CXD-400: Designing App and Desktop Solutions with Citrix XenApp and XenDesktop

This course provides students with the ability to successfully assess and design a XenApp and/or XenDesktop virtualization solution based on the top key projects and architectures that a majority of Citrix customers implement, across different industries and use cases. Students may also have an opportunity to build a design for their organization and will have access to all of the tools and reference materials required to support their work.

Who should enroll in this course?

This course is recommended for desktop virtualization solution designers such as Architects, Consultants, and Engineers.

Preparatory Recommendations

Before taking this course, Citrix recommends that students have:

- Intermediate knowledge of Citrix Desktop Virtualization Components/Concepts
- Basic understanding of project management and documentation best practices
- Basic presentation skills
- Windows Server Knowledge (Windows Server 2012 R2) including
  - Active Directory
  - DHCP
- Basic Networking Knowledge
- SQL Server - General understanding of databases, permissions, security, high availability
- General understanding of physical and virtual storage
  - NAS, SAN, SSD
  - CIFS
- Familiarity with hypervisor technologies (XenServer, Hyper-V, or vSphere)
- Completed XenApp and/or XenDesktop Introduction and Deploying courses or can demonstrate equivalent knowledge.

Key Skills

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

- Identify the various components and communication protocols of the XenApp/XenDesktop architecture
- Apply architectural understanding to desktop virtualization solutions
- Conduct an organizational assessment focusing on business capabilities and requirements, applications, and users
- Design desktop virtualization solutions
- Verify and present design recommendations
- Troubleshoot desktop virtualization designs

Instructional Method

This course is offered as an instructor-led course with demonstrations and the practical application of concepts through activity-based and application-focused exercises

Course Length

36 hours or 5 days

Certification Preparation

In addition to field experience, this course prepares candidates for the Citrix Certified Expert – Virtualization exam based on architecting, assessing, and designing. Go here to learn more about Citrix Certifications.

Module Topics

Provided is the module outline for the Designing App and Desktop Solutions with Citrix XenApp and XenDesktop course:

- Module 1: Architecture
  - Identify the various components included in the XenApp/XenDesktop architecture
  - Determine how the various components communicate and which protocols they are using
  - Apply architectural understanding to desktop virtualization solutions
  - Troubleshoot desktop virtualization design
- Module 2: Business Drivers
  - Identify specific business drivers for multiple verticals
  - Facilitate a discussion with the project team at an organization to prioritize business drivers
- Module 3: Data Capture
  - Identify best strategy for data collection given a specific organizational environment.
  - Identify the types of application data to collect, the method for collecting them, and application data collection tools
- Module 4: User Segmentation
  - Identify the different FlexCast models
  - Identify considerations in selecting the most appropriate method for segmenting users
- Module 5: Application Assessment
  - Understand the process of application assessment
  - Demonstrate rationalization of applications in a given case organization
  - Assess a suite of applications based on business needs and compatibility to a given XenApp/XenDesktop delivery model.
- Module 6: Project Management
  - Understand the importance of project management for a successful implementation
  - Identify roles for a project plan
- Module 7: 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 8: Receiver
  - Define how applications will be delivered
  - Design Citrix Receiver deployment and maintenance
- Module 9: Resource Req. Recommendations
  - Identify recourse requirements
  - Make key design decisions regarding resource recommendations
- Module 10: Access
  - Design an authentication point 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
- Module 11: Desktop

    - Make key design decisions regarding machine catalogs and groups
    - Design a personalization strategy including user profiles, user policies and personal vDisk usage.
    - Design an appropriate printing strategy
- Module 12: 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 XenApp/XenDesktop environment
    - Design an application delivery strategy
- Module 13: 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 14: Networking Layer
    - Make key high availability design decisions
    - Integrate the XenApp/XenDesktop infrastructure with the network infrastructure
    - Understand WAN optimization, Multistream ICA, and DHCP functionality
- Module 15: Storage and Provisioning Layer
    - Make key design decisions regarding storage solutions
    - Identify the features and differences between PVS and MCS
    - Design a provisioning strategy with either PVS or MCS
- Module 16: Platform Layer
    - Make key design decisions regarding the hypervisor to be used in desktop virtualization solutions
    - Make accurate hardware calculations, including VDI hardware, shared hardware, application hardware, and control hardware
- Module 17: Operational
    - Understand potential migration approaches
    - Design a system monitoring strategy
    - Make key design decisions regarding application delivery
        - Migration approach
        - Backup and System Monitoring
        - Backup
        - System Monitoring
- Module 18: Verification
    - Verify assess and design decisions using Citrix online tools
    - Develop a complete stakeholder presentation
    - Effectively present and support design decisions
- Capstone Exercise