

Dell XC640 XC Series Appliance and XC Core System Support Matrix

June 2024

Revisions

Date	Description
June 2024	Updated the supported hypervisor OSs section.
August 2023	Updated the following sections: - Supported management software - Supported hypervisor OSs
July 2023	Updated the following sections: - Supported management software - Supported hypervisor OSs
March 2022	Updated the Supported NICs.
February 2022	Updated the supported hypervisor OSs section.
July 2021	Updated the supported physical disk drive section.
April 2021	Updated the supported physical disk drive section.
February 2021	Updated the following sections: - Supported components - Supported hypervisor Oss
December 2020	Updated the following sections: - Supported NICs and NDCs - Supported management software
September 2020	Updated the following sections: - Supported NICs and NDCs - Supported management software - Supported hypervisor Oss
July 2020	Updated the following sections: - Supported components - Memory capability
June 2020	Updated the Supported components section.
April 2020	Updated the following sections: Supported components

	- Supported NDCs - Supported NICs - Supported hypervisor Oss
February 2020	Updated Supported Hypervisor OS section
January 2020	Updated Supported NIC section
October 2019	Updated Supported NIC section
June 24, 2019	Added supported CPUs and supported memory
June 6, 2019	Updated the following sections: - Supported Management Software - Supported Hypervisor OS
May 2019	Updated the following sections: - Supported Management Software - Supported Hypervisor OS - Supported components
April 2019	Updated the following sections: - Supported Management Software - Supported Hypervisor OS
February 2019	Updated the following sections: - Updated Supported NDCs - Updated Supported NICs - Supported Management Software Added the Encryption Restrictions section
December 2018	Updated the following sections: - BIOS and iDRAC versions - Updated Supported NDCs - Updated Supported NICs - Updated Supported hypervisor Oss
August 2018	Updated content to include XC Core System and remove DPMC information
March 2018	Updated firmware and BIOS versions and added DPMC information
January 2018	Updated firmware, and Windows version
December 2017	Updated BIOS, iDRAC, and ESXi versions
November 2017	Initial release

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Introduction

This document provides information about the supported software, firmware, and hardware versions and technical specifications for the Dell XC640 Series Hyper-Converged Appliance.

NOTE: The information in this document applies to both Dell XC Series Appliances and the Dell XC Core System offering. Sections or information that apply to only one of the offerings (XC Series or XC Core) are called out explicitly.

This Support Matrix contains the latest compatibility and interoperability information. If you observe inconsistencies between this information and other documentation or references, this document supersedes all other documentation.

1 Supported hardware, firmware, and software

This chapter provides information about supported software, firmware, and hardware versions for the Dell XC640 Series Hyper-Converged Appliance.

NOTE: Future updates to this document may remove firmware versions because Nutanix LCM is the prescribed method to update the appliance.

1.1 Supported components

Table 1 Supported components

Component	Skylake Model	Cascade Lake Model	Cascade Lake Refresh *L CPUs offered on Core only
CPUs	3106	4210	4210R
	4108	4214	4214 R
	4109T	4215	4215R
	4110	4216	5218R
	4112	5215	5220R
	4114	5217	6226R
	4116	5218	6230R
	5115	5220	6238R
	5118	6222V	6240R
	5120	6226	6242R
	5122	6230	6246R
	6126	6234	6248R
	6128	6238	6258R
	6130	6240	6285R
	6132	6242	5215L
	6134	6244	6238L
	6134M	6246	6240L
	6136	6248	8260L
	6138	6252	8267L
	6140	6254	8280L
	6140M	6262V	
	6142	8260	
	6142M	8268	
	6144	8270	

Component	Skylake Model	Cascade Lake Model	Cascade Lake Refresh *L CPUs offered on Core only
	6146	8276	
	6148		
	6150		
	6152		
	6154		
	8153		
	8156		
	8158		
	8160		
	8160M		
	8164		
	8168		
	8170		
	8170M		
	8176		
	8180		
	8180M		
BIOS	1.2.11 and later	2.2.11 and later	
iDRAC support	3.15.15.15 or later	3.34.34.34 and later	

Table 2 Memory capability

	Skylake	Cascade Lake	Skylake/Cascade Lake *Will downclock from this to CPU capability
16Gb RDIMM	2666	2933	3200
32Gb RDIMM	2666	2933	3200
64Gb LRDIMM	2666	2666	N/A
64Gb RDIMM	NA	2933	3200
128Gb LRDIMM	2666	2666	NA

Table 3 Support

Shelf	2933 MT/s Support
Platinum-82xx	✓
Gold-62xx	✓
Gold-52xx	
Silver-42xx	

1.2 Supported physical disk drives

This section provides information about disks drives supported by your hardware.

