



DELL EMC XC SERIES OF HYPER-CONVERGED INFRASTRUCTURE APPLIANCES

The Dell EMC™ XC Series of hyper-converged appliances integrates our 14th generation PowerEdge server platform and Nutanix software to provide enterprise-class, infrastructure solutions for virtualized environments. Backed by Dell EMC's Global Service and Support organization, these 1U and 2U appliances consolidate compute and storage into a single platform enabling application and virtualization teams to quickly and simply deploy new workloads. This solution enables data center capacity and performance to be easily expanded — one node at a time — delivering linear and predictable scale-out expansion with pay-as-you-grow flexibility.

XC Series appliances incorporate many of the advanced software technologies that power leading cloud infrastructures and include key features such as:

- Hyper-converged – Seamlessly integrates server and storage resources in a self-healing system
- Hypervisor choice - your choice of factory-installed hypervisor
- Scale-out – Increase performance and/or capacity one node at a time, even across multiple generations
- Automation and analytics – Extensive automation and rich system-wide monitoring

Designed to simplify IT

XC Series appliances simplify the deployment of virtual machines in any environment. The Nutanix Acropolis Operating System runs in a Controller VM (CVM) on each node, aggregating storage resources (hard disk drives and flash storage) across all nodes. This pooled storage is made available to all hosts through a fault-tolerant architecture. With an unrivaled ability to run VMs out of the box, XC Series appliances deliver an easy, modular approach to building modern data centers.

Ideal for virtualized workloads

XC Series appliances are excellent solutions for all enterprise workloads and applications running in virtual environments. Preconfigured appliance options with flexible ratios of compute and storage including all flash configurations, coupled with support for Microsoft® Hyper-V®, Nutanix AHV and VMware® ESXi™, make them ideal for running different workloads on the same platform in your data center. They can be easily deployed into any data center in less than 30 minutes and can support multiple virtualized, business-critical workloads including VDI, private cloud, database, OLTP and data warehouse as well as virtualized big data deployments.

Intuitive and powerful management interface

The Nutanix Prism Central management framework provides a highly intuitive, easy-to-use graphical user interface (GUI). All information is organized and presented through elegant touch points to facilitate easy consumption of operational data. Prism provides the ability to define and manage a complete hyper-converged infrastructure from nearly any device and includes REST APIs for integration with third-party cloud management systems. It also gives administrators a bird's eye view of resources across multiple clusters running different hypervisors and enables them to manage individual clusters using the GUI or a Windows PowerShell command-line interface.

Adding value to Nutanix software

Dell EMC has over 10 years of experience integrating hardware and software for appliances built with PowerEdge servers. That experience enabled us to develop technologies that simplify and streamline common workflows performed throughout the appliance's lifecycle. It starts with factory installation of the software stack and hypervisor of choice and pre-configuration of system settings to maximize performance of the Nutanix software. Other examples include software modules that deliver fast and seamless deployment, rapid factory restore and bare metal recovery, rich in-band hardware monitoring and management capabilities, and components developed specifically for HCI to simplify workflow orchestration across a cluster.

The XC Series' unique value also extends beyond core infrastructure with fully integrated Dell EMC data protection, an exclusive offering for the XC Series. With the optional Data Protection Management Console (DPMC), enhanced data protection from Avamar VE and Data Domain enables the XC Series to deliver a turnkey HCI experience with enterprise class data protection.

XC Series also incorporates optimizations for Microsoft Windows 2016 Hyper-V plus Azure including one-click hypervisor updates. The XC Series Azure Log Analytics Solution provides integration of XC Series into customer's OMS-based data center automation tools, enabling insights such as trend analysis and behavioral anomaly detection.

