Cisco UCS Director Compatibility Matrix, Release 6.6

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Compatibility Matrix

Revision History

Release	Date	Description
6.6	April 30, 2018	Created compatibility matrix for Cisco UCS Director, Release 6.6.
6.6	May 16, 2018	Updated Cisco ACI Controllers Certified and Supported versions
6.6	July 2, 2018	Updated Cisco ACI Controllers Certified and Supported Versions.
Cisco ACI Multi-Site Connector Pack release 6.6.0.1	July 2, 2018	Updated Cisco Application Centric Infrastructure Multi-Site Controllers Certified and Supported Versions.
Cisco NetApp ONTAP Connector Pack release 6.6.0.1	August 22, 2018	Updated NetApp FAS (Clustered Data ONTAP) and Netapp AFF (ALL Flash FAS ONTAP) certified versions.
Cisco EMC Unity Connector Pack release 6.6.0.1	August 22, 2018	Updated EMC Unity OS certified version.
6.6.1.0	October 11, 2018	Updated support for Cisco UCS Server Support, Cisco Firewall Support, Cisco ACI Support, Hypervisor Support and Hitachi Data Systems Support.

Overview

Cisco UCS Director represents the next generation of software for the management and orchestration of data center infrastructure.

Cisco UCS Director delivers unified management and orchestration for the industry's leading converged infrastructure solutions that are based on Cisco Unified Computing System (Cisco UCS) and Cisco Nexus. Cisco UCS Director extends the unification of compute, network, and storage layers through Cisco UCS to provide data center professionals with single pane-of-glass management and storage solution choice. Cisco UCS Director supports the industry's leading converged infrastructure solutions, including NetApp FlexPod™ and FlexPod Express, EMC VSPEX, EMC VPLEX, and VCE Vblock™.

Cisco UCS Director automates the provisioning of resource pools across physical, virtual and baremetal environments from a unified, centralized management console reducing time-to-value for both applications and end users. Cisco UCS Director delivers native automated monitoring, OS and software updates and resource utilization analysis to free up your IT staff from mundane maintenance tasks allowing them to focus on competitive innovation for your business.

This document provides information regarding the physical and virtual devices and software supported by Cisco UCS Director. The information has been segmented into different functional areas and is organized by vendor within each functional area. We do not support hardware or software versions that have reached end of support by their vendors. There could be a delay between when a hardware model or software version reaches its end of support and its subsequent removal from this document. Support for hardware models and software versions is based on the end of support date announced by the vendor.

Deprecation Announcement for Cisco UCS Invicta

The following Cisco UCS Invicta Series Storage accounts have been deprecated:

• Cisco UCS Invicta Appliance

• Cisco UCS Invicta Scaling System

You can no longer create a new Cisco UCS Invicta account. The *Cisco UCS Director Invicta Series Management Guide* will also no longer be updated.

Note For End-of-Life milestones and dates, see the End-of-Sale and End-of-Life Announcement for the Cisco UCS Invicta Series.

Supported Languages

Cisco UCS Director supports the following languages:

• English (United States)

• Japanese (Japan)

• Spanish (Latin America)

• French (France)

• Korean (Korea)

• Chinese (China)

• Russian (Russia)

Supported Git Repositories

Cisco UCS Director supports only GitHub (github.com or an enterprise GitHub instance). It does not support other Git hosting services such as BitBucket, GitLab, Perforce, or Codebase.

Virtualization Support

Cisco UCS Director enables the management and orchestration of multiple virtualization platforms.

Hypervisor and Management Support

VMware vSphere Versions

The following table outlines the versions of VMware vSphere that are supported by this release of Cisco UCS Director.

Note Ensure proper compatibility between VMware vSphere Hypervisor and VMware vSphere vCenter Server versions as listed in the VMware vSphere compatibility matrix.

All Cisco UCS Director functionality may not be available across all supported VMware software versions. Certain features may not be available in older versions of VMware software.