Table 4 Supported physical disk drives

Form Factor	Capacity	Type	Vendor
2.5"	1 TB	SAS HDD	Dell Supported
2.5"	1.2 TB	SAS HDD	Dell Supported
2.5"	1.8 TB	SAS HDD	Dell Supported
2.5"	2.0 TB	SAS HDD	Dell Supported
2.5"	2.4 TB	SAS HDD	Dell Supported
2.5"	2.4 TB	SED SAS HDD	Dell Supported
2.5"	400 GB	SATA SSD	Dell Supported
2.5"	480 GB	SATA SSD	Dell Supported
2.5"	480 GB	SAS SSD	Dell Supported
2.5"	800 GB	SATA SSD	Dell Supported
2.5"	960 GB	SATA SSD	Dell Supported
2.5"	960 GB	SED SAS SSD	Dell Supported
2.5"	960 GB	SAS SSD	Dell Supported
2.5"	1600 GB	SATA SSD	Dell Supported
2.5"	1920 GB	SAS SSD	Dell Supported
2.5"	1920 GB	SED SAS SSD	Dell Supported
2.5"	1920 GB	SATA SSD	Dell Supported
2.5"	3840 GB	SED SAS SSD	Dell Supported
2.5"	3840 GB	SATA SSD	Dell Supported
2.5"	3840 GB	SAS SSD	Dell Supported
2.5"	7680 GB	SAS SSD	Dell Supported
2.5"	7680 GB	SED SAS SSD	Dell Supported
2.5"	7680 GB	NVMe *Available on Core only	Dell Supported

1.2.1 Encryption Restrictions

This section describes encryption restrictions.

- If encryption has never been enabled and you do not plan to use it in the future, secure encrypted drives (SED) can be mixed with unencrypted (non-SED) drives in the same node.

- If encryption was never enabled and remains disabled, encrypted nodes can be mixed with unencrypted nodes in the same cluster.
- Encryption is not supported for NVMe drives.
- All nodes in the cluster must have SED capable drives to use hardware SED encryption.

NOTE: If SED drives are mixed with non-SED drives, the encryption cannot be enabled for that cluster.

NOTE: An encryption key must be removed from the SED drives from Prism before you format (clear) the SED drives.

1.3 Supported networking

This section provides information about networking supported by your hardware and supported NICs.

Intel branded Network Daughter Cards (NDC) and Network Interface Cards (NIC) specify the use of only Intel branded SFP+ optical modules for use with optical cables. When ordering a system with optics, the appropriate Intel branded SFP+ optical modules are included with your order. If you already have SFP+ optical modules, ensure that they are the Intel branded modules before inserting into the NDC or NIC. Twinax cables are also the supported network cables for Intel NDC and NIC.

CAUTION: Using any brand of SFP+ module other than Intel during deployment disables the 10 GbE ports. Call Dell Support to recover port functionality.

WARNING: Hot-plugging an unsupported SFP+ module causes ESXi host to fail with purple diagnostic screen. Call Support to recover from this situation.

1.3.1 Supported NICs and NDCs

NOTE: Mellanox supported with AOS 5.6.1 and later. Broadcom supported with AOS 5.16 and later. Broadcom is not supported under Hyper-V.

