

Dell EMC XC430 Xpress Hyper-Converged Appliance Support Matrix

February 2020

Revisions

Date	Description
June 2020	Updated the Hypervisor OS section.
June 2019	Updated the following sections: <ul style="list-style-type: none"> • Supported Management Software • Supported Hypervisor OS
August 2018	Update firmware and BIOS.
March 2018	Updated firmware and BIOS.
January 2018	Updated firmware, updated Windows version.
December 2017	Updated the BIOS.
October 2017	Converted from HTML to PDF format.

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Introduction

This document provides information about the supported software, firmware, and hardware versions and technical specifications for the Dell EMC XC430 Xpress Hyper-Converged Appliance.

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 XC430 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	v4 Version
CPU	E5-2640 v4
	E5-2620 v4
	E5-2609 v4
BIOS	2.7.1 or later
iDRAC support	2.52.52.52 or later
Maximum node count	4

1.2 Validated BIOS and iDRAC versions

Each row in the table below represents the validated BIOS and iDRAC version pair.

Table 2 Validated BIOS and iDRAC versions

BIOS	iDRAC
2.7.1	2.52.52.52
2.8.0	2.60.60.60

1.2.1 Supported physical disk drives

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

Table 3 Supported physical disk drives

Form Factor	Capacity	Type	Vendor
3.5"	2 TB	NL-SAS HDD	Dell EMC Supported
3.5"	4 TB	NL-SAS HDD	Dell EMC Supported
3.5"	6 TB	NL-SAS HDD	Dell EMC Supported
2.5"	400 GB	SATA SSD	Intel
2.5"	480 GB	SATA SSD	Intel

Form Factor	Capacity	Type	Vendor
2.5"	960 GB	SATA SSD	Intel
2.5"	1920 GB	SATA SSD	Intel
2.5"	3840 GB	SATA SSD	Intel
2.5"	480 GB	SATA SSD	Samsung
2.5"	960 GB	SATA SSD	Samsung
2.5"	1920 GB	SATA SSD	Samsung

1.2.2 Supported HBAs

This section provides information about Host Bus Adapters (HBA) supported by your hardware.

Table 4 Supported HBAs

Name	Form factor/Slot	Minimum firmware version	Latest version
Windows Driver			2.51.21.1
HBA330	Mini or integrated slot	13.17.03.00 or later	15.17.09.06

1.2.3 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 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 EMC Support to recover port functionality.

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

Table 5 Supported networking

Name	Minimum firmware version	Latest version
Broadcom Dual 1GbE LOM	7.10.59	20.08.04.04

1.2.4 Supported NICs

Table 6 Supported NICs

Name	Form factor or Slot	Minimum firmware version	Latest version	Supported cables
Intel X520 Dual 10 G SFP+	Low profile/any slot	16.0.24	18.5.17	Intel branded SFP+ modules only (10 GbE) Twinax Cable (10 GbE)
Intel X540 Dual 10 G BaseT	Low profile/any slot	16.0.24	18.5.17	Standard Category 6 Ethernet (up to 10 GbE)

1.2.5 Supported hardware management solutions

This section provides information about hardware management solutions that are supported by your appliance.

Table 7 Supported hardware management solutions

Name	Minimum firmware version
Dell EMC OpenManage Essentials	2.0
Dell EMC Nautilus Firmware Update Utility	A13
Fabric Manager	1.0

1.2.6 Supported management software

This section provides information about components supported by your appliance.

Table 8 Supported management software

Name	Minimum AOS version
AHV	5.1 or later
Windows Server 2016	5.5.0.4 or later
ESXi 6.0U3	5.1 or later
ESXi 6.5d	5.1 or later
ESXi 6.7	5.9 – STS or later/ 5.5.7- LTS or later
ESXi 6.7 U1, ESXi 6.7 U2	5.5.9 -LTS or later in 5.5.x branch 5.10.2 – LTS or later in 5.10.x branch

1.2.7 Supported hypervisor OSs

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

Table 9 Supported hypervisor OSs

Name	Minimum firmware version
VMware	ESXi 5.5 U3 ESXi 6.0 U1 ESXi 6.5a ESXi 6.5 U1 ESXi 6.5 U3 ESXi 6.7 ESXi 6.7 U1 ESXi 6.7 U2 ESXi 6.7 U3
Windows Server	Windows Server 2012 R2 Standard Edition Windows Server 2012 R2 Datacenter Edition Windows Server 2016 (AOS version 5.5.0.4)
Acropolis Hypervisor (AHV)	Nutanix 20160925.30

1.2.8 Recommended switches

Table 10 Recommended switches

Model	Type	Minimum Version
Dell EMC PowerConnect	PC8000	5.1.10.1
	PC6000	3.3.15.1
Dell EMC Networking	S4810 /S60 / S4048 / S5000	9.11.0.0
Cisco	Nexus 3000	7.0.3.14
Arista	7050 SX / QX	4.17.3

2 Technical specifications

This chapter provides technical specifications for Dell EMC XC430 Xpress Hyperconverged Appliance.

