

CITRIX COURSE CONTENT

What is Citrix

Citrix Systems, Inc. is an American multinational software company that provides server, application and desktop virtualization, networking, software as a service (SaaS), and cloud computing technologies. Citrix solutions are claimed to be in use by over 400,000 clients worldwide, including 99% of the Fortune 100, and 98% of the Fortune 500.

Xenapp:

XenApp is application virtualization software produced by Citrix Systems that allows Windows applications to be accessed via individual devices from a shared server or cloud system. XenApp was first released in 2008, but earlier versions of the product were called WinFrame, MetaFrame, and Presentation Server.

Xendesktop:

XenDesktop is a desktop virtualization software platform that allows multiple users to access and run Microsoft Windows desktops that are installed at a centralized location separate from the devices from which they are being accessed.

Citrix Virtual Apps and Desktops:

Formerly called as Xenapp and XenDesktop

Prerequisites:

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

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- 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

Course Content

Xenapp 6&6.5

- Introducing XenApp
- Licensing XenApp
- Installing XenApp
- Administrative Configuration
- Installing and Configuring Web Interface and StoreFront
- Delivering Applications and Content
- Citrix Receiver
- Application Streaming and App-V Integration
- Configuring Policies
- Configuring Load Management
- Optimizing the User Experience
- Configuring Printing
- XenApp Security
- Monitoring XenApp
- Additional Components
- Migration to 6.5
- New features in 6.5
- Troubleshooting XenApp 6&6.5

Citrix Provisioning Services

Module 1: Advanced Provisioning with Provisioning Services

- Getting started with Provisioning Services
- Provisioning Services Architecture

Module 2: Provisioning Services Infrastructure

- The PVS server role
- The Farm database
- The vDisk Store

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Module 3: Streaming the vDisk

- Introduction to vDisks
- Machine preparation
- Streaming vDisks
- Boot methods

Module 4: Target Devices

- Introduction to target devices
- Data I/O
- Handling persistent and non-persistent data

Module 5: Integrating Provisioning Services with XenApp and XenDesktop

- XenDesktop Setup Wizard
- Device Collections
- Published Apps and Desktops
- Using Provisioning Services with XenApp and XenDesktop

Module 6: Provisioning Services Redundancy

- Farm component redundancy
- Store redundancy
- Database redundancy

Module 7: Supporting Provisioning Services

- Performing updates
- Auditing and support
- vDisk imaging
- Migrating vDisk images

Troubleshooting

Xenapp and Xendesktop 7.15 or Virtual app and Desktop 7.15:

- Upon completion of this course, you will accomplish the following:-
- Classify the various components and communication protocols of the FMA architecture
- Employ architectural understanding to desktop virtualization solutions
- Perform an organizational assessment focusing on business requirements, capabilities, users, and applications

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- Plan desktop virtualization solutions
- Validate and offer design recommendations
- Troubleshoot designs of desktop virtualization

Module 1: Intermediate Site Architecture

- FMA Services
- SQL database connectivity and security
- Multi-zone VDA registration
- Zone preference

Module 2: Workspace Environment

- Introduction to WEM
- Administration
- Optimizing resource consumption on VDA hosts
- Managing the end-user experience with WEM
- Moving to WEM

Module 3: StoreFront Optimization and Routing

- User experience optimizations
- StoreFront branding
- Optimal Gateway routing and Zones
- Subscription Store

Module 4: HDX and Multimedia

- HDX in the network
- Enlightened Data Protocol (EDT)
- Multimedia delivery and redirection
- Delivering Skype for Business with XenApp and XenDesktop

Module 5: App Layering (Full day module)

- App Layering Introduction
- Layering Architecture
- Creating Layers
- App Layering Maintenance

Module 6: Supporting and Troubleshooting

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- Connections
- Communications
- Session Launches

Module 7: Integrating Provisioning Services with XenApp and XenDesktop

- XenDesktop Setup Wizard
- Device Collections
- Published Apps and Desktops
- Using Provisioning Services with XenApp and XenDesktop

Module 8: User Segmentation

- Identify the different FlexCast models
- Identify considerations in selecting the most appropriate method for segmenting users

