Remove-HPOVResource](#)

### Accessing the REST API with Python

Python comes with a few libraries that can complete REST requests like `httplib2` and `urllib2`, these libraries are rather difficult to use and require a lengthy learning curve. Another python library called "Requests" has solved the learning curve, cleaned up REST requests and made them very easy to use. For a full comparison take a look at <http://isbullsh.it/2012/06/Rest-api-in-python/>

This overview of using Python to create REST requests will feature the Requests library.

The full HPE OneView Python Library can be found at <https://github.com/HewlettPackard/python-ilorest-library>.

#### Requests

`Requests` (<http://docs.python-requests.org/en/latest/>) is an easy to use REST request Python library.

#### How to get Requests

To get requests follow the steps on the Requests website here: <http://docs.python-requests.org/en/latest/user/install/#install>

The best method would be to use pip (the python package manager) to install requests:

```
> pip install requests
```

### Creating and executing a request

To execute a request is very simple. First look at the following code:

```
uri = '/rest/login-sessions'
method = 'POST'
data = {
    'userName': username,
    'password': password,
}
headers = {
```

```

'Accept': 'application/json',
'Content-Type': 'application/json',
'Accept-Language': 'en_US',
}
url = 'https://' + hostname + uri
response = requests.request(method, url, data=json.dumps(data), headers=headers, verify=False)

```

A request is made up for 4 items:

- Method - HTTP Method (e.g. POST, PUT, GET, etc.)
- URL - URL for the new Request object.
- Body (or data) - Any data we want to pass in
- Headers - HTTP headers, including request type and authentication key

#### **Example: Logging In**

Below is a fully working example of using Python + Requests to login to an appliance and collect the session ID:

```

#!/usr/bin/env python
# © Copyright 2013 Hewlett-Packard Development Company, L.P.

import json
import requests


def main(hostname, username, password):

    uri = '/rest/login-sessions'
    method = 'POST'
    data = {
        'userName': username,
        'password': password,
    }
    headers = {
        'Accept': 'application/json',
        'Content-Type': 'application/json',
        'Accept-Language': 'en_US',
    }

    url = 'https://' + hostname + uri
    response = requests.request(method, url, data=json.dumps(data), headers=headers, verify=False)

    if response.status_code == 200:
        print (response.json()['sessionID'])
    else:
        print (response.json()['errorCode'] + ':' + response.json()['message'])

if __name__ == '__main__':

    hostname = 'host.domain.com'
    username = 'administrator'
    password = 'password'

    main(hostname, username, password)

```

## Additional Resources

### HPE Enterprise Information Library - HPE OneView

- HPE OneView Online Help
- HPE OneView Release Notes
- HPE OneView Support Matrix
- HPE OneView Installation Guide
- HPE OneView User Guide
- HPE OneView REST API Reference
- HPE OneView Firmware Management White Paper
- Introduction to HPE OneView concepts for HPE Virtual Connect Customers
- Transitioning a Virtual Connect Configuration to HPE OneView

### <http://www.hpe.com/info/VirtualConnect>

- Virtual Connect Command Line User Guide
- Virtual Connect Enterprise Manager User Guide
- Virtual Connect Enterprise Manager Command Line User Guide

### <http://www.hpe.com/info/oneviewcommunity>

- HPE OneView Community Forums

### <https://github.com/HewlettPackard/POSH-HPOneView>

- HPE OneView PowerShell Library

### <https://github.com/HewlettPackard/python-ilorest-library>

- HPE OneView Python Library

Learn more at

### <http://www.hpe.com/info/OneView>



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c05270583, June 2018