

70-646 R3: Windows Server 2008 Administration

- **Course Length:** 4 Day

Course Overview

This course will prepare the student for Exam 70-646: Pro: Windows Server 2008, Server Administrator. Topics covered include planning for server deployment and management, application and data provisioning, business continuity and high availability, and monitoring and maintaining servers.

Course Outline

<u>Course Introduction</u>	5m
Course Introduction	
<u>Chapter 01 - Preparing for Windows 2008 Installation</u>	30m
Lesson: Overview of Windows Server 2008 Deployment	
Business Needs	
Consolidation Benefits with Server 2008	
High Availability	
64-bit Systems Options	
Virtualization Options	
Any Issues With Compatibility	
Lesson: Making a Deployment Plan for Windows 2008 Server	
Document and study the Current Network Environment	
Designing Server Deployments	
Maintenance and Deployment Schedules	
Lesson: Planning Migration	
Creating a Migration Plan	
Using the Upgrade Plan	
What Can Delay Your Windows 2008 Server Installation?	
Chapter 01 Review	
<u>Chapter 02 - Configuration Change Plan</u>	37m
Lesson: Developing a Change Control Process	
How Does the Change Control Process Work?	
Create a Communication Plan	
Classifying Change Requests	
Approving the Change	
The Emergency Change	
Lesson: Developing Configuration Changes	
Overview of Developing Configuration Changes	
Analyzing the Change	
The Testing Process	
Have a Backup Plan - Rollback	
Lesson: Reviewing Configuration Changes	
Testing the Success of a Change	
Analyzing the Success of a Change	

Documentation Update
Chapter 02 Review

Chapter 03 - Preparing for Server 2008 Migration

1h 3m

Lesson: Server Migration

Making a Windows 2008 Server Deployment Plan
How Virtualization Helps
Planning for a Rollback
Migrating Data And Services

Lesson: How to Plan for the Server Decommissioning Process

Decommissioning
Considerations for Decommissioning a Server
Licensing

Lesson: Planning an Example of Commissioning a Windows Server 2008 File Server

Server Deployment Tools
Planning According to Policy
Migrating File Servers
Demo - Installation Part A
Demo - Installation Part B
Chapter 03 Review

Chapter 04A - Server Migration and Planning for Roles

1 h 9m

Lesson: Planning for Windows Server 2008 Hardware

How Windows Server 2008 Uses Process and Memory Resources
How to Choose either 32-Bit or 64-Bit Hardware
Guidelines for Combining Server Roles
Hardware Redundancy

Lesson: Planning for Windows Server 2008 Core

Why the Server Core?
Hardware Requirements for Windows Server 2008 Server Core
Demo - Role Consolidation
Demo - File Resource Manager

Lesson: Combining Windows Server 2008 Server Roles

What are Server Roles
Performance Implications of Combining Server Roles
Recommendations for Combining Servers
Options for Maintaining High Availability

Lesson: Planning for Windows Server 2008 File Servers

File Storage in Windows Server 2008
Recommendations for File Storage
High-Availability File Servers
Clustering Options for File Servers

Chapter 04B - Server Migration and Planning for Roles

25m

Lesson: Understanding Application Server Role Requirements

What Scenarios Require the Application Server Role
Preparing for Installation of the Application Server Role
Supporting Technologies for Applications
Compatibility

Lesson: Overview of the Application Server Role Components

Windows Workflow Foundation
Windows Presentation Foundation
Windows Communication Foundation
Lesson: Supporting the .NET Framework
How the .NET Framework is Used
.NET Versions
Chapter 04 Review

Chapter 05 - Distributed File System

42m

Lesson: What's Required for DFS
Needed Services for DFS
DFS Architecture
Lesson: Planning for High Availability in DFS
DFS Namespaces
DFS Replication
Data Storage
Comparing Domain and Stand-Alone DFS
Lesson: Managing DFS
DFS Management Tools
Delegating DFS Administration
Demo - DFS
Chapter 05 Review

Chapter 06 - Windows Server 2008 High Availability

31m

Lesson: Network Load Balancing
Features of Network Load Balancing
Changes in Network Load Balancing for Windows Server 2008
Troubleshooting Network Load Balancing
Lesson: Understanding Failover Clustering in Windows Server 2008
Features of Clustering in Windows Server 2008
Failover Clustering Enhancements in Windows Server 2008
Validating a Failover Clustering Solution in Windows Server 2008
Tools to Manage Failover Clustering in Windows Server 2008
Lesson: Creating Clusters in Windows Server 2008
Hardware Requirements for Failover Clustering
Planning Failover Clusters in Windows Server 2008
Managing Failover Clustering in Windows Server 2008
Chapter 06 Review

