

## CXD-202-1 Citrix XenDesktop 5 Administration

This course provides the foundation necessary for administrators to effectively centralize and manage desktops in the datacenter and deliver them as a service to users anywhere. Students will learn how to select a desktop delivery model for each user group based on their needs, build proof-of-concept and production XenDesktop environments, assign virtual desktops to users and customize the user experience through policies. This course also provides instruction on how to build a Provisioning services farm to enable single-image desktop management, and how to host virtual machines on the client device using Citrix XenClient.

### Audience

This course is designed for IT professionals, such as server, network and system administrators, system engineers, analysts, consultants, architects and Citrix Partner Network members.

### Preparatory Recommendations

Before taking this course, Citrix recommends that students have the following:

- A basic knowledge of the purpose and goals of virtualization technology
- An understanding of computing architecture, including network and storage devices, device drivers and operating systems
- Basic experience installing and administering Windows Server 2008 R2
- Basic understanding of server, desktop and application virtualization concepts

### Key Skills

Upon completion of this course, students are able to:

- Determine the best Flexcast delivery model for each user group.
- Build a XenDesktop proof-of-concept environment.
- Configure a XenServer host for desktop delivery.
- Build and configure a production XenDesktop site.
- Manage virtual desktops as a single entity by creating a desktop catalog.
- Modify a desktop image without impacting user productivity.
- Restrict or allow certain XenDesktop features using policies.
- Monitor site activity and troubleshoot issues in Desktop Director.
- Install and configure Provisioning services.
- Copy a desktop image to a virtual disk that can be streamed to virtual and physical target devices.
- Identify the XenClient infrastructure.
- Install and configure Synchronizer for XenClient.

### Instructional Method

This course is available in either classroom or self-paced online formats, and includes access to a live lab environment, as well as demonstrations and the practical application of concepts through hands-on exercises.

### Course Length

30 hours or 5 days

### Certification Preparation

This course prepares students for the CCA for Citrix XenDesktop 5.

## Registration

For more information and to register for this course, please go to [www.citrixeducation.com](http://www.citrixeducation.com).

## Topic Outline

Provided is the outline for CXD-202-1.

### Module 1: Introduction and Course Overview

- Course Overview
- Course Outline
- Connect with Citrix Education

### Module 2: Introducing XenDesktop

- Overview
- Five Core Strengths of XenDesktop
- Desktop Virtualization
- XenDesktop Product Family
- FlexCast
- Use Cases
- Virtual Desktop Models
- HDX Technologies
- Hosted Desktop Delivery
- Quick Deploy
- Quick Deploy System Requirements

### Module 3: Configuring the Hypervisor for Desktop Delivery

- Overview
- Virtualization
- Virtualization Components
- Hypervisors
- Hypervisor Role in Desktop Delivery
- Windows Virtual Machine Architecture
- Installation from an ISO
- To Create an ISO Library
- Windows Virtual Machine Device Support
- Windows Virtual Machine Creation
- XenServer Tools
- Templates and Life-Cycle Operations
- Virtual Machine Templates
- To Provision a New Virtual Machine Using a Template
- Virtual Machine Export and Import
- Virtual Machine Duplication
- Snapshots
- Virtual Machine Operations
- XenConvert
- To Convert a Server or Desktop to a Virtual Machine
- Virtual Machine Resource Management
- Events and Alerts
- Resource Pools
- Virtual Machine Movement
- Network Components and Architecture
- External Networks
- Internal-only Network
- NIC Bonds
- To Create a NIC Bond in XenCenter
- VLANs

- Storage
- Storage Repositories
- Remote Storage
- Storage Capability Comparison
- Troubleshooting Hypervisor Issues

#### **Module 4: Installing and Configuring XenDesktop**

- Overview
- XenDesktop Architecture
- Production Site Configuration
- License File Management
- Obtaining License Files
- Security Considerations
- Active Directory Considerations
- Supported Active Directory Environments
- Active Directory-Based Controller Discovery
- Active Directory Objects
- Configuring a XenDesktop Site
- To Configure a XenDesktop Site
- Web Interface
- Web Interface Considerations
- Desktop Delivery Communication Process
- Access Gateway
- ICA Proxy Mode
- Access Gateway Deployment Scenarios
- Access Gateway Communications
- Access Gateway Authentication
- Single Sign-on to Web Interface
- SmartAccess

#### **Module 5: Managing Desktop Catalogs and Groups**

- Overview
- Administration Roles
- To Add an Administrator Account
- Preparing a Virtual Desktop for Delivery
- Virtual Desktop Agent Installation
- Virtual Desktop Agent Wizard Settings
- Manual Firewall Configuration
- Machine Creation Services
- Machine Creation Services Host and Storage Requirements
- Desktop Catalogs
- Machine Types
- Pooled Machine Type
- Dedicated Machine Type
- Existing Machine Type
- Physical Machine Type
- Streamed Machine Type
- Virtual Desktop Updates
- To Modify the Master Virtual Machine
- To Revert to the Previous Master Virtual Machine
- Desktop Groups
- Desktop Group Types
- Desktop Group Examples
- To Create a Desktop Group
- Power Management
- Pools and Buffers
- To Configure Power Management

