

## CXA-206-1 Citrix XenApp 6.5 Administration

Citrix XenApp 6.5 Administration training course provides the foundation necessary for administrators to effectively centralize and manage applications in the datacenter and instantly deliver them as a service to users anywhere. Learners will receive training for installing and configuring Citrix XenApp 6.5 for Windows Server 2008 R2, Citrix Receiver and plug-ins, as well as for using administrative consoles and tools to configure resources, policies, server and farm settings, printers, virtualized applications and more.

### Audience

This course is intended for IT professionals, such as server, network and systems administrators familiar with Microsoft Windows environments, including Windows 2008 R2 administrators interested in becoming a XenApp administrator. Existing XenApp administrators or systems engineers interested in updating their XenApp skills, receiving Citrix authorized training on XenApp 6.5, or achieving certification for XenApp 6.5 are ideal candidates. Systems engineers, sales engineers, analysts, consultants and architects also are also appropriate candidates for this course.

### Preparatory Recommendations

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

- Familiarity with Microsoft Windows Server 2008 R2
- Experience with Microsoft SQL Server or enterprise database servers
- Experience with Active Directory and Group Policy
- Basic understanding of Microsoft Remote Desktop Services
- Familiarity with application virtualization technologies, such as Citrix application streaming or Microsoft App-V
- Basic understanding of Windows Server networking concepts, such as DNS, IIS®, load balancing, and file and printing services
- Exposure to basic system administration concepts, including logging, software upgrade procedures and high availability operations
- Familiarity with server monitoring tools
- Basic understanding of VPN concepts, including SSL encryption and certificates

### Key Skills

Upon successful completion of this course, learners are able to perform the following:

- Identify the basic architecture and high level functionality of XenApp and farm components
- Configure License Administration console ports and administrators, install the Citrix License Server, and import license files into the console
- Make installation decisions appropriate for an environment, and install and configure XenApp using the Server Role Manager and Server Configuration tool
- Add and configure worker groups, administrative accounts, and permissions, and log administrative changes
- Install and configure Web Interface, create and customize Web Interface sites, and configure client delivery
- Publish applications, content, and desktops for users.
- Configure applications for streaming to servers and the desktops of Windows user devices
- Create and configure Citrix policies, applying filters and using policy modeling tools.
- Create and assign load evaluators and implement load balancing policies
- Identify the different session optimization display settings, HDX settings, and profile management components
- Identify self-service application technologies and install Citrix Receiver

- Explain key Citrix printing concepts and terms, and configure printing for XenApp
- Secure application access using Access Gateway
- Describe the monitoring tools and technologies for XenApp, and track license usage
- Identify the purpose and key components of SmartAuditor, Single sign-on, Branch optimization, Provisioning services, Power and Capacity Management, and XenServer

## Instructional Method

This course is offered as a classroom and self-paced online training course, and includes classroom discussion, as well as demonstrations and the practical application of concepts through hands-on exercises.

## Course Length

5 days/ 30 hours

## 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 topic outline for CXA-206-1.

### Module 1: Introducing XenApp

- XenApp Editions
- XenApp Features
- XenApp Architecture
  - XenApp Components
  - Single and Multiple Farm Environments
  - XenApp Servers: Session host-only and Controllers
  - Data Store
  - Data Store Updates and the Local Host Cache
  - Independent Management Architecture
  - Data Collectors
  - Data Collector Election
  - Zones
  - Additional XenApp Components
- AppCenter
- Test Your Knowledge

### Module 2: Licensing XenApp

- Overview
- To License XenApp
  - Licensing Communication
  - License Communication Process
  - License Types
  - Citrix License Server
  - Microsoft Remote Desktop Services
  - Remote Desktop Licensing
  - Additional Licensing Considerations
- License Administration Console
  - Port Configuration
  - Delegated Administrators in the License Administration Console
- Installing Licensing
  - Manual Installation and Configuration
  - Removing Licensing
  - License Server Considerations

- License File Management
  - Obtaining License Files
  - To Add License Files
  - Subscription Advantage
- High Availability Considerations
  - Additional License Server Processes
  - License Server Clustering
- Test Your Knowledge

### **Module 3: Installing XenApp**

- Overview
- XenApp Server Role Manager
- Hardware Requirements
- Software Requirements
- Installation Decisions
- Server Configuration Tool
- Dynamic Data Center Provisioning
- Role-based Uninstall
- XenApp Configuration Options
  - Which Farm or Zones Will Be Used in the Environment?
  - Which Server Will Be Used as the License Server?
  - Which Database Engine Will Be Used for the Data Store Database?
  - Will Shadowing Be Enabled?
  - On Which Port Will the Citrix XML Service Run?
  - When Will Users Be Added to the Local Remote Desktop Users Group?
  - Will Pass-through Authentication Be Used in the Environment?
  - Will Information in the Data Store and Configuration Logging Databases be Protected with IMA Encryption?
- Web Interface Installation Decisions
- Test Your Knowledge

