

## CXS-301 Citrix XenServer 7.1 LTSR Administration

### Overview

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Build a new skill set around Citrix XenServer 7.x focusing on the 7.1 Long Term Services Release, which delivers optimized server virtualization for all datacenter workloads. In this course, students will learn how to install, manage, secure, size and troubleshoot an enterprise XenServer implementation. The course will walk students through configuration and administration of the environment, from architecture and virtual machines to resource pools, storage and networking. Key topics will include capabilities such as virtual CPU optimization, VM management, and high availability/disaster recovery, and features such as Intellicache and XenMotion.

### Target Audience

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This course is designed for IT professionals with little or no XenServer experience.

### Course Objectives

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- Understand XenServer architecture, features, and leading practices
- Configure and manage virtual machines
- Install, configure, and manage XenServer and the XenServer environment
- Configure Resource Pools and high availability in the XenServer environment
- Configure network, storage, and security for XenServer
- Troubleshoot the XenServer environment

### Course Outline

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#### 1 - XenServer Architecture

- Describing the XenServer virtualization platform
- Product editions and entitlements
- XenServer architecture
- XenServer key components

#### 2 - Managing Virtual Machines

- Virtualization techniques
- XenTools
- Creating virtual machines
- Managing virtual machines
- Understanding vApps
- Managing snapshot

### 3 - Installing XenServer

- Hardware requirements
- Licensing
- Available installation methods
- XenServer supplemental packs

### 4 - Managing a XenServer Environment

- Deploying hotfixes
- Upgrading XenServer
- Upgrading XenTools
- Monitoring and alerting
- Pool metadata backups

### 5 - Resource Pools

- Understanding resource pools
- XenServer pool master
- Pool master election
- Workload balancing

### 6 - Networking

- XenServer networking architecture
- Virtual network types
- Network interface bonds
- XenServer physical connectivity

### 7 - Storage

- XenServer storage architecture
- Understanding thick and thin provisioning
- Storage locations
- File based and block based storage
- Storage multipathing
- XenServer Intellicache
- XenServer in-memory read caching
- XenApp and XenDesktop Provisioning enhancements

### 8 - High Availability

- Purpose of high availability
- High availability recommendations
- Detecting a host failure
- High availability recovery process

## 9 - Security

- Integrating with Active Directory
- Understanding role-based access
- Minimizing the attack surface
- Certificates and SSL with XenServer
- XenServer Hypervisor Introspection Direct Inspect API

## 10 - Sizing and Optimizations

- Dom0 sizing
- Dom0 in-memory reach caching
- Virtual CPU optimization
- Device pass-through
- Dynamic memory control
- Resource scheduling
- Network QoS
- Disk prioritization
- XenServer vGPU and GPU pass-through

## 11 - Troubleshooting

- XenServer maintenance mode
- Host logs and event notifications
- Xsconsole
- XenTop
- Command line and PowerShell commands
- Using Citrix Insight Services
- Network tracing

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