



Hewlett Packard
Enterprise

HP OneView 2.0 Support Matrix

Abstract

This document lists the hardware, firmware, and software requirements for installing and using HP OneView.

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1	October 2015	2.0	Initial publication
2	August 2016	2.0	Added ESXi 6.0 update 2 support. Updated minimum supported cisco nexus switch versions. Added a note about FIPS and AES/3DES features in iLO.

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1 Appliance requirements

1.1 Appliance VM and host requirements

HP OneView is a virtual appliance running on the following supported hypervisor hosts.

Table 1 Supported hypervisors and versions

Hypervisor	Version
VMware vSphere ESXi	<ul style="list-style-type: none">• 5.0• 5.0 update 1• 5.0 update 2• 5.0 update 3• 5.1• 5.1 update 1• 5.1 update 2• 5.1 update 3• 5.5• 5.5 update 1• 5.5 update 2• 5.5 update 3• 6.0• 6.0 update 1• 6.0 update 2 <p>NOTE: VMware V6.x Fault Tolerance is not supported</p>
Microsoft Hyper-V	<p>Hyper-V is supported on the following Microsoft Windows platforms with the Hyper-V role installed:</p> <ul style="list-style-type: none">• Windows Server 2012• Windows Server 2012 R2• Windows Hyper-V Server 2012• Windows Hyper-V Server 2012 R2

The appliance virtual machine (VM) must run on a VM host with ProLiant G7–class CPUs or later. The appliance VM requires the following:

- Two 2 GHz or greater virtual CPUs.
- 10 GB of memory dedicated to the appliance.
- 170 GB of thick-provisioned disk space.
- A connection to the management LAN.

NOTE: HP recommends that you have separate networks for management and data.

In addition, the clock on the VM host must be set to the correct time. If NTP (Network Time Protocol) is not used to synchronize the time on the VM host, HP recommends configuring the appliance to use NTP directly.

An HP OneView VM host must have the following requirements:

- At least two ProLiant Gen 7-class CPUs of at least 2.0 GHz.
- Ensure the hypervisor host meets the minimum system requirements:
 - **[Minimum system requirements for installing ESXi/ESX \(1003661\)](#)**, VMware Knowledge Base
 - **[Review Prerequisites for Installation](#)** (Hyper-V Server 2012, Hyper-V Server 2012 R2), Microsoft TechNet
 - **[Install Hyper-V and Configure a Virtual Machine](#)** (Windows Server 2012), Microsoft Windows Server
- For power management options under BIOS settings:
 - Set HP Power Regulator to HP Static High Performance Mode.
 - Set Power Profile to Maximum Performance.

1.1.1 Where to deploy the virtual machine

You can deploy HP OneView on any ProLiant hardware that meets the requirements in “[Appliance VM and host requirements](#)” (page 5). Specific restrictions apply to hardware that is managed or monitored by HP OneView.

You can deploy HP OneView to a hypervisor in the following hardware environments:

- [Rack-mount ProLiant DL](#)
- [BladeSystem](#)

Restrictions apply to both environments if you want to use HP OneView to manage or monitor the hypervisor host on which it is executing. The key issue is that a OneView appliance, as a virtual machine guest has not knowledge of the virtual machine host on which it is executing. If you use OneView to manage or monitor the virtual machine host environment on which it is running refrain from performing operations on the host that inadvertently would bring down the virtual appliance. Examples include using OneView to power off the VM host on which it is running or performing server profile operations on the host on which OneView is running.

-
- ❗ **IMPORTANT:** HP recommends that you deploy the HP OneView virtual appliance on a hypervisor environment that is dedicated to management functions and separate from the production hypervisor environment.
-

1.1.1.1 Deploying in a DL-based hypervisor environment

Deploying OneView using a DL-based hypervisor configuration environment is typically the simplest choice. Deploying to a hypervisor cluster configuration for high availability (HA) is the best practice.

In a non-high availability (HA) configuration with a single DL server hypervisor host, adding the DL server hypervisor host into OneView as a managed host is not supported. Add the host in monitored mode.

In monitored mode, do not power off the hypervisor host from OneView since that would inadvertently power off the virtual appliance. In an HA configuration, where the OneView virtual appliance can be migrated between hosts, the above restriction still applies but can be worked around using VM migration. Note that this approach is error prone. The virtual appliance cannot detect the hypervisor host on which it is running and therefore cannot warn the user regarding an unsupported operation.