Software Components	Certified Version	Supported Versions	Limitations on Support for VMware Features in Cisco UCS Director
VMware vSphere Hypervisor (ESX/ESXi)	6.7.0		None
	6.5 Patch 02	6.5, Patch 02+	None
	6.0 Patch 06	6.0, Patch 06+	None
	5.5 Update 3h	5.5, Update 3h+	None
VMware vSphere vCenter Server	6.7.0 [1]	6.7 Update 01+	None
	6.5 Update 1e	6.5, Update 1e+	None
	6.0 Update 3d	6.0, Update 3d+	None
	5.5 Update 3g	5.5, Update 3g+	None
VMware Virtual SAN	6.6 Patch 2	6.6, Patch 2+	None
	6.2 Patch 6	6.2, Patch 6+	None
VMware Site Recovery Manager	6.1.2	6.1.2+, 6.0.x, 5.8.x, 5.5.x	

[1] Supported with Release 6.6(1.0) only

Microsoft Hyper-V Versions

The following table outlines the versions of Microsoft Hyper-V that are supported by this release of Cisco UCS Director.

Note Ensure proper compatibility between Microsoft Hyper-V and Microsoft System Center versions as listed in the Microsoft Hyper-V compatibility matrix.

All Cisco UCS Director functionality may not be available across all supported Microsoft Hyper-V software versions. Certain features may not be available in older versions of Microsoft software.

Software Components	Certified Versions	Supported Versions
Microsoft Hyper-V Hypervisor	2016	
	2012 R2	
Microsoft System Center Virtual Machine Manager (SCVMM)	2016 Rollup 4	2016 Rollup 4+
	2012 Rollup 14	2012 Rollup 14+

Note For integrations with Cisco Application Centric Infrastructure, you must use Windows 2012 R2, Rollup 9.

RedHat Enterprise Virtualization Versions

The following table outlines the versions of RedHat Enterprise Virtualization that are supported by this release of Cisco UCS Director.

Software Components	Certified Versions	Supported Versions
Red Hat Enterprise Virtualization Manager (RHEVM)	4.1.0.4-0.1.el7	4.1.xx
Red Hat Enterprise Virtualization Hypervisor (RedHat KVM)	4.1	4.1.x.x

Operating System Support

VMware vSphere Operating System Support

Cisco UCS Director supports all guest operating systems compatible with VMware vSphere. For a complete list of VMware vSphere compatible guest operating systems, see the VMware Compatibility Guide.

Microsoft Hyper-V Operating System Support

Cisco UCS Director supports all guest operating systems compatible with Microsoft Hyper-V. For a complete list of Microsoft Hyper-V compatible guest operating systems, see the following Microsoft Hyper-V documentation:

- Windows Server 2008, 2008 R2 and 2008 R2 SP1

- Windows Server 2012, Windows Server 2012 R2

- Windows Server 2016

RedHat Virtualization Operating System Support

Cisco UCS Director supports all guest operating systems supported by Red Hat Virtualization. See **SUPPORTED VIRTUAL MACHINE OPERATING SYSTEMS** in the Red Hat *Virtual Machine Management Guide*.

Bare Metal Operating System Support

Cisco UCS Director and Cisco UCS Director Bare Metal Agent support all types of Linux and Microsoft Windows operating systems in baremetal provisioning workflows. Certain operating systems are packaged out-of-the-box with Cisco UCS Director Bare Metal Agent. However, additional operating systems can be added as necessary.

The following table outlines the bare metal operating systems that are supported by this release of Cisco UCS Director.

Operating System	Versions	Legacy-BIOS	UEFI
CentOS	CentOS 6.x	√	
	CentOS 7.0	√	√
	CentOS7.1	√	√
	CentOS7.2	√	√
	CentOS7.3	√	
	CentOS7.4	√	√
VMware ESXi	ESXi 5.0	√	
	ESXi 5.1	√	
	ESXi 5.5	√	
	ESXi 6.0	√	√
	ESXi 6.5	√	√
VMware ESXi - vSAN	vSAN 6.0	√	
	vSAN 6.6	√	√

Operating System	Versions	Legacy-BIOS	UEFI
Microsoft Windows	Windows 2008 R2	√	
	Windows 2012	√	√
	Windows 2012 R2	√	√
	Windows 2016	√	√
Red Hat Enterprise Linux	RHEL 6.x	√	
	RHEL 7.0	√	√
	RHEL 7.1	√	√
	RHEL 7.2	√	√
	RHEL 7.3	√	
	RHEL 7.4	√	√
SUSE Linux	SUSE 11 SP3 on local disk	√	
	SUSE 12 and later on local disk	√	√

Third-Party Authentication Software Support

The following table outlines support for third party authentication software.