### **Module 4: Configuring XenApp Administration**

- Overview
- Worker Groups
  - Managing Worker Groups
- Administrator Privilege Levels
  - Creating Administrator Accounts
  - Configuring Administrator Permissions
  - Configuring Folder Permissions
  - Delegating Administration
- Configuration Logging
  - Creating the Configuration Logging Database
  - Configuration Logging Database Settings
  - Enabling Configuration Logging
- Test Your Knowledge

### **Module 5: Installing and Configuring Web Interface**

- Overview
- Web Interface Ports
  - Web Interface Communication Process
- Web Interface Installation
  - Installing the Web Interface
- Site Creation
  - Creating a Web Interface Site
  - Site Creation Considerations
  - XenApp Web Site Configuration Options
  - XenApp Services Site Configuration
- Web Interface Site Modification
  - Modifying the Web Interface Configuration File

- Using the Web Interface Management Console
- Specifying Citrix Plug-in Backup URLs
- Site Appearance
  - Site Customization Options
  - Session Preferences
  - Session Options
  - User Options
- Workspace Control
  - Workspace Control Functionality
  - Workspace Control Configuration Options
  - Workspace Control User Customization
  - Configuring Workspace Control
  - Session Termination
- Citrix Plug-ins and Web Interface
  - Plug-in Deployment Options
  - Automatically Detecting Plug-ins
  - Client Detection
- Authentication Configuration
  - Authentication Options
  - Generic RADIUS Support
  - Explicit Authentication
  - Pass-through Authentication
  - Smart Card Authentication
  - Citrix XML Service Trust Relationships
- Secure Access Configuration
  - Access Methods
  - Network Address Translation
  - Network Address Translation Access Types
- Server Configuration
  - Configuring Multiple Farms
  - Adding Farms
  - Configuring Load Balancing
  - Enabling Fault Tolerance
  - Specifying the XML Communication Port
  - Ticket Expiration Settings
- Web Interface Site Removal
- Troubleshooting Web Interface Issues
- Test Your Knowledge

## **Module 6: Delivering Applications and Content**

- Overview
- Published Resources
  - Published Resource Types
  - Resource Publishing Phases
  - Resource Name and Location
  - Server Assignment
  - Configured or Anonymous Accounts
  - Users and Groups
  - Resource Publishing Settings
- VM Hosted Apps
  - Components of VM Hosted Apps
- Organizing Published Resources for Users
- Advanced Published Resource Settings
  - Access Control
  - Content Redirection
  - Implementing Resource Limits and Client Options
  - Configuring Resource Appearance
- Published Resource Configuration
  - Session Pre-Launch

- Managing Connections to Resources
  - Disabling or Hiding a Published Resource
- Troubleshooting Application Delivery Issues
- Test Your Knowledge

## **Module 7: Streaming Applications**

- Overview
- Application Streaming
  - Application Streaming Benefits
  - Application Streaming Components
  - Application Streaming Communication Process
  - Streaming App-V Packages
- Citrix Offline Plug-in
  - Citrix Offline Plug-in Cache
  - Citrix Offline Plug-in Installation
- Citrix Streaming Profiler
  - Profiling Process
  - Installing the Citrix Streaming Profiler
  - Creating a Profile
  - Profile Security Setting
  - Targets
  - Inter-Isolation Communication
  - Profile Preference Settings
  - Profile System Requirements
  - Profile Installation Types
  - Profile Properties
  - Known Limits for Profiling Applications
  - Target Properties
  - Upgrading an Application in a Target
- Application Delivery Methods
- The Use Web Delivery Method
- To Stream to Servers
- Publishing a Streamed Application
  - Specifying an Alternate Profile for a Published Application
  - Enabling the Least-Privileged User Account
- Configuring Sites for Streaming Applications
  - Support for Both Remote and Streaming Applications
- Offline Access Management
  - Indirect Membership to the Offline Access List
  - Providing Offline Access
  - Offline Access Period
  - Renewing Offline Access Period
  - Application Caching
  - Pre-Deployment of Streaming Applications
- Troubleshooting Streaming Issues
- Test Your Knowledge

## **Module 8: Configuring Policies**

- Overview
- Group Policy Integration
  - IMA-based Group Policies
  - Group Policy Extensions
  - Group Policy Architecture
- Policy Evaluation
  - Policy Application Process
  - Policy Processing and Precedence

- Policy Changes Example
  - Policy Precedence Exceptions
- Policy Rules
- Support for Policy Templates
- Policy Filtering
- Policy Modeling
- Test Your Knowledge