The best practice is to use OneView to monitor, not manage, the DL hypervisor hosts in the cluster. In monitored mode, before powering off a host using OneView, refrain from the OneView

appliance executing on that VM host. If it is, the OneView appliance needs to be migrated to a different cluster member.

If the DL hypervisor hosts are added into OneView in managed mode, the following additional restrictions apply:

- You cannot apply or edit the server profile for the hypervisor host on which the OneView virtual appliance is currently executing.
- You would have to make sure to migrate the appliance to a different host in the cluster before applying the server profile.

1.1.1.2 Deploying in a BladeSystem hypervisor environment

A BladeSystem configuration has the same restrictions as DL servers above and adds the additional considerations of server profile connection management for managed enclosures.

For BladeSystems, the server profile encapsulates all the network connectivity for the blade server and works in conjunction with the interconnect modules in the enclosure.

For a single enclosure, non-HA hypervisor BladeSystem environment, when deploying OneView on ESXi hosts in the enclosure, the best practice is to monitor but not manage the enclosure. The same restrictions above still apply. Do not power off the VM host where the OneView appliance is currently executing.

For a single enclosure or multi-enclosure environment where the enclosures are added to OneView in managed mode, the enclosure must include non-VC interconnect modules. The storage and network connectivity for the hypervisor hosts supporting the OneView virtual appliance must be restricted to using these non-VC interconnect modules. When performing server profile operations and power operations, refrains from having OneView execute on the specific host where those operations are being performed.

1.1.2 Planning for high availability

To use HP OneView in an HA (high availability) configuration, see the hypervisor documentation for specific requirements.

VMware vSphere ESXi <http://www.vmware.com/products/datacenter-virtualization/vsphere/high-availability.html>

Microsoft Hyper-V <http://technet.microsoft.com/en-us/library/cc753787.aspx>

1.2 Firmware requirements

This section describes the firmware requirements for devices you plan to manage with HP OneView.

To add a device to the appliance and actively manage, the device must meet the minimum firmware requirements described in section “[Minimum firmware requirements for managed and monitored devices](#)” (page 8).

NOTE: Firmware for monitored devices is managed outside of HP OneView.

1.2.1 HP Service Pack for ProLiant (SPP)

Download the latest HP Service Pack for ProLiant from <http://hp.com/gp/SPP> and then upload to the appliance.

1.2.2 Minimum firmware requirements for managed and monitored devices

Ensure that the devices you plan to manage have the following minimum firmware versions before you add them to the appliance.

When you add enclosures and servers as managed, you can specify a firmware baseline for the Onboard Administrator, interconnects, and iLO modules.

NOTE: HP OneView fully supports iLOs configured with **Enforce AES/3DES Encryption** enabled. HP OneView does not currently support iLO when configured with **FIPS mode** enabled.

Table 2 Minimum firmware requirements to add devices as managed

Device	Firmware version
HP Virtual Connect	3.15
HP BladeSystem Onboard Administrator	3.00
HP Integrated Lights-Out 4 for Gen8 servers	1.01
HP Integrated Lights-Out 4 for Gen9 servers	2.0
HP Integrated Lights-Out 3	1.20

Only managed devices will update automatically. Monitored devices need to be upgraded manually to match the below minimum firmware.

Table 3 Minimum Firmware for active management, monitoring, and migration

Device	Firmware version
HP Virtual Connect	4.10
HP BladeSystem Onboard Administrator	4.01
HP BladeSystem Onboard Administrator with all non-Virtual Connect interconnects	4.31
HP BladeSystem Onboard Administrator with a mixture of Virtual Connect and non-Virtual Connect	4.31
HP Integrated Lights-Out 4 for Gen8 servers	1.30
HP Integrated Lights-Out 4 for Gen9 servers	2.03
HP Integrated Lights-Out 3	1.61
HP Integrated Lights-Out 2	2.12
Intelligent Provisioning for Gen8 servers ¹	1.61 for Gen 8 AMD systems 1.20 for Gen 8 Intel systems
Intelligent Provisioning for Gen9 servers	2.0
HP SPP (Service Pack for ProLiant)	See "HP Service Pack for ProLiant (SPP)" (page 7)
HP Insight Management Agents (for G6 and G7 server monitoring)	9.20
Emulex Converged Network Adapters	4.2.401.6 or later

¹ For Intel based systems:

- When managing firmware baselines via the server profile, Intelligent Provisioning version 1.20 or later is required.
- When managing BIOS settings via the server profile, servers with iLO version 2.0 or later require Intelligent Provisioning version 1.20 or later.