Software	Supported Versions
Microsoft Active Directory	Windows 2008 Windows 2012
OpenLDAP	slapd 2.4.23 (Feb 3 2014 19:11:35) $ mockbuild@c6b10.bsys.dev.centos.org:/builddir/build/BUILD/openldap-2.4.2 3/openldap-2.4.23/build-servers/servers/slapd

Server Support

Cisco UCS Director enables the management and orchestration of multiple server platforms from various server vendors. This support information is grouped by vendor.

Cisco Server Support

The following table outlines support for Cisco UCS servers and related hardware and software. Where a version includes an asterisk (*), all patches for that version are supported. For example, Release 3.0(1*) includes support for 3.0(1c), 3.0(1d) and so on.

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Note　All Cisco UCS Director functionality may not be available across all supported Cisco UCS software versions. Certain features may not be available in older versions of Cisco UCS software.

The following table shows Cisco UCS Director compatibility with Cisco UCS hardware and software. This table does not reflect the compatibility betweenCisco UCS hardware and software. For information regardingCisco UCS compatibility, see the Cisco UCS hardware and software interoperability matrices for the appropriate release.

Components	Supported Models	Certified Software	Supported Software
Cisco UCS Manager	Software All fabric interconnect, servers, and other hardware models supported by the version of Cisco UCS Manager (see the hardware and software interoperability matrices) .	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 4.0(1a) Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Release 3.2(3a)	Cisco UCS Infrastructure Bundle and Cisco UCS Manager Software Bundle, Releases: • 4.0(x) • 3.2(x) • 3.1(x) • 3.0(x) • 2.2(x)
Cisco UCS Central	Software	Cisco UCS Central , Release 2.0(1d)	Cisco UCS Central , Releases: • 2.0(x) • 1.5(x) • 1.4(x) • 1.3(x) • 1.2(x)
Cisco UCS C-Series Rack Servers (Standalone through Rack accounts)	All models supported by the firmware versions for Cisco IMC Supervisor, Release 2.2 (see the Cisco IMC Supervisor Release Notes, Release 2.2).		All software versions supported by Cisco IMC Supervisor (see the Cisco IMC Supervisor Release Notes, Release 2.2).

Components	Supported Models	Certified Software	Supported Software
Cisco 8-Socket C-Series Rack Mount Servers for SAP HANA	Cisco C880 M4		Firmware versions: • BA14099 • BA15013
Cisco UCS E-Series Servers (Standalone through Rack accounts)	All models supported by the firmware versions for Cisco IMC Supervisor, Release 2.2 (see the Cisco IMC Supervisor Release Notes, Release 2.2).		All software versions supported by Cisco IMC Supervisor (see the Cisco IMC Supervisor Release Notes, Release 2.2).

HP Server Support

The following table outlines support for HP servers and related management software.

Components	Supported Models	Supported Software
HP Servers with HP Integrated Lights-Out 2 (iLO2)	Any HP server model or platform that supports iLO2	iLO 2.29
HP Servers with HP Integrated Lights-Out 3 (iLO3)	Any HP server model or platform that supports iLO3	iLO 1.57
HP Servers with HP Integrated Lights-Out 4 (iLO4)	Any HP server model or platform that supports iLO4	iLO 1.01
HP Servers with HP Onboard Administrator (OA)	HP OA chassis with c7000 blade servers	HP OA 4.3 HP OA 4.22 HP OA 3.60

Dell Server Support

The following table outlines support for Dell servers and related hardware and software.

