

Hitachi Ops Center API Configuration Manager

10.8.2

System Requirements

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Preface

This manual provides the system requirements associated with Hitachi Ops Center API Configuration Manager.

Intended audience

This manual is intended for system administrators who install and configure Hitachi Ops Center API Configuration Manager.

Product version

This document revision applies to Hitachi Ops Center API Configuration Manager version 10.8.2 or later.

Release notes

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

Document conventions

This document uses the following typographic conventions:

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

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

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

Icon	Label	Description
	Note	Calls attention to additional information.
	Tip	Provides helpful information, guidelines, or suggestions for performing tasks more effectively.
	Important	Highlights information that is essential to the completion of a task.

Icon	Label	Description
	Caution	Warns the user of adverse conditions and/or consequences (for example, disruptive operations, data loss, or a system crash).
	CAUTION	Warns the user of a hazardous situation that, if not avoided, could result in major or minor injury.
	WARNING	Warns the user of a hazardous situation which, if not avoided, could result in death or serious injury.

Accessing product documentation

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

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Thank you!

Chapter 1: General System Requirements

Verify that your environment meets the system requirements before beginning the installation process.

Port and firewall requirements

The following lists the port requirements for using Ops Center API Configuration Manager. If you are using a firewall, you might have to register a firewall exception manually depending on the environment. For details, see the Hitachi Ops Center API Configuration Manager REST API Reference Guide.

Source	Target	Ports
REST API clients	Management server	23450/tcp
		23451/tcp
Management server	Storage system (SVP)	443/tcp
		1099/tcp
		11099/tcp
		51099/tcp to 51355/tcp
	Storage system (GUM)	443/tcp
	Management server (same as the Source)	4369/tcp
		23452/tcp
		23453/tcp
		23455/tcp
		23459/tcp
Management server 35049/udp to 36048/udp	Storage system (SVP)	31001/udp
	Storage system (GUM)	31001/udp
		37001/udp

Source	Target	Ports
Management server 37001/udp to 38000/udp	Relay server	proxyPort/udp
Relay server proxyPort/udp	Management server	37001/udp to 38000/udp
Storage system (SVP)		23454/tcp
Storage system (SVP) 31001/udp		35049/udp to 36048/udp
Storage system (GUM)		23454/tcp
Storage system (GUM) 31001/udp 37001/udp		35049/udp to 36048/udp
Storage system (SVP) any/tcp	Storage system (SVP)	1099/tcp
		51099/tcp
		51100/tcp
	Storage system (GUM)	443/tcp
Storage system (SVP) 35049/udp to 36048/udp	Storage system (GUM)	31001/udp
		37001/udp
Storage system (GUM) 31001/udp 37001/udp	Storage system (SVP)	35049/udp to 36048/udp

Hardware and disk space requirements

The following are the hardware and disk space requirements for the management server.

Hardware

Item		Ops Center API Configuration Manager
CPU	Minimum	Dual-core processor
	Recommended	At least a quad-core processor

Item		Ops Center API Configuration Manager
Physical memory	Minimum	1 GB
	Recommended	4 GB or higher

The Hitachi Ops Center products cannot be installed on a disk that has a logical sector size of 4,096 bytes (4K native). If a disk that has a logical sector size of 4,096 bytes is used, change the logical sector size to 512 bytes, and then install.

Table 1 Disk space required for installation

Component directory	OS	Default installation folder	Ops Center API Configuration Manager
Ops Center API Configuration Manager installation folder	Windows	Program-Files\hitachi\ConfManager	11100 MB
	Linux	/opt/hitachi/ConfManager	11600 MB

Chapter 2: OS System Requirements

Verify that your OS environment meets the following requirements before beginning the installation process.

System requirements for installing on Windows

The following lists the server requirements for installing on Windows.

Supported operating systems



Note: Windows supports installations by using Remote Desktop/Terminal Client with Console connection session.

OS name	Edition	SP	Architecture
Windows 10	<ul style="list-style-type: none">ProEnterprise	No SP	x64
<ul style="list-style-type: none">Windows Server 2012Windows Server 2012 R2 <p>(Server core and Minimal Server Interface are not supported.)</p>	<ul style="list-style-type: none">StandardDatacenter	No SP	x64
<ul style="list-style-type: none">Windows Server 2016Windows Server 2019Windows Server 2022 <p>(Server core, Nano Server, and Azure Edition are not supported.)</p>	<ul style="list-style-type: none">StandardDatacenter	No SP	x64

Cluster software

All Windows server installations support WSFC cluster (Bundle version).

IPv6 support

All installations on Windows servers support IPv6.

Java Version (Windows)

All installations on Windows servers require Amazon Corretto 11.

System requirements for installing on Linux

The following lists the server requirements for installing on Linux.