To determine the IP version, browse to the iLO on the server, select `System Information` and then click the `Firmware` tab. The latest version of Intelligent Provisioning (IP) firmware is available for [download](#).

NOTE: HP OneView uses the SPP firmware bundle uploaded to the appliance to update the firmware automatically for these devices to the minimum version necessary for full management.

Firmware considerations for HP Virtual Connect modules

- If an interconnect has an earlier version of HP Virtual Connect firmware, HP recommends using the VCSU (Virtual Connect Support Utility) to update the firmware to version 3.15, at least, before adding the device to the appliance.
- HP OneView can manage and configure HP Virtual Connect Fibre Channel modules (using IPv6 addresses) that have a minimum firmware version of 4.10. Any module that has an earlier firmware version when it is added to the appliance is flagged for a firmware update. The flagged modules remain in an unmanaged state until you use **Interconnect+Actions+Update firmware** in the UI to update the Interconnect firmware.
- For more information on firmware and virtual connect see www.hp.com/info/oneview-vcfw.

1.3 Supported web browsers and versions

The following web browsers have been tested and qualified for use with HP OneView.

- Microsoft Internet Explorer Version 9, 10, and 11¹
- Mozilla Firefox Version 41
- Mozilla Firefox ESR (Extended Support Release) Version 38.x
- Google Chrome Version 45.x

ⓘ **IMPORTANT:** HP makes every effort to support newer versions of and updates to supported web browsers. However, newer versions do not always work as expected. There might be issues with the web browsers that preclude support with the current release of HP OneView, or there might be a gap between the time when the web browsers are released and the time when browser support is available in HP OneView. In these cases, HP will endeavor to support the newer browser versions in the next maintenance release or full release of HP OneView.

If you encounter a problem with a newer, untested version of a web browser, submit a report to your authorized support representative. In some cases, the short-term solution might be to revert to an earlier, supported web browser version.

If a newer web browser version cannot be supported with HP OneView, it will be documented as unsupported in the next edition of the documentation.

1.4 Screen resolution

Minimum resolution: 1024 x 768

Recommended resolution: 1280 x 1024 or greater

¹. Due to download file size limitations with Internet Explorer 9 and 10, please make sure to use Internet Explorer 11, Firefox, or Chrome when downloading large files from HP Software Depot.

2 Supported hardware

2.1 Managed HP ProLiant BL and WS server blades

The following server blade models can be added as managed:

Table 4 Managed HP ProLiant BL and WS server blades

Model	G7	Gen8	Gen9
BL420c		✓	
BL460c	✓	✓	✓
BL465c	✓	✓	
BL490c	✓		
BL620c	✓		
BL660c		✓	✓
BL685c	✓		
WS460c		✓	✓

2.2 Managed HP ProLiant DL rack mount servers

The following rack servers models can be added as managed:

Table 5 Managed HP ProLiant DL rack mount servers

Model	Gen8	Gen9
DL60		✓
DL80		✓
DL120		✓
DL160	✓	✓
DL180		✓
DL320e	✓	
DL320e v2	✓	
DL360		✓
DL360e	✓	
DL360p	✓	
DL380		✓
DL380e	✓	
DL380p	✓	
DL380z	✓	
DL385p	✓	
DL560	✓	✓
DL580	✓	✓

2.3 Server hardware management features

The appliance supports the following features on server hardware when added as managed.

