CXD-203: Managing App and Desktop Solutions with Citrix XenDesktop 7

Description
The Managing App and Desktop Solutions with Citrix XenDesktop 7 course provides students with the skills required to effectively support a Citrix application and desktop virtualization solution in a Windows Server 2012 environment. This course is currently available through select Citrix Authorized Learning Centers (CALCs).

During this course, students will learn how to successfully manage, monitor, support and troubleshoot a XenDesktop 7 solution, which includes growing the implementation to accommodate changes in the environment (adding new applications, new users, new desktops, and new policies) and troubleshooting common issues.

Who should enroll in this course?
This course is recommended for Operators and Administrators that need to manage an existing XenDesktop 7 solution.

Preparatory Recommendations
Before taking this course, Citrix recommends that students have:
- An understanding of server, desktop and application virtualization concepts
- Experience with Windows Server 2012, specifically:
    - Active Directory
        - Domains
        - Groups and User Accounts
        - Organizational Units
        - Group Policy Objects
- Experience with Windows 7 and Windows 8 user interfaces
- Basic storage knowledge (manage existing storage types, add new storage)
- Basics of Citrix licensing
- Familiarity with at least one hypervisor (XenServer, Hyper-V, or vSphere)
- Basic understanding of the different types of profiles (local, roaming, mandatory)
- Completed the following courses or can demonstrate equivalent knowledge:
    - CXD-102 Introduction to XenDesktop 7

Key Skills
Upon successful completion of this course, learners are able to:
- Understand the XenDesktop 7 architecture, components, and communication
- Delegate administration and manage licenses
- Manage and monitor their hypervisor
- Manage applications and desktops in a XenDesktop environment
- Manage StoreFront and access for external end users
- Manage policies and profiles
- Manage sessions, sites, and users
- Manage printing
- Manage Provisioning Services and Personal vDisks

Instructional Method
This course is offered as an instructor-led course with demonstrations and the practical application of concepts through hands-on exercises in a live lab environment.

Course Length
4 days

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Certification Preparation

In addition to field experience, this course prepares candidates for the Managing XenDesktop 7 Solutions exam. By passing the Managing Citrix XenDesktop 7 Solutions exam, candidates will gain the new Citrix Certified Associate – Virtualization (CCA – V) certification. Go here to learn more about the new Citrix Certifications.

Lab Activities

ILT course offer lab access during the duration of the course.

Topic Outline

Module 1: Understanding the Architecture of a XenDesktop Solution

- XenDesktop Architecture Overview
- User Layer
    - Citrix Receiver
- Access Layer
    - Citrix NetScaler
    - Citrix StoreFront
    - Discussion Question
- Control Layer
    - Delivery Controller
    - Machine Creation Services
    - Citrix Provisioning Services
    - Hypervisor
    - Virtual Delivery Agent (VDA)
    - Discussion Question
- Resource Layer
    - Applications
    - Operating System Image
    - Citrix User Profile Management (UPM)
    - Policies
    - Personal vDisk
- Management Layer
    - Citrix Studio
    - Citrix Director
    - Discussion Question
- XenDesktop Site
- Ports

Module 2: Managing Licenses and Delegating Administration

- Managing Licenses in Studio
    - Discussion Question
    - Types of Licenses
    - Downloading, Allocating, and Importing a License File
    - Discussion Question
    - Adding a License Administrator
- Managing Delegated Administration
    - Administrators
    - Roles
    - Scopes
    - Adding an Administrator
    - Creating a Custom Scope
    - Editing a Custom Scope
    - Creating a Custom Role
    - Editing a Custom Role
    - Editing an Administrator's Permissions
    - Running a Delegated Administration Report
    - Discussion Question
    - Using PowerShell
    - Discussion Question
- Monitoring Configuration Logs
    - Displaying Configuration Log Content

- o Generating Configuration Log Reports
- o Changing Configuration Logging Settings
- o Discussion Question
- Troubleshooting: Managing Licenses and Delegating Administration
- Reinforcement Exercise: Configuring Roles and Scopes