- Troubleshooting Desktop Catalog and Group Issues

### **Module 6: Customizing the User Experience**

- Overview
- User Device Types
- Display Modes
- Citrix Receiver
- Citrix Receiver for Windows
- Citrix Receiver for Windows System Requirements
- Citrix Receiver for Macintosh
- Citrix Merchandising Server
- Citrix Merchandising Server Architecture
- Profile Management
- User Profiles
- User Profile Types
- Redirecting User Data
- Managing User Profiles
- Profile Management Logon Process
- To Enable Profile Management
- FlexCast for Apps
- Application Delivery Method
- XenDesktop Policies
- Policy Creation
- To Create a Policy
- Policy Settings
- Policy Setting Best Practices
- Policy Prioritization
- Troubleshooting Customization Issues

### **Module 7: Monitoring XenDesktop Sites**

- Overview
- Desktop Director
- Installing Desktop Director
- Accessing Desktop Director
- Desktop Director Pages
- Filters
- Searching for a User or Machine
- User and Machine Management
- Managing Machines
- Managing End Users
- User Shadowing
- To Shadow a User
- Troubleshooting Site Monitoring Issues

### **Module 8: Streaming Desktops to Virtual and Physical Machines**

- Overview
- Streamed VHDs and Catalogs
- Provisioning Services
- Citrix Provisioning Services Infrastructure
- Citrix Provisioning Services Components
- Key Services
- Provisioning Services Administration
- Installation Planning
- Network Boot Services
- Boot Process
- DHCP Deployment Options

- DHCP Configuration
- Provisioning Services Farm Design
- Farms
- SQL Database Server
- Service Account Permissions
- Sites
- Stores
- Write Caches
- Storage Requirements
- Sample vDisk Storage Requirements
- Provisioning Services Installation
- To Install Provisioning Services
- Provisioning Services Configuration
- To Configure a Provisioning Services Farm
- Store Configuration
- Troubleshooting Provisioning Services Installation and Configuration

### **Module 9: Creating a Shared vDisk**

- Overview
- vDisk Image Modes
- Standard Image Mode
- Difference Disk Image Mode
- Private Image Mode
- Write-Cache Types
- Cache on Server Disk
- Cache on Server Disk: Local Storage
- Cache on Server Disk: Shared Storage
- Cache on Device's Hard Drive
- Cache on Device's Hard Drive: Local Storage
- Cache on Device's Hard Drive: Shared Storage
- Target Device-based RAM Cache
- Target Device RAM
- To Create a vDisk
- Imaging Wizard
- vDisk File Creation
- VHD Format
- vDisk Mounting
- Formatting a vDisk
- Master Target Device
- Boot Order
- Master Target Device Software
- To Create a Windows Master Target Device using the Imaging Wizard
- XenConvert Overview
- To Image Windows Target Devices with XenConvert
- Troubleshooting vDisk Creation Issues

### **Module 10: Administering Provisioning Services Components**

- Overview
- Provisioning Services Hosts in the Console
- Target Device Connections
- Provisioning Services Host Properties
- Target Device Management
- Target Device Collection
- Target Device Views
- Target Device Properties
- Active Directory Integration
- Domain Password Management Process

- Automatic Password Renegotiation
- To Integrate Active Directory
- vDisk Management
- vDisk Properties
- To Create a vDisk File
- To Unassign vDisks from Target Devices
- To Delete a vDisk
- vDisk Locks
- vDisk Backup
- Streamed Desktop Catalogs
- To Create a Streamed Desktop Catalog
- vDisk Updates
- Automatic Update
- Incremental Update
- Autoupdate Tool
- Incremental Update Rollback
- Scheduled vDisk Updates
- vDisk Update Strategies
- Troubleshooting Provisioning Services Issues

### **Module 11: Delivering Local VM Desktops**

- Overview
- Local VM Desktops with XenClient
- XenClient Architecture
- Synchronizer for XenClient
- XenClient Installation
- To Install XenClient
- XenClient Configuration
- Receiver for XenClient
- To Create a Virtual Machine
- XenClient Tools
- Synchronizer Installation and Configuration
- Image Management
- To Upload a Virtual Machine to the Synchronizer
- To Assign Desktops to End Users
- User Management
- To Create a Local User or Group
- To Link an Existing AD User or Group
- Device Management
- XenClient User Experience
- Secure Application Sharing
- Troubleshooting Local VM Desktop Issues