Vendor	Description	Chipset
Intel	CRD,NTWK,10G BASE-T,QP,INTEL	X710
	CRD,NTWK,10G BASE-T,QP,INTL,LP	X710
	CRD,NTWK,PCIE,1GB,DP,INT,LP,V3	i350
	CRD,NTWK,PCIE,1GB,QP,INT,LP,V3	i350
	CRD,NTWK,10GBT,INTEL,LP,V2	X550
	CRD,NTWK,13G,RNDC,IN,10G,SFP,2	X710/i350
	CRD,NTWK,RNDC,4X10G,BT,INTEL	X550
	CRD,NTWK,12G,RNDC,INTEL,QP,1G	i350
	CRD,NTWK,RNDC,QP,2+2,BT,INTEL	X550/i350
	CRD,NTWK,10G,SFP+,DP FVL,IN,LP	X710
	CRD,NTWK,DP,INTEL,25G,SFP,LP	XXV710
	CRD,NTWK,25G,CX4LX,DP,RNDC,MLN	CX4LX
	CRD,NTWK,25G,CX4LX,DP,RNDC,F1	CX4LX
Mellanox	CRD,NTWK,25G,CX4LX,DP,SFP,ML,L	CX4LX
	CRD,NTWK,25G,CX4LX,DP,SFP,F1	CX4LX
	CRD,NTWK,25G,CX4LX,DP,SFP,MLNX	CX4LX
	CRD,NTWK,MLNX,LP,25G,2P,S28	CX5
	CRD,NTWK,MLNX,LP,25G,2P,S28,F1	CX5
	CRD,NTWK,PCIE,DP,10G,57416,FH	57416
	CRD,NTWK,PCIE,DP,25G,57414,FH	57414
Broadcom	CRD,NTWK,RNDC,BRCM,10GBT	57416/5720
	CRD,NTWK,RNDC,BRCM,25GSFP,V2	57414

1.4 Supported management software

This section provides information about components supported by your appliance.

Table 5 Supported management software

Name	Minimum AOS version (Skylake)	Minimum AOS version (Cascade lake)
AHV	5.1 or later	5.10.3.2 or later
Windows Server 2016 (EOL) For support dates, see Hyper-V Server 2016 - Microsoft Lifecycle Microsoft Learn	5.5.0.4 or later	5.10.3.2 or later
Windows Server 2019	5.17 or later	5.17 or later
ESXi 6.0U3 (EOL date 3/12/2020)	5.1 or later	5.10.3.2 or later
ESXi 6.5d (EOL date 10/15/2022)	5.1 or later	5.10.3.2 or later
ESXi 6.7 (EOL date 10/15/22)	5.9 or later	5.10.3.2 or later
ESXi 7.0	Foundation 4.5.4.2 or later plus AOS 5.18 or later	Foundation 4.5.4.2 or later plus AOS 5.18 or later
ESXi 7.0 U1	Min. AOS version-LTS: 5.15.5 Min. AOS version-STs: 5.19.1	Min. AOS version-LTS: 5.15.5 Min. AOS version-STs: 5.19.1
ESXi 7.0 U2	Min. AOS version-LTS: 5.15.5	Min. AOS version-LTS: 5.15.5
ESXi 7.0 U3	Min. AOS version-LTS 5.20.4	Min AOS version-LTS 5.20.4

1.5 Supported hypervisor OSs

More recent versions are supported; check the table above.

This section provides information about the hypervisor Operating Systems (OS) supported by your appliance.

Table 6 Supported hypervisor OSs

Name	
VMware	ESXi 6.0 U3 (EOL date 3/12/2020) ESXi 6.5d, 6.5U1, 6.5U2, 6.5U3 (EOL 10/15/22) ESXi 6.7, 6.7U1, 6.7U2, 6.7U3 (EOL 10/15/22) ESXi 7.0, 7.0U1, 7.0U2, 7.0U3 ESXi 8.0U1 (see KB 000016292 ; you must log in to view the KB article).
Windows Server	Windows Server 2012 R2 (deprecated) Server Windows 2016 with GUI (OEM) Server Windows 2016 with GUI or Core (VL) Windows Server 2019 with GUI or Core (VL)
Acropolis Hypervisor (AHV)	AHV 5.1 or later
Citrix	No Dell support

NOTE: Dell does not support the free Hyper-V Server edition.

2 Documentation Matrix

The documentation matrix provides information about the documents that you use to configure and deploy the Dell Hyper-Converged Appliance solution.

WARNING: See the safety and regulatory information that shipped with your system. Warranty information may be included with this document or as a separate document.

Make sure that you read through any media that ships with your system that provides documentation and tools for configuring and managing your system, including those pertaining to the OS, system management software, system updates, and system components that you purchased with your system.

NOTE: URLs such as Dell.com/support or Dell.com/support/home are not active because you must type the URL from your location to access your specific language.

For the full name of an abbreviation or acronym used in this document, see the Glossary at Dell.com/support/home.

NOTE: Always read the updates on Dell.com/support/home because they often supersede information in other documents.

NOTE: While upgrading your system, Dell recommends that you download and install the latest BIOS, driver, and systems management firmware on your system from Dell.com/support/home.

2.1 Dell documentation

Dell documentation is either included with your shipment or available at the Dell website at Dell.com/xcseriesmanuals.