Module 3 - Managing and Monitoring the Hypervisor
- Architecture Overview
- Creating a Virtual Machine from an ISO
    - o Creating a Virtual Machine
    - o Installing Windows
    - o Installing XenServer Tools
    - o Generalizing the Virtual Machine
    - o Creating a Template
- Managing Virtual Machines within a Hypervisor
    - o Creating a Virtual Machine
    - o Taking a Snapshot
    - o Discussion Question
    - o Restoring a Virtual Machine from Sysprep
    - o Copying a Virtual Machine
    - o Discussion Question
    - o Reverting to a Snapshot
    - o Discussion Question
- Adjusting Virtual Machine or Template Resources
    - o Adding Storage to a Virtual Machine or Template
    - o Adjusting the Storage Allocated to a Virtual Machine
    - o Adjusting the Memory Allocated to a Virtual Machine or Template
    - o Adjusting vCPUs Allocated to a Virtual Machine or Template
    - o Removing a Virtual NIC
    - o Adding a Virtual Network Interface Controller (NIC)
    - o Adjusting a Virtual NIC
    - o Activating or Deactivating a Virtual NIC
    - o Discussion Question
- Configuring and Customizing Alerts
    - o Discussion Question
- Troubleshooting: Managing and Monitoring Hypervisors
- Reinforcement Exercise 1: Creating a Virtual Machine Template
- Reinforcement Exercise 2: Completing the Setup Process After Sysprep

Module 4: Managing Desktops and Applications
- Architecture Overview
- Managing Machine Catalogs
    - o Creating New Resource Settings
- Machine Creation Services
- Creating a Machine Catalog
    - o Creating a Machine Catalog for Windows Server
        - ▪ Installing the VDA
    - o Creating a Server OS Machine Catalog
    - o Creating a Machine Catalog for Windows Desktop
        - ▪ Installing the VDA
    - o Creating a Desktop OS Machine Catalog
    - o Creating a Remote PC Access Machine Catalog
- Managing Delivery Groups
    - o Creating a Delivery Group for User Desktops
    - o Creating a Delivery Group for Application Delivery
- Managing Resources
    - o Adding Machines to a Machine Catalog
    - o Updating Desktops in a Machine Catalog
    - o Managing Computer Accounts
    - o Managing Power for Machines in a Desktop OS Delivery Group

- o Reallocating Machines in a Delivery Group
- o Discussion Question
- o Shutting Down and Restarting Desktops
- o Discussion Question
- Deleting Resources
  - o Enabling and Disabling Maintenance Mode
  - o Removing Desktops from Delivery Groups
  - o Deleting a Delivery Group
  - o Deleting Machines from a Machine Catalog
  - o Deleting a Machine Catalog
- Troubleshooting: Managing Desktops and Applications
- Reinforcement Exercise: Delivering Server Desktops

Module 5: Managing StoreFront and External Access
- StoreFront Architectural Overview
  - o StoreFront Components
  - o StoreFront Communication
  - o Discussion Question
- StoreFront Management Console
- Creating a New Store
- Hiding a Store
  - o Discussion Question
- Managing Authentication
  - o Configuring Authentication
  - o Discussion Question
  - o Enabling End Users to Change their Passwords
- Enabling Remote Access to the Store
- Configuring the NetScaler Secure Ticket Authority (STA)
- Creating Endpoint Analysis Policies
  - o Discussion Question
- Managing Delivery Controllers
  - o Adding Delivery Controllers
  - o Removing Delivery Controllers
  - o Discussion Question
- Managing Receiver Updates
  - o Removing a Store
  - o Discussion Question
- Troubleshooting: Managing StoreFront
- Reinforcement Exercise: Creating and Configuring a New Store

