



Citrix Cloud with Dell EMC XC Core XC740xd System and Dell EMC XC Core XC640 System

VDI Deployment Guide



Introduction

Overview:

This Deployment Guide provides a technical overview of the deployment of a Citrix Ready HCI Workspace Appliance in a Dell EMC XC 640 Core or Dell EMC XC 740xd Core based environment. The solution is tested and validated through the Citrix Ready HCI Workspace Appliance Program. The guide will help users deploy a turnkey, hybrid cloud, app and desktop infrastructure in a matter of hours. By enabling the Citrix Ready HCI Workspace Appliance to connect to Citrix Cloud in order to automate the setup and maintenance of Citrix Virtual Apps and Desktops Service (formerly Citrix XenApp and XenDesktop Service), typical challenges related to the configuration and ongoing management of a desktop virtualization environment will be greatly reduced.

Audience:

This guide is intended for IT administrators, implementers and architects who are defining a deployment approach for their IT infrastructure. All readers are assumed to be familiar with virtualization technology, storage, servers, hyper-converged infrastructure, and associated components.

Disclaimer:

This guide is not intended to constitute legal advice. The customer should consult with their legal counsel regarding compliance with U.S., and other country-specific industry laws and regulations, and the intended use of Citrix products and services. Citrix makes no warranties, express, implied, or statutory, as to the information in this document.

Deployment

Citrix Cloud pre-requisites

1. <https://docs.citrix.com/en-us/xenapp-and-xendesktop/service.html#start>
2. <https://docs.citrix.com/en-us/xenapp-and-xendesktop/service/install-configure.html>

Environment pre-requisites

1. Relevant hardware
 - a. Indicative hardware configuration

Enterprise Platform	Platform Configuration	CPU	Memory	RAID Controller	HD Configuration	Network
XC 740xd	X16	Gold 5120 14 Core, 2.2GHz	384 GB @2666 MT/s Running @2400 MT/s	Dell HBA 330 Adapter	2 X 32GB SanDisk MicroSD Deployment 2 X BOSS Cards Hypervisor 2 x 900GB Toshiba 12 Gbps SAS SSD 2.5" 6 x 1.2 TB Seagate 6 Gbps SAS HDDD 2.5"	Mellanox ConnectX-4 LX 25GbE SFP Rack NDC

2. Functioning Storage Cluster, with relevant Hypervisor
 - a. [Citrix Virtual Apps and Desktops Service system requirements](#)
 - b. Indicative software versions as follows

Enterprise Platform	Nutanix AOS	Nutanix Cluster	Hypervisor
XC 740xd	5.5.3.1	3.5.2	XenServer 7.1.0

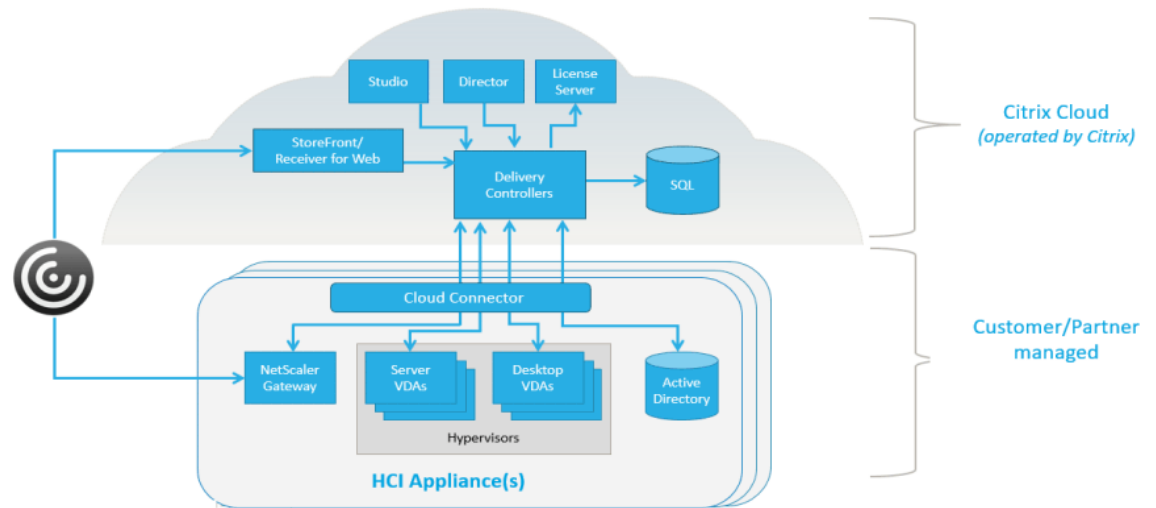
3. Required accounts
 - a. [Citrix Cloud](#)
 - b. [Nutanix Portal](#)
4. Communication Requirements
 - a. [Internet Connectivity Requirements](#): note - minimum connectivity requirement is open HTTP port 443
5. Citrix Cloud connector Initial Configuration
 - a. High-level technical summary of Citrix Cloud Connector including system requirements information is available at [Citrix Cloud Connector Technical Details](#)
 - b. Connector Creation: Numerous methods are available to deploy cloud connector components. [Citrix Cloud Connector Installation](#)
 - c. Connecting to Citrix Cloud: Use the XC Prism console “Connect to Citrix Cloud” wizard technology, as outlined in the [deployment steps](#)

6. Cloud Connector OS Image preparation
 - a. Follow the [Citrix Cloud Connector Installation](#) and Nutanix's [Connect to Citrix Cloud](#) recommendations for Cloud connector OS image preparation
 - b. Indicative Image requirements are outlined in the following deployment steps