Note Cisco UCS Director leverages the IPMI interface on Dell servers for all management and orchestration capabilities across both blade and rack-mount form factors. Cisco UCS Director does not support any other Dell management interface as of this publication.

Components	Supported Models	Supported Software
Dell Servers with Intelligent Platform Management Interface (IPMI) 2.0	Any Dell server model that supports IPMI 2.0	IPMI 2.0

Network and Fabric Support

Cisco UCS Director enables the management and orchestration of multiple network and fabric platforms from various vendors. This support information is grouped by vendor.

Cisco Network and Fabric Support

The following table outlines support for Cisco network and fabric devices.

Certified models and software have been systematically tested by Cisco and are warranted to work with the listed component.

Supported models and software are fully supported by Cisco on the listed component even if not fully tested.

Note This support includes the Nexus Operating System (NX-OS) kickstart and system software images.

Nexus support currently includes the Layer 2 feature-set only. The Layer 3 feature-set is not supported at this time.

Components	Certified Models	Supported Models	Certified Software Version	Supported Software Version
Cisco IOS Devices	C2960S	C2960S Other devices that support the software version	IOS 12.2(55)SE5	IOS 12.2(55)SE5
Cisco Nexus 1000 Series Distributed Virtual Switch	Nexus 1000V for VMware vSphere		NX-OS, Release 5.2(1)SV3(3.15)	NX-OS, Releases: • 4.2(x)SVx(x) • 4.0(x)
	Nexus 1000V for Microsoft Hyper-V		5.2(1)SM3(1.1b)	
Cisco Nexus 3000 Series Data Center Switches	3132Q, 3172	30xx , 31xx, 32xx, 35xx	NX-OS, Release 7.0(3)I7(3)	NX-OS, Release 6.2(x)
Cisco Nexus 5000 Series Data Center Switches	5548UP, 5548P		NX-OS, Release 7.3(2)N1(1)	NX-OS, Releases: • 7.3(x) • 7.2(x) • 7.1(x) • 7.0(x)
		50xx		
	5596Q	559x		
	C5624Q, 5648Q, 5672UP, 5696Q, 56128P			

Components	Certified Models	Supported Models	Certified Software Version	Supported Software Version
Cisco Nexus 6000 Series Switches	6001	60xx	NX-OS, Release 7.3(2)N1(1)	NX-OS, Releases: • 8.1(x) • 7.3(x) • 7.2(x) • 7.0(x)
Cisco Nexus 7000 Series Data Center Switches (M-series I/O modules do not support Fabric Path and are not listed)	7004 7010	70xx 77xx	NX-OS, Release 8.2(1)	NX-OS, Releases: • 8.1(x) • 8.0(x) • 7.3(x) • 7.2(x) • 6.2(x)
Cisco Nexus 9000 Series Data Center Switches (standalone mode only)	93120, 93128 9332PQ 9372TX, 9372PX 9396PX, 9396TX 9508, 9504, C9516	931xx 92xx 93xx 937x	NX-OS, Release 7.0(3)I7(3)	NX-OS, Releases: • 7.0(3)Ix(x) • 6.1(x)Ix
Unified Fabric Automation	Data Center Network Manager	Data Center Network Manager	Release Versions: • 7.2 • 10.1	Release Versions: • 7.0(x) • 7.1(x) • 7.2(x) • 10.0(x) • 10.1(x)
Cisco MDS Data Center Fabric Switches	M9124, M9148, M9148S M9250i M9396S M9500, M9506, M9509, M9513 M9706, M9710	M91xx M92xx M97xx	8.2(1)(ED)	6.2(x), 7.3(x), 8.1(x)

Cisco Application Centric Infrastructure and Related Software Support

The following table outlines support for Cisco Application Centric Infrastructure (Cisco ACI) components.