Module 6: Managing Policies and Profiles
- Creating Policies Using Studio
- Creating a Policy Using Studio
  - o Unfiltered Policy
  - o Using a Policy Template in Studio
  - o Creating a Policy Using Studio
  - o Applying a Policy Using Studio
  - o Editing a Policy Using Studio
  - o Prioritizing Policies Using Studio
  - o Discussion Question
  - o Creating a Computer Template In Studio
  - o Exporting a Policy Template Using Studio
  - o Importing a Policy Template Using Studio
  - o Obtaining the Resultant Set of Policy Using Studio
- Creating Policies Using Group Policy
  - o Discussion Question
  - o Creating and Applying a Group Policy Object
  - o Editing a Group Policy Object
  - o Using a User Template with Group Policy
  - o Discussion Question

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- o Importing a Policy Template with Group Policy
- o Exporting a Policy Template with Group Policy
- o Prioritizing a Policy Using Group Policy
- o Discussion Question
- Policy Precedence (Studio vs. Group Policy Objects)
  - o Obtaining the Resultant Set of Policy Using Group Policy Objects
- Troubleshooting: Managing Policies
- Managing User Profiles
- Configuring Folder Redirection
  - o Managing Profile Settings Using Citrix Policies
  - o Resolving Conflicting Profiles
  - o Streaming User Profiles
  - o Discussion Question
- Troubleshooting: Profile Management
- Reinforcement Exercise 1: Working with Policies
- Reinforcement Exercise 2: Working with Profiles

Module 7: Managing Sessions, Sites, and Users with Director
- Director Overview
  - o Accessing Director
- Monitoring within the Director Dashboard
  - o Monitoring Infrastructure
  - o Monitoring Connected Sessions
  - o Monitoring Logon Duration Averages
  - o Monitoring Machine and User Connection Failures
- Monitoring and Managing User Sessions
  - o Viewing User Sessions
  - o Searching for a User
  - o Monitoring User Applications
  - o Monitoring User Machine Processes
  - o Managing a User's Machine Power Status
  - o Enabling or Disabling Maintenance Mode
  - o Resetting a User's Profile
  - o Discussion Question
  - o Monitoring HDX Channels
  - o Sending a Message to a User
  - o Shadowing a User Session
  - o Disconnecting a User Session
  - o Logging Users Off Sessions
  - o Monitoring Historical Trends
- Troubleshooting: Managing Sites, Sessions, and Users
- Reinforcement Exercise: Using Director

Module 8: Managing Printing
- Printing in a XenDesktop 7 Solution
- Managing Printing
- Default Printing Behavior
- Configuring Client Printing
  - o Modifying Client Printer Auto-Creation
  - o Adding Session Printers
- Managing Printer Drivers
  - o Automatic Installation of In-Box Printer Drivers
  - o Configuring Printer Driver Mapping and Compatibility
  - o Universal Printer Driver (UPD)
  - o Controlling Universal Printing Behavior
- Optimizing Printing Performance
  - o Configuring Printing Optimization
  - o Setting Up and Managing the Universal Print Server
- Troubleshooting: Managing Printing

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- Reinforcement Exercise: Managing Printing

Module 9: Managing Provisioning Services and Personal vDisks
- Citrix Provisioning Services
- Why Choose Machine Creation Services or Provisioning Services?
- Provisioning Services Overview and Architecture
  - Discussion Question
- Navigating the Provisioning Services Console
  - Creating the vDisk File
  - Discussion Question
- Migrating from Machine Creation Services to Provisioning Services
  - Creating a Provisioning Services Master
  - Installing the VDA
  - Preparing the Master Image for Provisioning Services
  - Creating the Master vDisk Image Using the Imaging Wizard
  - Creating the Provisioning Services Target Devices
- Creating a New Machine Catalog
  - Assigning a Machine Catalog to a Delivery Group
- Updating vDisks
  - Updating a vDisk
  - Promoting Updating Versions
  - Discussion Question
  - VHD Chain of Differencing Disks
  - Merging VHD Differencing Disks
- Troubleshooting: Personal vDisks and Provisioning Services
- Reinforcement Exercise: Provisioning Services