## **Module 9: Configuring Load Management**

- Overview
- Load Manager
- Load Balancing
  - Load Balancing Process
- Load Calculation
  - Load Calculations
- Load Evaluator Configuration
  - Creating Custom Load Evaluators
  - Thresholds for Load Management
  - Assigning Load Evaluators to Servers and Applications
- Load Balancing Policies
  - Creating Load Balancing Policies
  - Force Application Streaming
- Preferential Load Balancing
  - Preferential Load Balancing Example
  - Preferential Load Balancing Considerations
- Troubleshooting Load Management Issues
- Test Your Knowledge

## **Module 10: Optimizing the User Experience**

- Overview
- Optimizing Session Performance
  - Enabling Display Settings
- HDX Broadcast Session Reliability
  - Enabling HDX Broadcast Session Reliability
- HDX Broadcast Session Reliability Considerations
- HDX RealTime
  - Enabling HDX RealTime
  - Understanding HDX RealTime Design Considerations
- HDX Plug-n-Play
  - Enabling HDX Plug-n-Play
  - Understanding HDX Plug-n-Play Design Considerations
- HDX MediaStream Windows Media Redirection
- HDX MediaStream Flash Redirection
- HDX 3D Image Acceleration
  - Enabling HDX 3D Image Acceleration
- HDX 3D Progressive Display
  - Enabling HDX 3D Progressive Display
- User Profiles
  - Differentiating User Profile Types
  - Redirecting User Data
  - Managing User Profiles
  - Enabling Profile Management
  - Understanding the Profile Management Logon Process
- Troubleshooting User Experience Issues
- Test Your Knowledge

## **Module 11: Configuring Self-Service Applications**

- Overview

- Self-Service Applications Technologies
- Citrix Receiver
  - Citrix Receiver for Windows
  - Citrix Receiver for Macintosh
- Citrix Merchandising Server
  - Citrix Merchandising Server Architecture
- Plug-ins
  - Supported Plug-ins, Clients and Receivers
  - Plug-in Delivery
  - Client for Java
  - Installation Considerations
- Troubleshooting Self-Service Application Issues
- Test Your Knowledge

## **Module 12: Configuring Printing**

- Overview
- Printing Concepts
  - Printing Definitions
  - Printer Types
  - Printing Security
- Default Printing Behavior
  - Altering the Default Printing Behavior
- Printer Provisioning
  - User Self-Provisioning
  - Printer Auto-Creation
- Printing Pathways
  - Network Printing Pathway
  - Client Printing Pathway
  - Printing Pathway Demonstration
- Printer Drivers
  - Printer Driver Types
- Citrix Universal Printing
  - Enhanced MetaFile Format
  - Print Preview
  - Citrix Universal Printer
  - Configuring Citrix Universal Printing
- Administrator-Assigned Network Printers
  - Adding a Network Printer
  - Editing Network Printer Settings
  - Specifying the Default Printer
- Workspace Control and Proximity Printing
  - Configuring Proximity Printing
- Printing Preferences
  - Printing Properties
  - Printing Preference Hierarchy
  - Configuring Printer Property Retention
- Printing Bandwidth
- Troubleshooting Printing Issues
- Test Your Knowledge

## **Module 13: Securing XenApp**

- Overview
- XenApp Security Solutions
- SecureICA
- Citrix SSL Relay
  - SSL Relay Communication
  - Configuring SSL Relay
- Access Gateway
  - Access Gateway Deployment Scenarios

- Access Gateway Communications
  - Digital Certificates
  - Securing Access to Hosted Applications
  - SmartAccess
- Web Interface Configuration
  - Access Methods
  - Access Gateway Settings
  - Configuring Web Interface for Access Gateway Connections
- Security Configuration Best Practices
- Troubleshooting Access Gateway with XenApp
- Test Your Knowledge

## **Module 14: Monitoring XenApp**

- Overview
- Health Monitoring and Recovery
- Service Monitoring for XenApp
  - Service Monitoring Components
  - Service Monitoring Communication
- License Usage Monitoring
  - Configuring License Alerts
  - Viewing License Usage
  - Viewing Historical License Data
- Workflow Studio Overview
  - Workflow Studio Architecture
  - Workflow Automation Use Cases
- Accessing the Farm using PowerShell
- Administering the Farm using Commands
- Test Your Knowledge

## **Module 15: Additional Components**

- Overview
- SmartAuditor
  - SmartAuditor Components
  - Session Recording Process
- Single Sign-on
  - Single Sign-on Components
  - Single Sign-on Process
- Branch Optimization
  - Branch Repeater Components
  - Branch Optimization Process for the Plug-in
- Provisioning Services
  - Provisioning Services Components
- Power and Capacity Management
- XenServer
  - XenServer Components
- Test Your Knowledge

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