Software	Certified Versions	Supported Versions
Cisco Application Centric Infrastructure Controllers	3.2(1m) 3.1(2m) 3.1(1i)	• 3.2(x) • 3.1.(x) • 3.0.(x) • 2.(x) • 1.(x)
Cisco Application Centric Infrastructure Multi-Site Controllers	1.2(1g)[2] 1.1(2b)	1.2(x)[3] 1.1(x)

[2] Supported with Cisco ACI Multi-Site Connector Pack release 6.6.0.1
[3] Supported with Cisco ACI Multi-Site Connector Pack release 6.6.0.1. For more information, see the Cisco UCS Director Release Notes for Cisco ACI Multi-Site connector pack, Release 6.6.x.x.

Support for Related Software with Cisco ACI

The following table outlines support for related software used with Cisco ACI.

Components	Supported Hardware Versions	Supported Software Versions	Supported Device Packages
Citrix NetScaler VPX		10.1 and later	Major Version: 1.0, Minor Version: 52.41 Major Version: 1.0, Minor Version: 10.1-129.52 Major Version 1.0, Minor Version 10.1-129.62 Major Version 10.5 Minor Version 52.1155
Citrix NetScaler SDX	8015	10.1 and later	Major Version: 1.0, Minor Version: 52.41 Major Version: 1.0, Minor Version: 10.1-129.52 Major Version 1.0, Minor Version 10.1-129.62 Major Version 10.5 Minor Version 56.22

Components	Supported Hardware Versions	Supported Software Versions	Supported Device Packages
Citrix NetScaler 1000V		10.1 and later	Major Version: 1.0, Minor Version: 52.41 Major Version: 1.0, Minor Version: 10.1-129.52 Major Version 1.0, Minor Version 10.1-129.62
Cisco ASAv		9.9.1	9.6(x) 9.5(x) 9.4(x) 9.3(x) 9.2(x)
Cisco ASA	5555 5585	9.9.1	9.6(x) 9.5(x) 9.4(x) 9.3(x) 9.2(x)

Support for Cisco Application Virtual Switch

Component	Certified Model	Certified Software Version	Supported Software Version
Cisco Application Virtual Switch	Cisco Application Virtual Switch for VMware vSphere	5.2(1)SV3(1.20)	5.2(1)SV3(x)

Brocade Network and Fabric Support

The following table outlines support for Brocade network and fabric devices.

Components	Certified Models	Supported Models	Certified Software	Supported Software
Brocade DCX Backbone	DCX-8510	DCX85xx	v7.3.1c	7.3.x v7.2.x
VDX Network & Fabric/Storage Switches	VDX6740	VDC67xx	v7.1.0	v7.1.x
Brocade Silkworm SAN Switches			FOS v6.3.0a	FOS6.x

F5 Network and Load Balancer Support

The following table outlines support for F5 network and load balancer devices.

Note   Remote user authentication is not supported for F5 Load Balancer with a version less than 12.0.0. To use remote authentication, you must have F5 Load Balancer 12.0.0(0.0.606) and follow the instructions provided by F5.

Certified Version - , Supported Version - Certified Models - , , Supported Models -

Components	Certified Models	Supported Models	Certified Software	Supported Software
F5 Load Balancer (physical device only)	Big-IP 2200	Big-IP VPR-B25xx	13.0.0	13.x
	Big-IP VPR-C2400		12.1.2	12.x
			11.6.1	11.x

Security and Firewall Support

Cisco UCS Director enables the management and orchestration of Cisco security and firewall platforms.

Cisco Security and Firewall Support

The following table outlines support for Cisco security and firewalls.

Components	Certified Models	Supported Models	Certified Software	Supported Software
Cisco ASA 5500 Series Firewall	5555, 5585	55xx	9.9.1	• 9.6(x) • 9.5(x) • 9.4(x) • 9.3(x) • 9.2(x)
Cisco ASA 5500-X Series Firewall	5555-X 5585-X	55xx-X	9.9.1	• 9.6(x) • 9.5(x) • 9.4(x) • 9.3(x) • 9.2(x)

Components	Certified Models	Supported Models	Certified Software	Supported Software
Cisco ASAv	Virtual		9.9.1	• 9.6(x) • 9.5(x) • 9.4(x) • 9.3(x) • 9.2(x)
Cisco Virtual Security Gateway			4.2(1)VSG2(1.1)	4.2.x
Cisco Prime Network Services Controller			3.4.1*	3.4.x

Storage Support

Cisco UCS Director enables the management and orchestration of multiple storage platforms from various vendors. This support information is grouped by vendor.