Architecture and Overview of Citrix Cloud and Citrix Virtual Apps and Desktops service:

Connecting HCI to Citrix Cloud Management

Cloud-based management, local resources – less to deploy, simpler, faster



- <https://docs.citrix.com/en-us/xenapp-and-xendesktop/service.html>
- https://docs.citrix.com/en-us/xenapp-and-xendesktop/current-release/technical-overview.html#par_anchortitle_2039

Deployment steps of appliance with Citrix Virtual Apps and Desktops service:

1. Steps involved in setting up the HCI cluster out of the box.
 - a. Deployment of the XC Core environment (including XC storage fabric, XC management environment and Citrix Hypervisor components) is by an appropriate Dell EMC partner. The deployment steps shown below assume that this deployment has been completed. Since Citrix Hypervisor is an integral part of the Citrix Ready HCI Workspace Appliance program, it should be noted that Citrix Hypervisor doesn't support VLAN tags, so follow Nutanix best practice to perform installation on flat network configuration.
2. Connecting the appliance to Citrix Cloud using API access
 - a. Follow the "[Connect To Citrix Cloud Guide](#)" from Nutanix to install and connect Cloud connector to the Citrix Cloud.
 - b. Nutanix Video Guide - [Citrix Cloud Workspace Appliance on Nutanix](#)
3. Configuring the template VM in preparation for Citrix Cloud connector deployment (including OS install and VM tools + patching recommendations)

Windows OS	Reference	Image*	Software Configuration/ Installation *	VM Image/ Template specification.
Windows Server 2008 R2 or Windows Server 2016	Citrix Cloud Connector Technical Details Citrix Cloud Connector Installation Connect To Citrix Cloud Guide	Do not join the image to domain prior to automated connector deployment	1. Sync time settings 2. Turn off IE Enhanced Security Configurations 3. Turn on Windows Update and bring patch level up to date 4. Install the relevant Hypervisor tool agent i.e. Citrix Hypervisor Tools	vCPU 1 * Ram 4GB Disk 40GB * Note > 1 vCPU may cause automated deployment to fail.

* Pre requisite for Image preparation for Nutanix “Connect to Citrix Cloud” automated wizard deployment.

4. Steps for creating Site, Delivery Group, and Machine Catalog

a. Citrix Video Guides

[Create a Resource Location](#)

[Install a Citrix Virtual Delivery Agent](#)

[Create a Machine Catalog](#)

[Create a Delivery Group](#)

b. Note the Citrix Virtual Desktop (formerly Citrix XenDesktop) Controller address required during configuration, refers to the address of the Cloud Controller, previously set up. The Connector acts as a proxy for the Citrix Virtual Desktop Controller hosted on the Citrix Cloud.

5. Managing, scaling and monitoring the VDI Infrastructure from the single pane of glass management tool

a. Citrix Video Guides

Launch apps and desktops from your workspace

[Citrix Virtual Apps and Desktops Service demo](#)

Partner Solution

The Dell EMC XC family including XC Core integrates Dell EMC 14th generation PowerEdge servers with Nutanix software to offer one of the industry's most versatile and scalable hyper-converged infrastructure HCI platforms. By supporting a choice of hypervisors, XC Family devices can be deployed quickly for all virtualized workloads to reduce management complexity and total cost of ownership.

The Dell EMC XC Family offers a number of compelling advantages for customers who have committed to Nutanix software:

1. The XC platform includes Dell EMC IP such as Lifecycle Management (LCM), enabling streamlined deployment.
2. The XC platform is based on industry-leading and proven Dell EMC PowerEdge servers that are configured and optimized for HCI and Nutanix software. These latest 14th generation PowerEdge servers were built with more than 150 custom requirements specifically for software-defined storage SDS.
3. The XC Family comes with an ecosystem that includes reference architectures, network validation tools and integration with other Dell EMC and Microsoft technologies, including Pivotal, Avamar, Data Domain and Azure.
4. Customers can rely on global service and support that includes support centers and teams in 167 countries, over a thousand spare parts depots around the world, and technical experts fluent in 55 languages.

Summary and conclusion

The deployment process outlined above illustrates the ease of deployment that is available through the combination of Citrix Cloud and Dell EMC XC Core. This deployment can easily be carried out by anybody with an IT generalist level skillset and combined with the scale-out capabilities of both XC Core and Citrix Cloud based environments, this offers an “easy button” for customers who are considering a Citrix based desktop virtualization environment combined with a Nutanix based HCI environment

Addendum

- [About Dell EMC XC Core](#)
- [Dell EMC XC Core FAQ](#)



About Citrix Ready

Citrix Ready identifies recommended solutions that are trusted to enhance the Citrix Delivery Center infrastructure. All products featured in Citrix Ready have completed verification testing, thereby providing confidence in joint solution compatibility. Leveraging its industry-leading alliances and partner ecosystem, Citrix Ready showcases select trusted solutions designed to meet a variety of business needs. Through the online catalog and Citrix Ready branding program, you can easily find and build a trusted infrastructure. Citrix Ready not only demonstrates current mutual product compatibility, but through continued industry relationships also ensures future interoperability. Learn more at citrixready.citrix.com.

About Dell EMC

Dell EMC, a part of [Dell Technologies](#), enables organizations to modernize, automate and transform their data center using industry-leading converged infrastructure, servers, storage and data protection technologies. This provides a trusted foundation for businesses to transform IT, through the creation of a [hybrid cloud](#), and transform their business through the creation of cloud-native applications and big data solutions. Dell EMC services customers across 180 countries – including 98 percent of the Fortune 500 – with the industry's most comprehensive and innovative portfolio from edge to core to cloud.

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