Chapter 07 - Monitoring Windows Server

1h 9m

Lesson: Setting Up Monitoring
Why Should You Monitor
Monitoring Options
Planning for Event Monitoring
Lesson: Measuring Performance Objects
Server Role Metrics
Key Performance Counters
Lesson: Calculating a Server Baseline
Key Hardware Components to Monitor
Common Performance Metrics

Analyzing Performance Trends
Planning for Future Capacity Requirements

Lesson: Which Monitoring Tools to Use

Windows Server 2008 Monitoring Tools
Reliability and Performance Monitor
Windows Performance Monitor
Third-Party Monitoring Tools

Lesson: Planning Notification Methods

What is Good for the Business
How Can I Be Notified?
When to Escalate
Demo - WRPM
Chapter 07 Review

Chapter 08 - Windows Server Security

1h 26m

Lesson: Designing a Multi-Layer Defense

Multi-Layer Defense Strategy
What Defense Layers Should Be Considered?

Lesson: Network-Based Security for Windows Server 2008

Network Security Terms
Options for Network Security
Recommendations for Implementing Windows Server 2008 Server Core
Demo - Security
Demo - Server Core Introduction

Lesson: Host-Based Security for Windows Server 2008

Assigning Administrative Permissions
Windows Server 2008 Firewall Configuration
Security Templates
Converting Security Configuration Wizard Settings to Security Templates
Chapter 08 Review

Chapter 09 - Windows Server Backup and Restore

1h 30m

Lesson: Backup Strategies with Windows Server 2008

Selecting Backup Software and Backup Operators
Planning Backup in Windows Server 2008
Backup Scheduling
Making the Data Retention Plan
Backing Up Encrypted Files and Virtual Machines
Factors Affecting Backup Policy
Storage and Security Considerations
Process for Selecting Backup Operators
Demo - Backup

Lesson: Planning a Server Restore Policy

Server Restore
Challenges of a Server Restore
Backup Plan Options
Change Management Considerations

Lesson: Verifying Restored Data

Restore Logs
Accessing Data After Restore

Security Analysis
Updating Backup Policy

Lesson: Planning an EFS Restore Policy

Planning for Restoring EFS Data
Requirements for EFS Recovery
Chapter 09 Review

Chapter 10 - Windows Server Maintenance Plan

51m

Lesson: Planning for Security Update Management

WSUS Deployment Considerations
WSUS Group Policy Settings
Obtaining Updates
Server Core Security Updates
Demo - Management Tasks

Lesson: Basic Windows Server 2008 Management Tasks

Windows Server 2008 Management Tasks
Tasks Most Servers Share
Frequency of Management Tasks

Lesson: Automating Windows Server 2008 Maintenance

Automation Requirements
Task Automation Tools
Tool Selection Process
Chapter 10 Review

Chapter 11 - Planning for Business Continuity

42m

Lesson: Planning for Business Continuity

Software Failure and the BIA
How Much of an Impact from Software Failure
Tracking Service Level Agreements
Creating Change Management Procedures
Typical Stages in a Troubleshooting Methodology

Lesson: Reviewing Core Operating System Components

Identifying Core Operating System Components
Identifying Additional Roles and Services
Server Applications

Lesson: Reviewing Log Files

Monitoring Log Files by Using Event Viewer
Monitoring Application Logs

Lesson: Evaluating Security Issues

Troubleshooting Group Policy Security Settings
Defense-in-Depth Components
Identifying Faults
Chapter 11 Review

Chapter 12 - Windows Server Troubleshooting

1h 2m

Lesson: Discovering Hardware Support Issues

Tools Used for Troubleshooting
Evaluating Hardware Devices

Lesson: Handling Device Driver Failures

Determining Drivers in Use

When to Escalate

Replacing Drivers

Lesson: Handling Hardware Component Failures

Documenting Vulnerable Hardware Components

Replacing Devices

Lesson: Determining the Scale of Network Issues

Business Impact of Network Failure

Scale of Failure

Service Level Agreements

Change Management Procedures

Interaction with Other Teams

Lesson: Name Resolution in Windows Server 2008

Domain Name System

Link-Local Multicast Name Resolution

Legacy Protocols

Lesson: Fixing IP Connectivity Issues

Which Versions of IP Are Being Used?

Resolving Logical Addressing Problems

Chapter 12 Review

Course Closure

Total Duration: 11hrs 43m