EMC Storage Support

The following table outlines support for EMC storage devices.

Components	Supported Models	Certified Software	Supported Software	Supported Management Interfaces
Symmetrix VMAX (block only)	VMAX 10K VMAX 20K VMAX 40K	Enginuity 5876.309.196 Symmetrix CLI (symcli) 8.3.0.22	Enginuity 5876.309.401 Symmetrix CLI (symcli) 8.4.0.9	Linux-based Solutions Enabler v7.5 Linux-based Solutions Enabler v7.6 Linux-based Solutions Enabler v8.0 Windows-based Solutions Enabler v 8.0 Linux-based Solutions Enabler 8.1.0.24 Linux-based Solutions Enabler 8.2.0.18 Linux-based Solutions Enabler 8.3.0.22 Windows-based Solutions Enabler 8.1.0.24 Windows-based Solutions Enabler 8.2.0.18 Windows-based Solutions Enabler 8.3.0.22 Linux-based Solutions Enabler 8.4.0.9 Windows-based Solutions Enabler 8.4.0.9

Components	Supported Models	Certified Software	Supported Software	Supported Management Interfaces
Symmetrix VMAX3	VMAX 100K VMAX 200K VMAX 400K	Enginuity 5977.1125.1125 Symmetrix CLI (symcli) 8.3.0.22	Symmetrix CLI (symcli) 8.4.0.9	Linux-based Solutions Enabler v8.0 Linux-based Solutions Enabler v8.1.0 Linux-based Solutions Enabler 8.1.0.24 Linux-based Solutions Enabler 8.2.0.18 Linux-based Solutions Enabler 8.3.0.22 Windows-based Solutions Enabler v8.0 Windows-based Solutions Enabler v8.1.0 Windows-based Solutions Enabler 8.1.0.24 Windows-based Solutions Enabler 8.2.0.18 Windows-based Solutions Enabler 8.3.0.22 Linux-based Solutions Enabler 8.4.0.9 Windows-based Solutions Enabler 8.4.0.9

Components	Supported Models	Certified Software	Supported Software	Supported Management Interfaces
VNX (File, Block, Unified)	VNX 5100 VNX 5500	File: DART 8.1.9.217 Block: Flare OS 05.33.009.5.218	File: DART 8.1.9.231 Block: Flare OS 05.33.009.5.231	Navisphere naviseccli Revision 7.33.9.1.55 (certified); Revision 7.33.9.1.84 (supported) NaviCLI installed on one of the following: • CentOS 6.4 • Windows 2008
	VNX 5700 VNX 7500	File: DART 8.1.9.217 Block: Flare OS 05.33.009.5.218	File: DART 8.1.9.231 Block: Flare OS 05.33.009.5.231	Navisphere naviseccli Revision 7.30.15.0.44 NaviCLI installed on one of the following: • CentOS 6.4 • Windows 2008
	VNX 5300	File: DART 8.1.9.217 Block: Flare OS 05.33.009.5.218	File: DART 8.1.9.231 Block: Flare OS 05.33.009.5.231	Navisphere naviseccli Revision 7.30.15.0.44 NaviCLI installed on one of the following: • CentOS 6.4 • Windows 2008