Feature	Supported Server Hardware		
	HP ProLiant BL G7 ¹	HP ProLiant BL and WS Gen8 and HP ProLiant BL and WS Gen9	HP ProLiant DL Gen8 and HP ProLiant DL Gen9
Power on or power off the server	✓	✓	✓
View inventory data	✓	✓	✓
Monitor power, cooling, and utilization ²	✓	✓	✓
Monitor health and alerts	With manual installation and configuration of SNMP Agents NOTE: SNMP Agents are not available on ESXi 5.x and 6.x.	✓	✓
Launch iLO remote console	✓	✓	✓
SSO (single sign-on) to iLO web interface	✓	✓	✓
Automatic firmware upgrade (iLO) to minimum supported version when added to the appliance ³	✓	✓	✓
Rack visualization and editing	✓	✓	✓
Automatic discovery of server hardware type	✓	✓	✓
Server profile features			
BIOS settings		✓	✓ ⁴
Firmware		✓	✓
Connections to networks	✓	✓	
Boot order ⁵	✓	✓	✓ ⁶
Local storage ⁷		✓	
SAN storage	✓	✓	

¹ The appliance might report an unsupported status for some double-wide, double-dense ProLiant G7 server blade models, which means that the appliance cannot manage them.

² Not all servers support monitoring power, cooling, and utilization.

³ Automatic firmware upgrade occurs if an SPP is uploaded to the appliance. If the firmware is not upgraded, the hardware will be put in an *Unmanaged* state.

⁴ HP ProLiant DL580 Gen8 is not supported.

⁵ Due to a limitation in Gen9 BL server ROMs dated 8/27/2014 or earlier, it is not possible to set the primary boot device when the boot mode is set to UEFI or UEFI Optimized. If Manage boot order is selected, a warning will be displayed in the corresponding profile indicating this condition.

⁶ HP ProLiant DL580 Gen8 is not supported.

⁷ Only supported with the embedded array controller.

2.4 Monitored Server Hardware

You can add rack mount and blade servers in order to inventory and monitor the hardware. The following are supported as monitored:

- Any half or full height ProLiant BL G6 (with iLO2)
- HP ProLiant BL680c G7
- Any ProLiant DL G6 (with iLO2)
- Any ProLiant DL G7
- Any of the servers listed as managed can be monitored

2.5 Server hardware monitoring features

When you monitor server hardware, the appliance supports the following features.

Feature	Monitored Server Hardware		
	HP ProLiant BL and DL G6 (with iLO 2)	HP ProLiant BL and DL G7	HP ProLiant BL and DL Gen8 and Gen9
Power on or power off the server	✓	✓	✓
Monitor power, cooling, and utilization ¹		✓	✓
Monitor health and alerts	With manual installation and configuration of SNMP Agents NOTE: SNMP Agents are not available on ESXi 5.x and 6.x.	With manual installation and configuration of SNMP Agents NOTE: SNMP Agents are not available on ESXi 5.x and 6.x.	✓
Launch iLO remote console		✓	✓
SSO (single sign-on) to iLO web interface		✓	✓
Automatic discovery of server hardware type		✓ ²	✓

¹ Not all servers support monitoring power, cooling, and utilization.

² HP ProLiant DL G7 servers do not have discovery of server hardware type.

2.6 HP BladeSystem c7000 enclosures

The following enclosures can be added as managed or monitored:

- HP BladeSystem c7000 Enclosure
- HP BladeSystem c7000 Enclosure (RoHS compliant)
- HP BladeSystem c7000 Platinum Enclosure (Platinum)

For more information about HP BladeSystem c7000 enclosures, see <http://www.hp.com/go/bladeSystem>.

NOTE: HP BladeSystem c3000 enclosures are not supported.

2.7 Managed storage

The following firmware versions are supported for the listed StorServ 7000, 8000, 10000 and 20000 family platforms.

- HP 3PAR
 - 3PAR OS 3.1.3 MU1
 - 3PAR OS 3.1.3 MU2
 - 3PAR OS 3.2.1
 - 3PAR OS 3.2.1 MU1
 - 3PAR OS 3.2.1 MU2
 - 3PAR OS 3.2.1 MU3
 - 3PAR OS 3.2.2 MU1

For more information see [**3PAR and OneView Compatibility table**](#).

2.8 SAN managers

- HP FlexFabric 5900CP-48XG-4QSFP+ Switch
- HP 5900AF-48XG-4QSFP+ Switch - JC772A
- HP FF 5930-32QSFP+ Switch

The switch firmware version required should be greater than HP Comware Software, Version 7.1.045, Release 2415. For the exact version supported please consult [**the switch support document**](#)

- Brocade Network Advisor (BNA) software — 12.1.4, 12.1.5, 12.1.6, 12.3.1, 12.3.3, 12.3.4, 12.4.1, and 12.4.2
- Cisco Nexus 5000 family — 6.0, 7.0, 7.1, 7.2
- Cisco MDS family — 6.2(1-11)

See [**FlexFabric Compatibility table**](#), [**Cisco switch Compatibility table**](#), and [**Brocade Network Advisor \(BNA\) Compatibility table**](#) for more information.