Module 9: User Design

- Make key decisions regarding user groups and device (endpoint) design
- Organize user groups for Design document
- Identify and prioritize top user issues
- Design user profile strategy
- Design a printing strategy

Module 9: Receiver

- Define how applications will be delivered
- Design Citrix Receiver deployment and maintenance

Module 10: Resource Req. Recommendations

- Identify recourse requirements
- Make key design decisions regarding resource recommendations

Module 11: Access

- Design an authentication point (Storefront and NetScaler Gateway) strategy
- Determine session and access policies, including user authentication and remote access
- Design virtual desktop operating systems access
- Calculate bandwidth for the desktop virtualization solution

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Module 12: Desktop

- Make key design decisions regarding machine catalogues and groups
- Design a personalization strategy including user profiles, user policies and personalvDisk usage.
- Design an appropriate printing strategy

Module 13: Application Delivery

- Design a solution that meets application inventory and integration requirements
- Identify characteristics of the applications that will impact placement as well as the application delivery architecture for the XenDesktop environment
- Design an application delivery strategy

Module 14: Desktop Delivery

- Design a Desktop delivery topology, including Sites, XenDesktop Controllers per site, and load balancing.
- Design the underlying infrastructure, including database selection, license servers and active Directory Integration
- Identify the XenDesktop user and virtual desktop baseline policies

Module 15: Networking Layer

- Make key high availability design decisions
- Integrate the XenDesktop infrastructure with the network infrastructure
- Understand WAN optimization, Multistream ICA, and DHCP functionality

Module 16: Verification

- Verify assess and design decisions using Citrix online tools
- Develop a complete stakeholder presentation
- Effectively present and support design decisions

Netscaler

- Explain NetScaler capabilities and functionality.
- Introduce NetScaler architecture.
- Discuss NetScaler hardware and components.
- Explore deployment and licensing options.
- Perform NetScaler setup and configuration.

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Basic Networking:

- Understand the purpose of NetScaler-Owned IP Addresses.
- Recognize the networking topologies used with NetScaler.
- Explain the use of interfaces and VLANs during configuration.
- Discuss the available NetScaler routing and traffic-handling modes.
- Define Access Control Lists and how to configure them.
- Describe the Network Address Translation feature of NetScaler.

NetScaler Platforms:

- Distinguish the hardware and use cases for the NetScaler MPX, VPX, and SDX.
- Discuss the multi-tenant structure of the NetScaler SDX.
- Illustrate the function and benefits of various SDX interface allocation scenarios.
- Identify the NetScaler SDX administrative components and their use.

High Availability:

- Explain NetScaler capabilities and functionality.
- Introduce NetScaler architecture.
- Discuss NetScaler hardware and components.
- Explore deployment and licensing options.
- Perform NetScaler setup and configuration.

Load Balancing:

- Describe the NetScaler load-balancing process and the role of entities.
- Identify the different load-balancing and monitoring options available on the NetScaler.
- Define the different traffic types that can be load balanced.
- Explain how monitoring and service options can be customized.
- Understand third-party load-balancing services on NetScaler.
- Distinguish the methods used to protect and troubleshoot a NetScaler load-balancing configuration.

SSL Offload:

- Define SSL and how SSL Offload works.
- Explain the process of creating and uploading SSL Certificates.
- Demonstrate the creation of SSL virtual servers.
- Identify common SSL deployments.

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- Describe some SSL Exploits and some of the NetScaler configuration settings that can prevent them.

Securing the NetScaler:

- Define authentication, authorization, and auditing.
- Describe how to configure authentication and authorization on NetScaler.
- Identify the components and steps required to secure a NetScaler configuration.
- Summarize the use and benefits of Admin Partitions.

Monitoring, Management, and Troubleshooting:

- Identify NetScaler Log issues.
- Monitor the NetScaler environment with Simple Network Management Protocol data.
- Leverage AppFlow, Command Center, and Insight features within the NetScaler environment.
- Utilize NetScaler troubleshooting tools.

Other Tools

- Citrix UPM
- Edgesight
- Nagios
- WindowsServer 2008r2/2012.2016
- SQL Server
- ITIL Process
- Citrix Presentation Server 4.5
- Access Gateway