

## Course Overview

# VMware Horizon 7: Install, Configure, Manage [V7.10]

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## Overview

This five-day, hands-on course gives you the skills to deliver virtual desktops and applications through a single virtual desktop infrastructure platform. This course builds your skills in installing, configuring, and managing VMware Horizon® 7 through a combination of lecture and hands-on labs. You learn how to configure and deploy pools of virtual machines, how to manage the access and security of the machines, and how to provide a customized desktop environment to end users.

## Product Alignment

- VMware Horizon 7.10
- VMware User Environment Manager™ 9.9
- App Volumes Manager 2.18

## Delegates will learn how to

By the end of the course, you should be able to meet the following objectives:

- Recognize the features and benefits of VMware Horizon
- Install and configure View Connection Server
- Create and optimize Windows VMs to create VMware Horizon desktops
- Describe the purpose of Horizon Agent
- Compare the remote display protocols that are available in VMware Horizon
- Configure and manage the Horizon Client systems and connect the client to a VMware Horizon desktop
- Configure, manage, and entitle automated pools of full VMs
- Configure, manage, and entitle pools of instant-clone desktops and linked-clone desktops
- Install and configure View Composer
- Outline the steps and benefits for using TLS CA signed certificates in VMware Horizon environments
- Use the role-based delegation to administer a VMware Horizon environment
- Configure secure access to VMware Horizon desktops
- Understand and create Remote Desktop Services RDS desktops and application pools
- Install and configure VMware App Volumes™ to deliver and manage applications
- Deploy VMware Dynamic Environment Manager for user and application management
- Install and configure a Just-in-Time Management Platform JMP server for managing JMP components
- Describe VMware Dynamic Environment Manager™ Smart Policies
- Use the command-line tools available in View to back up and restore the required VMware Horizon databases
- Manage the performance and scalability of a VMware Horizon deployment
- Identify the benefits of the Cloud Pod Architecture feature for large-scale VMware Horizon deployments

## Course Outline

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 Introduction to VMware Horizon

- Recognize the features and benefits of VMware Horizon
- Describe the conceptual and logical architecture of VMware Horizon
- Define a use case for your virtual desktop and application infrastructure
- Convert customer requirements to use case attributes

### 3 Horizon View Connection Server

- Recognize VMware Horizon reference architecture
- Identify the recommended system requirements for View Connection Server
- Identify the recommended virtualization requirements for a View Connection Server instance
- Access Horizon Manager
- License VMware Horizon components
- Outline the steps for the initial configuration of View Connection Server
- Describe the capabilities that Horizon Administrator provides for monitoring the health of a VMware Horizon deployment
- Use the dashboard to quickly focus on the details of a problem
- Access the settings and status of a pool
- Access the settings and status of a specific machine and the resources controlled by vCenter Server that the VM uses
- Identify the benefits of using the VMware Horizon Help Desk tool

### 4 VMware Horizon Desktops

- Outline the process and choices to set up VMware Horizon VMs
- Assign vCPUs and RAM
- Create Windows VMs
- Configure ESXi host virtual switches
- Optimize the performance of VMs
- Compare the remote display protocols that are available in VMware Horizon
- Outline the steps to enable a machine for remote access from VMware Horizon® Client™
- Describe BLAST
- Describe the purpose of Horizon Agent
- List the steps to prepare a VM before installing Horizon Agent
- Outline the configuration choices when installing Horizon Agent
- Use the Horizon Skype for Business Virtualization Pack

### 5 VMware Horizon Pools

- Identify the steps to set up a template for desktop pool deployment
- List the steps to add desktops to the View Connection Server inventory
- Define user entitlement
- Describe how information found on the Users and Groups page is used to control and monitor VMware Horizon users
- Explain the hierarchy of global, pool-level, and user-level policies
- List the VMware Horizon Group Policy ADMX files

### 6 VMware Horizon Client Options

- Describe the requirements for a Horizon Client installation on a Windows system
- Explain USB redirection and options
- Describe the shared folders option
- Describe the different clients and their benefits
- Discuss the benefits of the Virtual Printing feature
- Explain the architecture of the Virtual Printing feature
- List the steps to install the Virtual Printing feature
- Configure the Virtual Printing feature
- Discuss the benefits of the location-based printing feature
- Identify use cases where location-based printing is desirable
- List the client system parameters that can be used to assign a printer

### 7 Creating Automated Desktop Pools

- Describe how an automated pool operates
- Compare dedicated-assignment and floating-assignment pools
- Outline the steps to create an automated pool

### 8 Configuring and Managing Linked-Clone Desktop Pools

- Describe VMware linked-clone technology
- Explain why both a parent VM and a snapshot must be used to create linked clones
- Outline the system requirements for View Composer

- Describe the relationship between a vCenter Server instance and a View Composer instance
- Identify the View Composer objects in a vCenter Server inventory
- Describe the preparation required for installing View Composer
- Outline the steps to install View Composer
- Outline the necessary steps to set up an automated desktop pool that uses linked clones
- Compare the purpose of parent and replica VMs
- Describe the additional steps that are required for linked clones that are not necessary for other automated pools
- Discuss the merits of using tiered storage for replica and linked clones
- Compare the benefits of vSAN and tiered storage
- Compare the recompose, refresh, and rebalance management operations for linked clones
- Describe the management operations for persistent disks

## 9 Creating and Managing Instant-Clone Desktop Pools

- Describe instant clones
- List the advantages of instant clones
- Differentiate between View Composer linked clones and instant clones
- Describe the different types of instant-clone VMs
- Recognize the use of folders in delegating pool administration
- Explain how instant clones work
- Describe instant clone desktop pools
- Determine the requirements for an instant-clone desktop pool
- Identify the steps used to create an instant clone
- Set up an automated pool of instant clones
- Enable instant clones and authorize a VMware Horizon administrator account for use by ClonePrep
- Update the image of an instant-clone desktop pool using the push image operation