2.9 Networking LOM and mezzanine cards

The following adapters are supported. If an adapter is not listed below, it is in *unmanaged support*. Unmanaged support means that the adapter can exist in the server and function as-is, but it is not managed by HP OneView. The adapter might still be usable depending on the model and what it is connected to (for example, an interconnect module). The appliance reports the existence of the adapter on the **Server Hardware** or **Server Hardware Types** screens in the appliance UI.

2.9.1 Supported Mezzanine and LOM cards

Supported Mezzanine and LOM cards are listed below:

FlexFabric adapters

- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP FlexFabric 20Gb 2port 650M Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 20Gb 2 port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 10Gb Dual Port NC551i Converged Network Adapter
- HP FlexFabric 10Gb Dual Port NC553i Converged Network Adapter

Ethernet and Flex-10 Ethernet adapters

- HP Flex-10 10Gb 2-port 530M Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP NC532m Dual Port Flex-10 10GbE Multifunction BL-c Adapter
- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC550m 10Gb 2-port PCIe x8 Flex-10 Adapter
- HP NC552m 10Gb 2-Port Flex-10 Ethernet Adapter
- HP NC553m 10Gb 2-port FlexFabric Adapter
- HP NC551m Dual-Port FlexFabric 10Gb Converged Network Adapter

Fibre Channel adapters

- HP QMH2572 8GB Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter
- HP LPe1605 16Gb Fibre Channel Host Bus Adapter
- Emulex LPe1205-HP 8Gb Fibre Channel Host Bus Adapter

2.10 Interconnect modules

Table 6 Supported interconnect modules

Device	Full support	Monitored ¹	Unmanaged support ²
HP Virtual Connect FlexFabric–20/40 F8 Module	✓		
HP Virtual Connect FlexFabric 10Gb/24-Port Module	✓		
HP Virtual Connect Flex-10 10Gb Ethernet Module	✓		
HP Virtual Connect Flex-10/10D Module for HP BladeSystem C-class	✓		
HP Virtual Connect 8Gb 20-port Fibre Channel Module	✓		
HP Virtual Connect 8Gb 24-port Fibre Channel Module	✓		
HP Virtual Connect 16Gb 24-port Fibre Channel Module			✓
Cisco Fabric Extender for HP BladeSystem ³		✓	
All other HP and non-HP interconnect modules			✓

¹ Available for basic power and health monitoring

² Unmanaged support means that the device can exist in the enclosure and function as-is, but it is not managed by HP OneView.

³ Also known as the Cisco Nexus B22 Blade Fabric Extender for HP.

2.10.1 Interconnect requirements

For all interconnect modules

- Virtual Connect Interconnect Modules must be 4.10 or higher. For more information, see [“Minimum firmware requirements for managed and monitored devices” \(page 8\)](#).
- Interconnect modules in horizontal pairs (for example, Bay 1 and Bay 2 of an enclosure) must be the same model. The peer bay can also be unpopulated, but you lose horizontal redundancy

For HP Virtual Connect 8Gb 20-port Fibre Channel and HP Virtual Connect 8Gb 24-port Fibre Channel modules

- Interconnect modules are for Fabric attach only.
- Interconnect firmware version must be at or higher than the firmware version listed in [“Minimum firmware requirements for managed and monitored devices” \(page 8\)](#).
- Interconnect modules cannot be placed in bays 1 or 2.

For HP Virtual Connect FlexFabric–20/40 F8 modules

- Interconnect module requires 10 fans in an enclosure.
- Do not insert more than six HP Virtual Connect FlexFabric–20/40 F8 modules in one enclosure.
- If configured for 4x10G operation, a pluggable module with an attached splitter cable must be installed to multiplex the QSFP+ port into four SFP+ ports on the remote end.
- HP Virtual Connect FlexFabric-20/40 F8 modules are not supported in generation 1 HP BladeSystem c7000 enclosures.

