Technical Preview: XC Series with Microsoft Hyper-V 2016 Support

XC Series

The XC Series is an ideal solution for midsize customers who want to run virtualized workloads on hyper-converged infrastructure with Nutanix software and their choice of hypervisor, such as Windows Hyper-V. HCI environments are becoming increasingly popular, especially for Microsoft workloads including SQL, Exchange, and SharePoint. More and more customers recognize that HCI appliances are not a new technology but have become a mainstream technology.
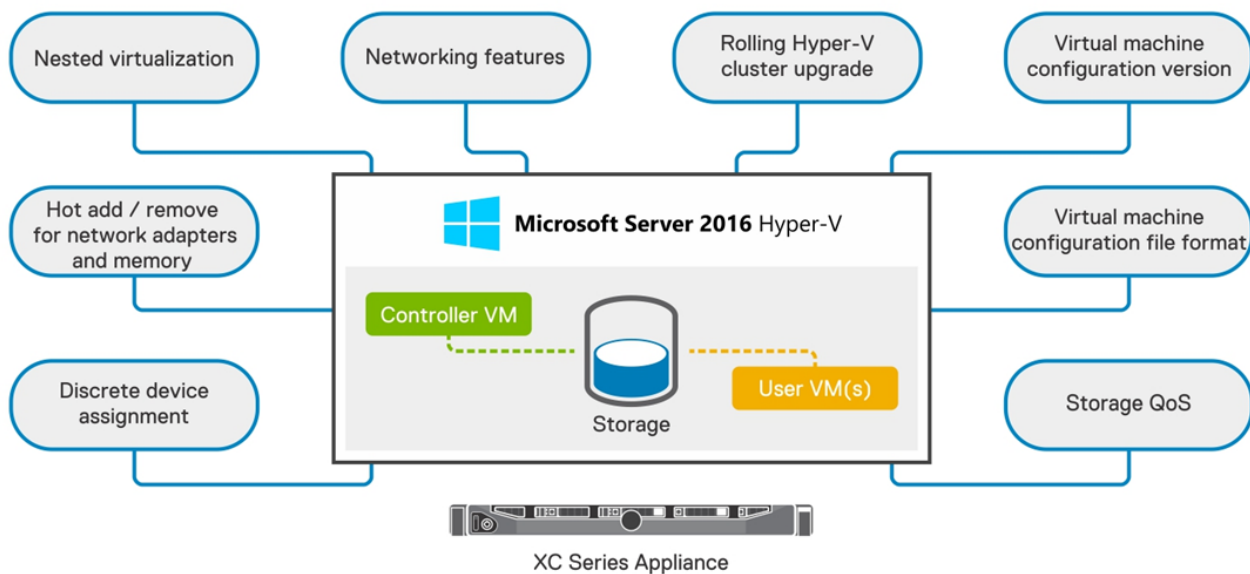
XC Series brings the HCI appliance benefits of flexibility, affordability, ease of scale, and a fully modern architecture including cloud to Microsoft environments with flexible hardware options and simple management.

Note: features described in this document are part of a future release from Dell EMC XC Series - based on Nutanix AOS 5.5 that will be released soon.

XC Series with Windows Hyper-V 2016

Customers are upgrading their environments to Windows Server 2016 drawn by advances in cloud readiness, performance, productivity, and business safeguards.

With added support of Hyper-V 2016 on XC Series customers will benefit from newly added features in Hyper-V on Microsoft Windows 2016 server.
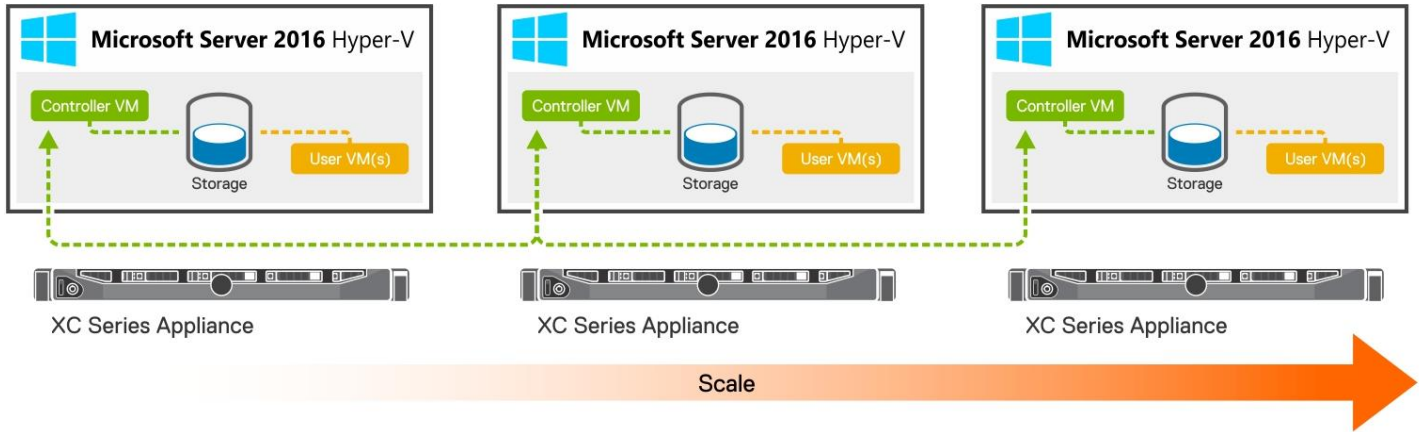

Features of Hyper-V 2016 on XC Series appliances

Table 1   Detail information on features highlighted above in Hyper-V on Microsoft Windows Server 2016.

Feature	Description/Advantage
Discrete device assignment	This feature lets you give a virtual machine direct and exclusive access to some PCIe hardware devices. Using a device in this way bypasses the Hyper-V virtualization stack, which results in faster access.
Hot add/remove for network adapters and memory	You can now add or remove a network adapter while the virtual machine is running, without incurring downtime. Supported on Gen2 VM only. You can also adjust the amount of memory assigned to a virtual machine while it's running, even if you haven't enabled Dynamic Memory.
Nested virtualization	This feature lets you use a virtual machine as a Hyper-V host and create virtual machines within that virtualized host.
Networking features	Neworking Features add include Remote direct memory access (RDMA), Virtual machine multi queues (VMMQ) and QoS.
Rolling Hyper-V cluster upgrade	This allows you to upgrade the cluster without downtime.
Virtual machine configuration version	The version represents the compatibility of the virtual machine's configuration, saved state, and snapshot files with the version of Hyper-V.
Virtual machine configuration file format	Virtual machine configuration files use a new format that makes reading and writing configuration data more efficient. The format also makes data corruption less likely if a storage failure occurs.
Storage QoS	You can now create storage QoS policies on a Scale-Out File Server and assign them to one or more virtual disks on Hyper-V virtual machines. Storage performance is automatically readjusted to meet policies as the storage load fluctuates.

For details regarding all new features in Hyper-V on Microsoft Server 2016 go to:

https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/what-s-new-in-hyper-v-on-windows/

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Existing XC Series Hyper-V 2012 R2 customers can take advantage of unique one-click upgrade capabilities built into Nutanix Prism as they upgrade to Windows Server 2016. XC Series customers running Hyper-V 2016 environment will experience less CPU usage on CVM resulting in better VM density to Hyper-V as well as better storage performance.

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