Configurations and features	XC640-4/ XC640-4i	XC640-10	XC740xd-12	XC740xd-24 ¹	XC740xd-12C	XC740xd-12R	XC6320-6
Form factor	1U, 1 node	1U, 1 node	2U, 1 node			2U, 1 node	2U, up to 4 nodes
Workload	Remote/ branch office, non mission-critical XC640-4: 3-node cluster deployment XC640-4i: 1 node deployment	Compute and performance- intensive VDI, test and development, enterprise cloud, server virtualization	Storage-heavy Microsoft Exchange, SharePoint, data warehouse, big data	Performance- intensive SQL and Oracle OLTP, VDI with GPU	Storage capacity node for cluster with any supported hypervisor; does not run workload VMs or virtual desktops	Single Node Replication Target (not clustered)	High-density compute and storage environments, service providers, private cloud
Dell EMC PowerEdge server platform	R640		R740xd			C6320	
Hypervisor boot	Boot Optimized Storage Solution - 2x120GB M.2 RAID 1 Mirror, low profile PCIe						
Hypervisor options	Microsoft® Windows Server™ 2016 (except XC640-4i) with Hyper-V or Windows Server® 2012 R2 with Hyper-V, Nutanix AHV, VMware® ESXi™ 6.5 and 6.0				Nutanix AHV only	Nutanix AHV	Microsoft Windows Server 2012 R2 with Hyper-V, Nutanix AHV, VMware ESXi 6.0 and 6.5
License options	Nutanix Starter, Pro and Ultimate License						
Software maintenance	Nutanix 1 -5-year Software Maintenance/Assurance						
Support	1-5-year coterminous ProSupport (4 hr and NBD) or ProSupport Plus comprehensive XC Series support with Nutanix assist						
Intel® Xeon® processors (dual only per node except XC640-4i)	XC640-4: Platinum 8180, 8176, 8170, 8164, 8160, 8158, 8153; Gold 6152, 6150, 6148, 6140, 6138, 6136, 6134, 6132, 6130, 6128, 6126, 5120, 5118, 5115; Silver 4116, 4114, 4110, 4108 XC640i (single only): Gold 5118, Silver 4114, 4108	Platinum 8180, 8176, 8170, 8164, 8160, 8158, 8153; Gold 6152, 6150, 6148, 6140, 6138, 6136, 6134, 6132, 6130, 6128, 6126, 5120, 5118, 5115; Silver 4116, 4114, 4110, 4108	Platinum 8180, 8176, 8170, 8164, 8160, 8158, 8153; Gold 6152, 6150, 6148, 6140, 6138, 6136, 6134, 6132, 6130, 6128, 6126, 5120, 5118, 5115; Silver 4116, 4114, 4110, 4108	Platinum 8180, 8176, 8170, 8164, 8160, 8158, 8153; Gold 6152, 6150, 6148, 6140, 6138, 6136, 6134, 6132, 6130, 6128, 6126, 5120, 5118, 5115; Silver 4116, 4114, 4110, 4108	Silver 4108; Bronze 3106	Silver 4114, 4108	E5-2620 v4 E5-2630 v4 E5-2650 v4 E5-2660 v4 E5-2680 v4 E5-2695 v4
Data storage controller	Dell EMC SAS HBA330						LSI 2008
Drive type	4 x 3.5" drives	10 x 2.5" drives	12 x 3.5" drives	24 x 2.5" drives	12 x 3.5" drives	12x 3.5: drives	6 x 2.5" drives ²

¹ or 2 NVIDIA Tesla M10, 2560 cores/32GB DDR5, 225W or can be configured with 1, 2 or 3 NVIDIA Tesla M60, 4096 cores/16GB DDR5, 300W. Not compatible with NVMe SSDs