2.1 Physical specifications

This section provides expansion physical specifications for storage, including height, width, depth, maximum configuration weight and empty weight.

Table 11 Physical specifications

Physical	Specification
Height	42.8 mm (1.68 inch)
Width with rack latches	482.4 mm (18.99 inch)
Width without rack latches	434.0 mm (17.08 inch)
Depth (excludes bezel)	607.0 mm (23.9 inch)
Weight (Maximum)	19.9 kg (43.87 lb)
Weight (Empty)	16.73 kg (36.88 lb)

2.2 Processor specifications

This section provides processor specifications required for your hardware.

Table 12 Processor specifications

Type	Specification
Intel Xeon processor	EP E5-2600 v4 product family

2.3 Expansion bus specifications

This section provides expansion bus specifications for storage, including bus type, expansion cards, and expansion slots.

Table 13 Expansion bus specifications

Expansion Bus	Specification
Bus type	PCI Express Generation 2 and 3
Expansion slots using riser card	
PCIE_G3_X16	(Slot 1) one low profile, half-length x16 link for processor 1 (Slot 2) one low profile, half-length x16 link for processor 1
PCIE_G3_X8	(Slot 1) one full-height, half-length x8 link for processor 1 (Slot 2) one half-height, half-length x8 link for processor 1

2.4 Power specifications

This section provides power specifications for your hardware, including wattage, heat dissipation, and voltage.

NOTE: This system is also designed to connect to IT power systems with a phase to phase voltage not exceeding 230 V.

Table 14 Power Specifications

Type	Specification
AC power supply unit (PSU)	
Wattage	550 W
Heat dissipation	550 W (Platinum) AC (100–240 V, 50/60 Hz, 7.4 A–3.7 A)
NOTE: Heat dissipation is calculated based on power rating of PSU.	2107 BTU/hr (550W PSU)
Voltage	100–240 V AC, auto ranging, 50/60 Hz

2.5 Memory specifications

This section provides memory specifications for your hardware, including architecture, memory module sockets, and memory module capacities.

Table 15 Memory Specifications

Memory	Specification
Architecture	2133 MT/s, 2400 MT/s DDR4 DIMMs Support for advanced ECC or memory-optimized operation
Memory module sockets	Twelve 288-pin
Memory module capacities	
RDIMM	16 GB or 32 GB
Minimum RAM	64 GB
Maximum RAM	Up to 192 GB with single processor Up to 384 GB with dual processor
RAID controller	
Controller type	PERC 9 family

2.6 Hard drive specification

This section provides hard drive specifications for your hardware.

Table 16 Hard drive specification

Type	Specification
Four hard-drive systems	1x SATA SSD + 3x 3.5" NL-SAS HDD

2.7 Connector specifications

This section provides connectors specifications for your hardware, including rear, front, and internal connectors.

Table 17 Connector specifications

Type	Specification
Rear	
NIC	Four 10/100/1000 Mbps
Serial	9-pin, DTE, 16550-compatible
USB	One 9-pin, USB 3.0-compliant One 4-pin, USB 2.0-compliant
Video	15-pin VGA
External vFlash card	One optional vFlash memory card NOTE: The card slot is available for use only if the iDRAC8 Enterprise license is installed on your system.
Front	
USB	Two 4-pin, USB 2.0-compliant
Video	15-pin VGA
Internal	
USB	One 9-pin, USB 3.0-compliant
Internal Dual SD Module (IDSDM)	One flash memory card slot with the internal SD module

2.8 Video specifications

This section provides video specifications for storage, including type, and memory.

Table 18 Video specifications

Type	Specification
Video type	Integrated Matrox G200
Video memory	16 MB shared

2.9 Environmental specifications

This section provides environmental specifications for storage, including temperature, relative humidity, maximum vibrations, particulate contamination, gaseous contamination, and expanded operating temperature.

NOTE: For more information about environmental measurements for specific system configurations, see Dell.com/environmental_datasheets.