Supported operating systems

- Red Hat Enterprise Linux 7-7.9 (x64)
After installing the default OS, the following packages are required:
 - glibc-2.17-55.el7.x86_64.rpm or later
 - net-tools-2.0-0.17.20131004git.el7.x86_64.rpm or later
 - openssl-server-2.0.0-5.el7.x86_64.rpm or later
 - perl-5.16.3-283.el7.x86_64.rpm or later
 - tcsh-6.18.01-7.el7.x86_64.rpm or later
- Red Hat Enterprise Linux 8.1, 8.2, 8.4 (x64)
- Oracle Linux 7.2-7.9 (x64)
After installing the default OS, the following packages are required:
 - glibc-2.17-55.el7.x86_64.rpm or later
 - net-tools-2.0-0.17.20131004git.el7.x86_64.rpm or later
 - openssl-server-2.0.0-5.el7.x86_64.rpm or later
 - perl-5.16.3-283.el7.x86_64.rpm or later
 - tcsh-6.18.01-7.el7.x86_64.rpm or later
- Oracle Linux 8.1, 8.2, 8.4 (x64)

Cluster software

None.

IPv6 support

The following versions of Red Hat Linux support IPv6:

- 7-7.9
- 8.1, 8.2, 8.4

The following versions of Oracle Linux support IPv6:

- 7.2-7.9
- 8.1, 8.2, 8.4



Note: You must evaluate the OS version before using it on a cluster or VMware environment.

Java Version

All installations on Linux servers require Amazon Corretto 11.

Virtualization support

Virtualization software

All Windows and Linux server installations support the following versions of VMware ESXi. There are no functional differences due to differing operating systems. Windows supports installations by using Remote Desktop/Terminal Client with Console connection session.

- 6.5, 6.5u1, 6.5u2, 6.5u3
- 6.7, 6.7u1, 6.7u2, 6.7u3
- 7.0, 7.0u3

The following Windows installations support the following versions of Hyper-V:

OS Name	OS Version	Virtualization Version
Windows Server 2012	▪ Standard	Windows Server 2012 Hyper-V
	▪ Datacenter	Windows Server 2012 R2 Hyper-V
Windows Server 2012 R2	▪ Standard	Windows Server 2012 R2 Hyper-V
	▪ Datacenter	
Windows Server 2016	▪ Standard	Windows Server 2012 R2 Hyper-V
	▪ Datacenter	
Windows Server 2019	▪ Standard	No support.
	▪ Datacenter	
Windows Server 2022	▪ Standard	No support.
	▪ Datacenter	

Cluster software

All Windows server installations support WSFC cluster (Bundle version).

Chapter 3: Prerequisite software

To use Ops Center API Configuration Manager to manage storage systems, you need storage system management tools and software. The following table lists the prerequisite software required to complete specific tasks for the following storage systems:

The following table lists the prerequisite software required to complete specific tasks for the following storage systems:

- VSP 5000 series
- VSP G1000, VSP G1500, VSP F1500
- Virtual Storage Platform
- VSP E series
- VSP Gx00 models
- VSP Fx00 models
- VSP N series

Function	Required software	Notes
To manage storage systems	Java API	
	SNMP API	
To add LUN and delete LUN	LUN Manager	
To shred the data on volumes	Volume Shredder	
To use functions for creating a LUSE or LDEV (CVS)	Open Volume Management	
To use the copy pair functionality	ShadowImage	
	TrueCopy	
	Universal Replicator	
	ShadowImage for Mainframe	Not required for the following: <ul style="list-style-type: none"> ▪ VSP Gx00 models ▪ VSP Fx00 models
	TrueCopy for Mainframe	
	Copy-on-Write Snapshot	

Function	Required software	Notes
	Universal Replicator for Mainframe	<ul style="list-style-type: none"> ▪ VSP N series ▪ VSP E series
	Thin Image	
	global-active device	
To use the virtual storage machine functionality	Resource Partition Manager	Required for the following only: <ul style="list-style-type: none"> ▪ VSP 5000 series ▪ VSP G1000, VSP G1500, VSP F1500
To use Element Manager or Storage Navigator	Storage Navigator or Storage Navigator Modular 2	
To use Universal Volume Manager	Universal Volume Manager	
To use cache logical partitioning (CLPR)	Virtual Partition Manager or Cache Partition Manager	
To use 3DC functionality	Disaster Recovery Extended	Not required for the following: <ul style="list-style-type: none"> ▪ VSP Gx00 models ▪ VSP Fx00 models ▪ VSP N series ▪ VSP E series
To use the Dynamic Provisioning functionality	Dynamic Provisioning	
To use the Dynamic Tiering functionality	Dynamic Tiering	

For all VSP systems: Before you run operations on a resource to which a virtual ID was added, you must complete data migration using the virtual ID.

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