FCoE is supported on these interconnects and corresponding ports

- HP Virtual Connect FlexFabric 10Gb/24-port Module ports X1-X4 only
- HP Virtual Connect Flex-10/10D Ethernet Module ports X1-X10
- HP Virtual Connect FlexFabric-20/40 F8 Module

2.11 Switches

The following switches are monitored. Monitoring means that the switch is available for basic power and health monitoring.

- Cisco Nexus 5548 Switch
Minimum supported NX-OS versions:
 - NX-OS 5.2(1)N1(4)
 - NX-OS 6.0(2)N2(4)
 - NX-OS 7.0(1)N1(1)
- Cisco Nexus 5596 Switch
Minimum supported NX-OS versions:
 - NX-OS 5.2(1)N1(4)
 - NX-OS 6.0(2)N2(4)
 - NX-OS 7.0(1)N1(1)
- Cisco Nexus 6001 Switch
Minimum supported NX-OS versions:
 - NX-OS 6.0(2)N1(4)
 - NX-OS 7.0(1)N1(1)
- Cisco Nexus 6004 Switch
Minimum supported NX-OS versions:
 - NX-OS 6.0(2)N1(4)
 - NX-OS 7.0(1)N1(1)

2.12 Adapter and HP Virtual Connect configurations

HP OneView supports network connectivity through the following adapter and HP Virtual Connect module configurations.

Table 7 Supported FLB/LOM/mezzanine adapter configurations

Configuration	FlexFabric Adapters	Flex-10 Adapters	Ethernet Adapters ¹
HP Virtual Connect FlexFabric 10Gb/24-port Module HP Virtual Connect FlexFabric-20/40 F8 Module	4 FlexNICs or 3 FlexNICs and 1 FlexHBA per physical port ²	4 FlexNICs per physical port (Ethernet only)	No connectivity
HP Virtual Connect Flex-10/10D Module HP Virtual Connect Flex-10 10Gb Module	4 FlexNICs per physical port (Ethernet only)		
Ethernet Interconnect (external manager)	2x physical ports ¹		

¹ Not managed by HP OneView. HP OneView retains the physical ports in their unconfigured, default state. You can obtain network connectivity using a standard Ethernet interconnect or Ethernet passthrough module in the adjacent IO bays of the enclosure.

² One of the four FlexNICs can be configured for storage functionality using FCoE (Fibre Channel over Ethernet). Ethernet is available on all four FlexNICs. HP OneView configures FlexNIC network connectivity using server profile connections, such as device type, network or VLAN settings, and bandwidth settings.

2.13 Racks and power

- HP Intelligent Power Distribution Units (Firmware version 1.4 and later)
- HP Intelligent Series Racks
- HP Location Discovery Services for Software and Firmware (HP ProLiant DL Gen8 rack mount servers and HP BladeSystem c7000 G3 enclosures only)

3 Configuration maximums

3.1 Allocated IDs

Table 8 Allocated ID configuration maximums

Resource	Maximum
MAC ranges	66,240
WWN ranges	15,360
Virtual SN (serial number) ranges	1,280

3.2 Appliance

Table 9 Appliance configuration maximums

Resource	Maximum
Maximum disk space for Firmware Bundles	12 GB (approximately 3 bundles)
Concurrent users	5

3.3 Connections

Table 10 Connection configuration maximums

Resource	Maximum
Connections per physical port (maximum FlexNICs)	4
Physical ports per server	6
Half-height server blades	6 ports (dual-port LOM card and 2 mezzanine cards)
Full-height server blades	10 ports (2 dual-port LOM cards and 3 mezzanine cards)
Connections per server (on average)	24
Reserved connections ¹	4,800
Deployed connections ²	61,440
Total number of connections	66,240

¹ Connection that has been created, but has not yet been associated with a specific interconnect downlink.

² Connection that has been assigned to a physical interconnect port, and possibly a sub-port (FlexNIC on the server).