Components	Supported Models	Certified Software	Supported Software	Supported Management Interfaces
VNX2 (File, Block, Unified)	VNX 5200 VNX 5400 VNX 5600 VNX 5800 VNX 7600 VNX 8000	File: Operating Environment (OE),v8.1.9.217 Block: Flare OS 05.33.009.5.218	File: DART 8.1.9.231 Block: Flare OS 05.33.009.5.231	Navisphere naviseccli Revision 7.33.9.1.55 (certified) Navisphere naviseccli Revision 7.33.9.1.84 (supported) VM: CentOS 6.4 NaviCLI installed on one of the following: • CentOS 6.4 • Windows 2008
VPLEX	Local	6.0.1.07.00.44		
	Metro	6.0.1.07.00.44		
VNXe	VNXe-3200	3.1.5.8711957	3.1.8.9340299	
RecoverPoint	RecoverPoint EX	5.1.0.1		
	RecoverPoint Cluster	5.1.0.1		
Isilon	S200-2U-Dual-24GB-2x1GE-2x10GE SFP+-7373GB X200-2U-Single-6144MB-2x1GE-2x10GE SFP+-6144GB NL400-4U-Dual-12GB-4x1GE-36TB	7.2.1.5		
EMC Unity		UnityOS: 4.2.2.9632250 UnityOS: 4.3.1.1525703027[4]	UnityOS: 4.3.0.1522077968	
XtremIO	XIOS	4.0.15-20	4.0.25-27	
	XMS	6.0.1 build 30		

[4] Supported with Cisco EMC Unity Connector Pack Release 6.6.0.1

NetApp Storage Support

The following table outlines support for NetApp storage devices.

Note For NetApp Data-ONTAP 7-Mode, Cisco UCS Director can connect either directly to the storage controllers or it can leverage the NetApp OnCommand Unified Manager Core to proxy the management of each storage controller.

Components	Supported Models	Certified Versions	Supported Versions	Supported Management Interfaces
NetApp FAS (Data-ONTAP 7-Mode)	NetApp FAS (Data-ONTAP 7-Mode)	Data-ONTAP 8.2.5		Direct Data ONTAP Ether
NetApp FAS (Clustered Data ONTAP)	All FAS models supported by NetApp Clustered Data-ONTAP, except All Flash FAS	Data-ONTAP 9.3 Data-ONTAP 9.4[5]		NetApp Clustered Data ONTAP-Management Logical Interface (LIF)
NetApp OnCommand Unified Manager Core (7-Mode only)	Software	NetApp OnCommand Data Fabric Manager 4.0 NetApp OnCommand Unified Manager Core 5.0.2 (formerly named Data Fabric Manager)		
Netapp AFF (ALL Flash FAS ONTAP)	ALL Flash FAS	Data-ONTAP 9.3 Data-ONTAP 9.4[6]		
Virtual Storage Console	Plugin for VMware vCenter	4.2.1 6.0		

[5] Supported with Cisco NetApp ONTAP Connector Pack, Release 6.6.0.1
[6] Supported with Cisco NetApp ONTAP Connector Pack, Release 6.6.0.1

IBM Storwize Storage Support

The following table outlines support for IBM Storwize storage devices:

Components	Certified Versions	Supported Versions	Supported Management Interfaces
IBM Storwize V5000	7.8.1.5		SSH (Secure Shell)
IBM Storwize V7000 Unified	File: 1.6.1.0-44 Block: 7.6.0.4 (build 122.23.1602250020000)		SSH (Secure Shell)
IBM Storwize V7000	7.6.0.4 (build 122.23.1602250020000)		SSH (Secure Shell)
IBM Storwize V9000	7.8.0.2 (build 133.17.1701251545000)	8.1.2.0	SSH (Secure Shell)
IBM SAN Volume Controller	7.8.0.2 (build 133.17.1701251545000)	8.1.2.0	SSH (Secure Shell)

Hyperconverged Storage Support

The following table outlines support for hyperconverged storage.

Components	Supported Host (Cisco UCS C-Series Rack Servers)	Supported Software
Cisco VSAN Ready Node	C240 M3	VMware VSAN 5.5, with VMware vSphere 5.5 Update 1 VMware VSAN 5.5, with VMware vSphere 5.5 Update 2 VMware VSAN 5.5, with VMware vSphere 6.0 VMware VSAN 6.0 (backward compatibility features of VSAN 5.5), with VMware vSphere 6.0 Update1
	C240 M4	VMware VSAN 5.5, with VMware vSphere 5.5 Update 1 VMware VSAN 5.5, with VMware vSphere 5.5 Update 2 VMware VSAN 5.5, with VMware vSphere 6.0 VMware VSAN 6.0 (backward compatibility features of VSAN 5.5), with VMware vSphere 6.0 Update1

Hyperconverged Infrastructure Support

Cisco UCS Director supports hyperconverged infrastructure. This support information is grouped by vendor.