Dell documentation for:

- Dell iDRAC is available at Dell.com/idracmanuals.
- Dell OpenManage Essentials is available at Dell.com/openmanagemanuals.

To access Dell documentation:

1. In the **Dell Support** page, scroll down to **General Support**, and then click **Servers, Storage & Networking**.
2. Click **Engineered Solutions**, click **Manuals**, and select the documentation you require.

Table 7 Dell reference documentation

To learn about...	Refer to...
Setup instructions of your system, including the technical specifications	<i>Getting Started Guide</i>
Hardware details for your system	<i>Owner's Manual</i>
How to install your system into a rack	<i>Dell Rack Install Guide</i>
How to deploy and set up this solution	<i>Solutions Guide</i>

To learn about...	Refer to...
How to deploy an ESXi hypervisor	<i>ESXi Best Practices Guide</i>
How to find important information about your solution	<i>Release Notes</i>
Setting up and using Dell iDRAC9	<i>Dell iDRAC9 Quick Start Guide</i>
Using OpenManage Essentials to monitor, perform updates, view hardware, and view inventory on your system	<i>Dell OpenManage Essentials User's Guide</i>

2.2 Nutanix documentation

You can find Nutanix documentation using the Nutanix portal at <https://portal.nutanix.com/#/page/docs>. To display a complete set of documentation, you must have user credentials to log in.

The required Nutanix documentation is found using various filters or search.

Table 8 Nutanix documentation

To learn about...	Acropolis base document name
Set up instructions for environments with special requirements and restrictions.	<i>Acropolis Advanced Setup Guide</i>
Comprehensive references for Controller Virtual Machine (CVM) utilities, nCLI commands, and Nutanix PowerShell cmdlet	<i>Acropolis Command Reference</i>
Instructions and reference for administering the Nutanix solution software outside the Nutanix Prism UI (such as cluster start/stop, manual upgrade, changing passwords, reconfiguring IP addresses, and troubleshooting tools).	<i>Acropolis Advanced Administration Guide</i>
Managing Nutanix Acropolis AHV hosts that run Nutanix solution software.	<i>Acropolis Hypervisor Administration Guide</i>
Managing VMware ESXi hosts that run Nutanix solution software, including VMware vCenter requirements.	<i>vSphere Administration Guide for Acropolis (using vSphere Client)</i>
Managing Hyper-V hosts that run the Nutanix solution software, including domain requirements.	<i>Hyper-V Administration for Acropolis</i>
Comprehensive references for the Nutanix REST API.	<i>Acropolis API Reference</i>
Distributed VM management services for Nutanix nodes with Acropolis hypervisor (AHV).	<i>Acropolis App Mobility Fabric Guide</i>

To learn about...	Acropolis base document name
Nutanix support of containers through Acropolis Container Services.	<i>Acropolis Container Services Guide</i>
Set up instructions for your solution.	Field Installation Guide
Software instructions for hardware components that are not functioning.	<i>AHV Administration Guide</i>
Software instructions for hardware components that are not functioning.	<i>Hardware Replacement Documentation</i>
Comprehensive instructions and references for the Nutanix UI, including overview information.	<i>Prism Web Console Guide</i>
Monitoring multiple Nutanix cluster through web console.	<i>Prism Central Guide</i>

3 Contacting Dell

Dell provides several online and telephone-based support and service options. If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical assistance, or customer-service issues:

1. Go to **Dell.com/support**.
3. Select your country from the drop-down menu on the lower right corner of the page.
4. For customized support:
 - Enter your system **Service Tag** in the **Enter your Service Tag** text box.
 - Click **Submit**.
 - The support page that lists the various support categories is displayed.
5. For general support:
 - Select your product category.
 - Select your product segment.
 - Select your product. The support page that lists the various support categories is displayed.
6. For contact details of Dell Global Technical Support:
 - Click **Global Technical Support**.
 - The Contact Technical Support page is displayed with details to call, chat, or email the Dell Global Technical Support team.

4 Quick Resource Locator

Use the Quick Resource Locator (QRL) to get immediate access to Dell XC640 solution information. This information provides access to reference documentation, a link to the Dell support page, and links to hardware-specific QRL pages, which include how-to videos. You can access this information by visiting www.dell.com/QRL or by using your smartphone or tablet and scanning the QR code below. You can also click the image below to go directly to the Dell XC640 QRL location.