²Per node

Configurations and features	XC640-4/ XC640-4i	XC640-10	XC740xd-12	XC740xd-24 ¹	XC740xd-12C	XC740xd-12R	XC6320-6
SSD capacities	SAS/SATA SSDs: 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.9TB, 3.8TB. Min 2, max 4 for hybrid configurations. All flash SAS/SATA configurations available	SAS/SATA SSDs: 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.9TB, 3.8TB. Min 2, max 4 for hybrid configurations. All flash SAS/SATA and SSD+ NVMe configurations available, NVMe SSDs (XC640-10 and XC740xd-24 only): 800GB, 1.6TB, 3.2TB	SAS/SATA SSDs: 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.9TB, 3.8TB. Min 2, max 4 for hybrid configurations. All flash SAS/SATA configurations available	SAS/SATA SSDs: 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.9TB, 3.8TB. Min 2, max 4 for hybrid configurations. All flash SAS/SATA and SSD+ NVMe configurations available, max 60TB per node. NVMe SSDs (XC640-10 and XC740xd-24 only): 800GB, 1.6TB, 3.2TB	SAS/SATA SSDs: 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.9TB, 3.8TB. Min 2, max 4 for hybrid configurations. All flash SAS/SATA configurations available	SAS/SATA SSDs: 400GB, 480GB, 800GB, 960GB, 1.6TB, 1.9TB, 3.8TB. Min 2, max 4 for hybrid configurations. All flash SAS/SATA configurations available	2X 400GB, 480GB, 800GB, 960GB, 1.9TB. 3.8TB - all flash configuration only ; all flash version available with 6X 400GB, 800GB, 1.6TB or 3..8TB SSDs of the same capacity
HDD capacities (max 60TB total per node)	2X 2TB, 4TB or 8TB	1.2TB, 1.8TB, 2.4TB 12Gb SAS	2TB, 4TB or 8TB , 12Gb SAS with a maximum of 60TB total capacity per node	1.2TB, 1.8TB, 2.4TB 12Gb SAS; minimum of 4 and max 22	2TB, 4TB or 8TB, 12Gb SAS with a maximum of 60TB total capacity per node	2TB, 4TB or 8TB, 12Gb SAS with a maximum of 60TB total capacity per node	4X 1TB, 2TB
Self-encrypting drives (SED)	SSD: 1.9TB HDD: 4TB, 8TB	SSD: 1.9TB HDD: 1.2TB, 2.4TB	SSD: 1.9TB HDD: 4TB, 8TB	SSD: 1.9TB HDD: 1.2TB, 2.4TB	SSD: 1.9TB HDD: 4TB, 8TB	SSD: 1.9TB HDD: 4TB, 8TB	SSD: 400GB, 800GB, 1.6TB HDD: 2TB
DIMMs	4 - 24 16GB and 32GB RDIMMS or 64GB LRDIMMS (XC640-4) and 2 - 12 16GB and 32GB RDIMMS (XC640-4i)	8-24 x 16GB and 32GB RDIMMS or 64GB LRDIMMS, installed in pairs			4 - 24 x 16GB and 32GB RDIMMS, installed in pairs	4-24 x 16GB and 32GB RDIMMS, installed in pairs	8-16 per node x 16GB, 32GB RDIMMS, installed in pairs
Memory configs	64GB - 1.5TB (XC640-4) and 64GB - 384GB (XC640-4i)	128GB - 1.5TB (XC640-10, XC740xd-12) 64GB - 1.5TB (XC740-24)			64GB - 768GB	64GB - 768GB	128GB - 512GB ²
Networking options	Network daughter cards (1 per appliance except XC6320): Intel X550 4x10GbE-T, Intel X550 2x10GbE-T & i350 2x1GbE-T, Intel X710 2x10GbE SFP+ & i350 2x1GbE-T, Mellanox Connect X4 LX 2x25GbE SFP28 (Except XC640-4i and XC740xd-12R; only compatible with CX4 LX) Optional Network Interface Cards (Max 2 for XC640 models and max 6 for XC-740xd models): Intel i350 2x1G-T, Intel i350 4x1G-T (XC640-x only), Intel X550 2x10G-T, Intel X710 2x10G SFP+, Mellanox Connect X4 LX 2x25G SFP28 (except XC640-4i and XC740xd-12R)						Intel X520 (82599ES) Dual Port 10GbE SFP+ LOM ² , 10GbE and 1GbE Dual Port NIC available

Platforms and hypervisors or AOS	VMware ESXi 5.5 U3	VMware ESXi 6.0 (U1 and U2)	VMware ESXi 6.5.0a	Microsoft Windows Server 2012 R2 SE, DE	Microsoft Windows Server 2016	Nutanix AHV	AOS 5.1.3 or later
XC640-4, XC-640-4i		X	X	X	X (except XC640-4i)	X	X
XC640-10		X	X	X	X	X	X
XC740xd-12		X	X	X	X	X	X
XC740xd-24		X	X	X	X	X	X
XC740xd-12C						X	X
XC740xd-12R						X	X
XC6320-6	X	X	X	X		X	X

Dell EMC XC Series support and deployment services

Dell EMC's trusted ProDeploy and ProSupport offerings encompass the full lifecycle experience for XC Series customers. ProDeploy provides full service installation and configuration of both hardware and system software by Dell EMC certified deployment engineers. The ProSupport teams for XC Series are specially trained to address the needs of HCI customers. Automated proactive and predictive tools and technologies help avoid issues and get faster resolution. ProSupport experts are always accessible 24x7x365 by phone, email, chat and social media across 124 countries and 55 languages served by more than 1,000 parts distribution centers.

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell EMC for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell EMC Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell EMC Sales Representative for more information.

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