## 10 VMware Horizon Authentication and Certificates

- Compare the authentication options that View Connection Server supports
- Explain the purpose of roles and privileges in VMware Horizon
- Explain how folders are used to delegate pool administration
- Describe a permission and its components
- Outline the steps to create a Horizon administrator
- List the management options for permissions and folders
- Outline the steps to create a custom role
- List some of the best practices for configuring Horizon Administrator
- Describe the purpose of using TLS certificates for VMware Horizon
- Outline the benefits of using TLS certificates signed by a CA
- Outline the steps to set up TLS certificates

## 11 Managing VMware Horizon Security

- Compare tunnels and direct connections for client access to desktops
- Identify the benefits of using Unified Access Gateway in the DMZ
- Identify the tunnel endpoints when the security gateway is not used
- Describe a direct connection in a VMware Horizon environment
- List the advantages of direct connections
- Describe how direct connections are enabled
- Discuss the benefits of using VMware Unified Access Gateway™
- List the two-factor authentication options that are supported by Unified Access Gateway
- Describe the situations in which you might deploy Unified Access Gateway with one, two, or three network interfaces

## 12 Profile Management Using User Environment Manager

- Identify the VMware Dynamic Environment Manager functional areas and their benefits
- Prepare infrastructure for VMware Dynamic Environment Manager
- Outline the steps that are required to install and configure VMware Dynamic Environment Manager components
- Manage user personalization and application configurations using the VMware Dynamic Environment Manager management console and application profiler
- Outline the VMware Horizon Smart Policies available when using VMware Dynamic Environment Manager in the Horizon environment

## 13 Creating RDS Desktop and Application Pools

- Explain the difference between an RDS desktop pool and an automated pool
- Access a single application by using the RDS application pool

- Compare and contrast an RD Sessions Host pool, a farm, and an application pool
- Create an RDS desktop pool and an application pool
- Identify the load-balancing options for Remote Desktop Session Hosts 6.2
- Use View Composer linked-clone technology to automate the build out of RDSH farms
- Use instant-clone technology to automate the build out of RDSH farms
- Describe the default load-balancing procedure for RDSHs in a farm
- Describe the alternative load-balancing feature for RDSHs that optimizes placement of sessions
- Explain how load values and load preferences are used by View Connection Server to make placement decisions for new sessions
- Explain how anti-affinity rules affect session placement decisions
- Identify the hardware, software, and network requirements for all integrated components.

#### 14 Provisioning and Managing Application Using App Volumes

- Explain how App Volumes works
- Identify the features and benefits of App Volumes
- Identify the interface elements of App Volumes
- Install and configure App Volumes

#### 15 Just-in-Time Management Platform and VMware Horizon

- Identify the benefits of Just-in-Time Management Platform JMP
- List the JMP and Horizon 7 components
- Install and configure a JMP server
- Identify App Volumes deployment considerations
- Identify VMware Dynamic Environment Manager deployment considerations

#### 16 Command-Line Tools and Backup Options

- Describe key View Connection Server features that are available as command-line options with the vdmadmin command
- Explain the purpose of kiosk mode for client systems and how it is configured
- Explain why you limit the domains that View Connection Server displays to users as they attempt to authenticate
- Identify the log locations for each VMware Horizon component
- Collect Horizon Client and Horizon Agent log files
- Describe the backup options for VMware Horizon databases
- Explain the potential problems related to not synchronizing databases
- Outline solutions to handle orphaned linked clones

#### 17 VMware Horizon Performance and Scalability

- Describe the purpose of a replica connection server
- Compare a replica server to a standard connection server
- Explain how multiple View Connection Server instances in a pod maintain synchronization
- List several best practices for multiserver deployment in a pod
- Describe how a load-balancing capability might improve VMware Horizon performance
- Describe the benefits of the Cloud Pod Architecture feature for large-scale VMware Horizon deployments
- Establish a session with a desktop machine in a different pod by logging in to a local View Connection Server instance
- Compare the purpose of the global LDAP instance and the local LDAP instance
- Describe the purpose of interpod communication and the View Interpod API VIPA
- Create global entitlements for accessing Horizon Desktops

### Prerequisites

In order to facilitate your VMware e-courseware provision Nexus will share your name and email address that which we have registered for you on our business systems with VMware. VMware will then send you directly the details of your e-courseware access no less than 48 hours before your course is due to take place. VMware will not use these details for any other purpose than provisioning you with your e-courseware.

Please note that these details are held by VMware outside of the EU. If you have an existing VMware MyLearn account it is imperative that you notify Nexus of the email address you have registered to this account. Should you have any questions or concerns about this please contact your Nexus account manager.

### Technical Pre-requisites

Customers attending this course should have, at a minimum, the following VMware infrastructure skills:

- Use VMware vSphere® Web Client to view the state of virtual machines, datastores, and networks
- Open a virtual machine console on VMware vCenter Server® and access the guest operating system
- Create snapshots of virtual machines
- Configure guest customization specifications
- Modify virtual machine properties
- Convert a virtual machine into a template
- Deploy a virtual machine from a template

Attendees should also have the following Microsoft Windows system administration experience:

- Configure Active Directory services, including DNS, DHCP, and time synchronization
- Restrict user activities by implementing Group Policy objects
- Configure Windows systems to enable Remote Desktop Connections
- Build an ODBC connection to an SQL Server database

## Special Notices