Table 19 Environmental specifications

Type	Specification
Temperature	
Storage	–40°C to 65°C (–40°F to 149°F)
Continuous operation (for altitude less than 950 m or 3117 ft)	10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.
Maximum temperature gradient (operating and storage)	20°C/h (36°F/h)
Relative humidity	
Storage	5% to 95% RH with 33°C (91°F) maximum dew point. The atmosphere must be non-condensing at all times.
Operating	10% to 80% Relative Humidity with 29°C (84.2°F) maximum dew point.
Maximum vibration	
Storage	0.26 Grms at 5 Hz to 350 Hz (all operation orientations).
Operating	1.88 Grms at 10 Hz to 500 Hz for 15 min (all six sides tested).
Maximum shock	
Storage	Six consecutively run shock pulses in the positive and negative x, y, and z axes of 40 G for up to 2.3 ms.
Operating	Six consecutively run shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms.
Maximum altitude	
Operating	3,048 m (10,000 ft)
Storage	12,000 m (39,370 ft)
Operating altitude de-rating	
Up to 35°C (95°F)	Maximum temperature is reduced by 1°C/300 m (1°F/547 ft) above 950 m (3,117 ft).
35°C to 40°C (95°F to 104°F)	Maximum temperature is reduced by 1°C/175 m (1°F/319 ft) above 950 m (3,117 ft).
40°C to 45°C (104°F to 113°F)	Maximum temperature is reduced by 1°C/125 m (1°F/228 ft) above 950 m (3,117 ft).
Particulate contamination	

Type	Specification
<p>NOTE: This section defines the limits to help avoid IT equipment damage and/or failure from particulates and gaseous contamination. If it is determined that levels of particulates or gaseous pollution are beyond the limits specified below and are the reason for the damage and/or failures to your equipment, it may be necessary for you to re-mediate the environmental conditions that are causing the damage and/or failures. Remediation of environmental conditions is the responsibility of the customer.</p>	
Air filtration	<p>Data center air filtration as defined by ISO Class 8 per ISO 14644-1 with a 95% upper confidence limit.</p> <p>Note: Applies to data center environments only. Air filtration requirements do not apply to IT equipment designed to be used outside a data center, in environments such as an office or factory floor.</p> <p>Air entering the data center must have MERV11 or MERV13 filtration.</p>
Conductive dust	<p>Air must be free of conductive dust, zinc whiskers, or other conductive particles.</p> <p>Note: Applies to data center and non-data center environments.</p>
Corrosive dust	<p>Air must be free of corrosive dust.</p> <p>Residual dust present in the air must have a deliquescent point less than 60% relative humidity.</p> <p>Note: Applies to data center and non-data center environments.</p>
Gaseous contamination	
<p>Note: Maximum corrosive contaminant levels measured at ≤50% relative humidity.</p>	
Copper coupon corrosion rate	<300 Å/month per Class G1 as defined by ANSI/ISA71.04-1985.
Silver coupon corrosion rate	<200 Å/month as defined by AHSRAE TC9.9.

3 Documentation Matrix

The documentation matrix provides information about the documents that you use to configure and deploy the Dell EMC 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 EMC recommends that you download and install the latest BIOS, driver, and systems management firmware on your system from Dell.com/support/home.

3.1 Dell EMC documentation

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

Dell EMC documentation for:

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

To access Dell EMC 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 20 Dell EMC 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>Installation and Services Manual</i>

To learn about...	Refer to...
How to install your system in to a rack	<i>Dell EMC Rack Install Guide</i>
How to deploy and set up this solution	<i>Deployment Guide (Hypervisor specific)</i>
Setting up and using Dell EMC iDRAC8	<i>Dell EMC iDRAC8 Quick Start Guide</i>
Using OpenManage Essentials to monitor, perform updates, view hardware, and view inventory on your system	<i>Dell EMC OpenManage Essentials User's Guide</i>
How to verify if your network switch works in an Xpress environment	<i>Fabric Manager for XC Xpress User's Guide</i>
Checklist to fill out before you deploy your appliance	<i>Dell EMC XC Xpress Checklist</i>

3.2 Nutanix documentation

Nutanix documentation is found using the Nutanix portal found 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 21 Nutanix documentation

To learn about...	<i>Acropolis base document name</i>
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>
Nutanix support of containers through Acropolis Container Services.	<i>Acropolis Container Services Guide</i>

To learn about...	<i>Acropolis base document name</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>

4 Contacting Dell EMC

Dell EMC 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 EMC product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell EMC for sales, technical assistance, or customer-service issues:

1. Go to **Dell.com/support**.
2. Select your country from the drop-down menu on the lower right corner of the page.
3. 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.
4. 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.
5. For contact details of Dell EMC Global Technical Support:
 - Click **Global Technical Support**.
 - The Contact Technical Support page is displayed with details to call, chat, or email the Dell EMC Global Technical Support team.

5 Quick Resource Locator

Use the Quick Resource Locator (QRL) to get immediate access to Dell EMC XC430 Xpress solution information. This information provides access to reference documentation, a link to the Dell EMC 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 EMC XC430 Xpress QRL location.