Cisco HyperFlex System Support

The following table outlines support for Cisco HyperFlex System and related hardware and software.

Components	Supported Models	Certified Software	Supported Software
Cisco HX-Series Server	HX220C-M4 HX240C-M4 HXAF240C-M4SX HXAF220C-M4S	Cisco HX Data Platform, 2.6 Cisco HX Data Platform, 3.0.1a	

Converged Infrastructure Software Support

Cisco UCS Director supports software designed for converged infrastructure. This support information is grouped by vendor.

VCE Software Support

The following table outlines support for VCE converged infrastructure software.

Components	Supported Software
Vision Intelligent Operations	V2.5.3

PowerShell Support

Cisco UCS Director supports Microsoft Windows PowerShell for automation of the administration of system resources. This support information is grouped by PowerShell application.

PowerShell Agent Support

The following table outlines support and system requirements for PowerShell Agent.

Software	Supported Versions
Windows PowerShell	3.0 4.0 5.0 5.1

Software	Supported Versions
Operating System	Microsoft Windows Server 2016
	Microsoft Windows Server 2012
	Microsoft Windows Server 2008 R2 64-bit
.Net Framework	4.0 (Full Package) or higher

PowerShell Console Support

The following table outlines support and system requirements for PowerShell Console.

Software	Supported Versions
Windows PowerShell	3.0
	4.0
	5.0
	5.1
Operating System	Any version of the Windows Operating System
.Net Framework	4.0 (Full Package) or higher

Cisco Solution Partner - Certified Support

This section describes the support for integrations with and solutions for Cisco UCS Director that were developed by Cisco partners and have been tested and certified by Cisco.

The intellectual property for these solutions (developed as Cisco UCS Director Open Automation plug-in software) are owned by the partner that developed the solution. Therefore, the plug-in software is not distributed with Cisco UCS Director software from Cisco. You can download all Cisco certified solutions and plug-in software for Cisco UCS Director directly from the website of the partner who developed the plug-in. You can also contact the sales team for the partner or its vendor for more information. Cisco UCS Director customers can also log in to the Technology Solution Catalog on Cisco Market Place and search on the partner name for more information about feature support and benefits.

Hitachi Data Systems - Certified Support

The following table outlines support for integrations with Cisco UCS Director that were developed by Hitachi Data Systems and have been tested and validated by Cisco. This solution is available for download from Hitachi Data Systems. Additional information about the solution is available on the Hitachi Storage Connector page on Cisco Marketplace.

Solution Name	Solution Version	Supported Models	Certified Software/Firmware Versions
Hitachi Storage Connector for Cisco UCS Director	v2.1.2	Hitachi Virtual Storage Platform G/F800	83-04-01-x0/00
		Hitachi Virtual Storage Platform G/F600	83-04-01-x0/00
		Hitachi Virtual Storage Platform G/F400	83-04-01-x0/00
		Hitachi Virtual Storage Platform G/F200	83-04-01-x0/00
		Hitachi Virtual Storage Platform G1000 (VSP G1000)	80-05-34-00/04
		Hitachi Virtual Storage Platform G1500 (VSP G1500)	80-05-34-00/04
		Hitachi Virtual Storage Platform (VSP)	70-06-42-00/00
		Hitachi Unified Storage VM (HUS-VM)	73-03-50-00/00

Pure Storage - Certified Support

The following table outlines support for integrations with Cisco UCS Director that were developed by Pure Storage and have been tested and validated by Cisco. Additional information about the solution and a link to download the solution are available on the Pure Storage Connector for UCS Director page on Cisco Marketplace.

Solution Name	Solution Version	Components	Supported Models	Supported Software
Pure Storage Connector for Cisco UCS Director	v03.0.0	Pure Storage FlashArray	FlashArray //M FlashArray //X	Purity Operating Environment, Releases: • 4.x • 5.x

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