3.4 Enclosures

Table 11 Enclosure configuration maximums

Resource	Maximum
Enclosures	40
Enclosure groups	40
Logical enclosures	40
Interconnects in all enclosures	240

3.5 Networking limits

Table 12 Networking limits configuration maximums

Resource	Maximum
Total number of network sets	1,000
Ethernet tagged networks per network set	162
Logical interconnect groups	240
Logical interconnects	240
Uplink sets per logical interconnect	144

3.6 Networks

Table 13 Network configuration maximums

Resource	Maximum
Tagged, Untagged, Tunneled, and FCoE networks defined	8,192
Provisioned Ethernet networks per Logical Interconnect	1,000
Native FC networks (including FCoE/FC bridged networks), that can be defined	255
Fibre Channel networks per interconnect	8
Fibre Channel networks per logical interconnect or enclosure	48
Total SNMP Trap destinations per logical interconnect of which up to 5 can be designated as Fibre channel.	25
Networks per logical interconnect or enclosure	1,048
Networks per physical downlink	162
Networks per uplink set	1,000
FCoE networks per uplink set or per interconnect	32
Maximum number of private networks	128

3.7 Power and facilities

Table 14 Power and facility configuration maximums

Resource	Maximum
Data centers	640
Racks	640
PDDs (power delivery devices)	82,016
Unmanaged devices	26,880
iPDUs	2,560
iPDU components (load segments and outlets)	76,800
Branch circuits	2,560
Breaker panels	64
Power feeds	32

3.8 Server hardware

Table 15 Server configuration maximums

Resource	Maximum
Servers per enclosure	16
Total number of servers ¹	640

¹ This can be any combination of supported HP ProLiant BL server blades and HP ProLiant DL rack mount servers.

3.9 Server profiles

Table 16 Server profile configuration maximums

Resource	Maximum
Unassigned server profiles	100
Assigned server profiles	640
Total number of server profiles	740

4 Support and other resources

The following topics provide information about HP Support as well as the other resources and documentation that are available to assist you in the use of HP OneView.

4.1 Gather information before contacting an authorized support representative

If you need to contact an authorized HP support representative, be sure to have the following information available:

- Your Service Agreement Identification Number (SAID), required for entitlement
- Software product name — HP OneView
- Hypervisor virtualization platform and version
- Messages generated by the appliance
- Other HP or third-party software in use
- A support dump if a message recommended that you create a support dump for analysis purposes

4.2 How to contact HP

- See the Contact HP Worldwide website to obtain contact information for any country:
<http://www.hp.com/go/assistance>
- See the contact information provided on the HP Support Center website:
<http://www.hp.com/go/hpsc>
- In the United States, call +1 800 334 5144 to contact HP by telephone. This service is available 24 hours a day, 7 days a week. For continuous quality improvement, conversations might be recorded or monitored. Say *OneView* when prompted for the product name.

4.3 Get connected to the HP OneView online user forum

The HP OneView interactive online forum enables you to share your experiences and pose and answer questions related to using HP OneView.

See <http://www.hp.com/go/oneviewcommunity> to join the discussion.

4.4 Software technical support and software updates

HP OneView software products include three years of 24 x 7 software technical support and update services, which provides access to technical assistance to resolve software implementation or operations problems.

With this service, you benefit from expedited problem resolution as well as proactive notification and delivery of software updates.

See <http://www.hp.com/go/hpsc> for more information.

4.4.1 Registering for software technical support

When you order HP OneView, you receive a license entitlement certificate by physical shipment or email, which you must redeem online in order to obtain the license activation key.

After redeeming your license certificate activation key, you are prompted to register for software technical support and update services. Licenses that are embedded in the hardware are automatically registered, and do not require you to redeem the entitlement certificate.

See <http://www.myhplicensing.hp.com/> for more information.

4.4.2 Using your software technical support and update service

Once registered, you receive a service contract in the mail containing the customer service phone number and your Service Agreement Identifier (SAID). You need the SAID when you phone for technical support.

4.4.3 Obtaining HP OneView software and firmware updates

See <http://www.hp.com/go/oneviewupdates> to obtain HP OneView software updates and product-specific firmware bundles.

4.4.4 Obtaining software and drivers for HP ProLiant products

See <http://welcome.hp.com/country/us/en/support.htm> for the latest software and drivers for your HP ProLiant products.

4.4.5 Warranty

HP will replace defective delivery media for a period of 90 days from the date of purchase. This warranty applies to all products found on the delivery media.

4.5 Related information

Use the information in this section to learn about HP OneView and related products.



4.5.1 Product bulletins and Quick Specs for all HP products

The HP product bulletin website <http://www.hp.com/go/productbulletin>, accessible from your desktop or mobile device, is a convenient central resource providing technical overviews and specifications for HP hardware and software products.

4.5.2 HP OneView documentation and websites

See the Enterprise Information Library at <http://www.hp.com/go/oneview/docs> to download the latest versions of the following HP OneView documentation:

- [***HP OneView Release Notes***](#)
- [***HP OneView Support Matrix***](#)
- [***HP OneView Installation Guide***](#)
- [***HP OneView User Guide***](#)
- *HP OneView REST API Reference*
- zip file of HP OneView user interface HTML help files
- zip file of HP OneView REST API HTML help files
- Technical white papers

HP OneView help	HP OneView websites
<p>To view help on the appliance, click  to open the Help sidebar. Links in the sidebar open help in a new browser window or tab:</p> <ul style="list-style-type: none">• Help on this page opens help for the current screen• Browse help opens the top of the help system where you decide which help topics you want to read about• Browse REST API help opens help for API scripting and reference information• Clicking  on a screen or dialog box opens context-sensitive help for that dialog box	<ul style="list-style-type: none">• Primary website: http://www.hp.com/go/oneview• Software updates: http://www.hp.com/go/oneviewupdates• User community forum: http://www.hp.com/go/oneviewcommunity• Videos: http://www.hp.com/go/oneviewdemos

NOTE: See the online help for instructions to enable users and developers to browse the HP OneView help and *HP OneView REST API Reference* on their local computers or a web server.

4.5.3 Enclosure, iLO, and server hardware documentation and websites

You can download the latest versions of hardware manuals from the HP Servers Information Library <http://www.hp.com/go/enterprise/docs>.

For more information about hardware products, see the following websites:

Enclosure and iLO websites	HP ProLiant server hardware websites
<ul style="list-style-type: none">HP BladeSystem enclosures: http://www.hp.com/go/bladeSystemHP Integrated Lights-Out : http://www.hp.com/go/ilo	<ul style="list-style-type: none">General information: http://www.hp.com/go/proliantBL series server blades: http://www.hp.com/go/bladesDL series rack mount servers: http://www8.hp.com/us/en/products/proliant-servers/index.html?facet=ProLiant-DL-Rack

4.5.4 HP 3PAR StoreServ Storage documentation and websites

You can download the latest versions of HP 3PAR StoreServ Storage manuals from the HP Storage Information Library <http://www.hp.com/go/storage/docs>.

For more information about HP 3PAR StoreServ Storage products, see <http://www.hp.com/go/storage>.

4.5.5 HP Virtual Connect documentation and websites

You can download the latest versions of HP Virtual Connect manuals from the HP Support Center.

Document type	HP Virtual Connect website
<ul style="list-style-type: none">HP Virtual Connect user guidesHP Virtual Connect command line references <p>See "Finding documents on the HP Support Center website" (page 23)</p>	http://www.hp.com/go/virtualconnect

4.5.6 Finding documents on the HP Support Center website

Follow these instructions to access technical manuals hosted on the HP Support Center.

1. Go to the HP Support Center website at <http://www.hp.com/go/hpsc>.
2. Under **Knowledge Base** in the left navigation pane, select **Manuals**.
3. Type a product name in the **Find an HP product by search** box (for example, Storage 3PAR or HP Virtual Connect) and click **Go**.
4. If more than one product name is returned in the results, select the product you want.
5. On the **Manuals** page for that product, select your **Language**.
6. Next, select the type of document you are looking for to narrow down the list of documents that are offered to you. For example, select getting started information, user guides, setup and installation guides, general reference information, or white papers.

If the list of documents is long, it might take a few seconds to load the page. You can use the sorting options in the table headings to sort the list of documents alphabetically by title or by publication date.

7. Select a document title to download to your local computer or to view online.

4.6 Submit documentation feedback

HP is committed to providing documentation that meets your needs. To help us improve our documentation, send your suggestions and comments to this email address:

docsfeedback@hp.com

For UI and REST API help

In your email message, include the section title where the content is located. Also include the product name, product version, help edition, and publication date located on the legal notices page.

For user guides and other manuals

In your email message, include the document title, edition, publication date, and document part number located on the front cover of the document as well as the section title and page number.