

# Windows Server 2008 Bridge Track

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## Description

The Windows Server 2008 Bridge Program offers our students the ability to transition and build their skills on Microsoft Windows Server 2008. Key topics will include the preparation to plan and to work with IP addressing and services, names resolution, file and print services, network access and remote access, and monitoring network services.

This comprehensive program includes 54 hours of instructor-led training by a Microsoft Certified Trainer using Microsoft official curriculum. In addition, the program includes hands on labs, supplemental eLearning content, certification preparation tools and unlimited exams, plus optional career services and financial plans.

## Duration

54 Clock hours (12 nights)

## Dates

Call for start dates

## Target Audience

This track is intended for system administrators and system engineers already using Windows Server 2003 and are planning or moving to Windows Server 2008.

## Course Objectives

After completing this course, students will be able to:

- Install and configure Windows Server 2008.
- Add and configure Windows Server Core roles.
- Explain the new backup infrastructure, including Volume Shadow Copy Service.
- Identify new and improved networking features with Windows Server 2008.
- Configure Hyper-V virtual machines.
- Identify considerations when upgrading from a Windows Server 2003 to a Windows Server 2008 Active Directory infrastructure.
- Install and configure Active Directory Federation Services, Active Directory Lightweight Directory Services, and Active Directory Rights Management Services.
- Use Read-Only Domain Controllers.
- Identify new features in AD DS auditing.
- Implement AD DS auditing.
- Configure Windows Server 2008 Failover Clustering.
- Configure Windows Server 2008 Network Load Balancing.
- Write Power Shell Scripts.



## **Prerequisites**

- Experience planning, implementing, managing, maintaining, and securing Microsoft Windows Server 2000 or 2003, including Active Directory and Network Infrastructure server roles.
- Working knowledge of networking, for example, TCP/IP and Domain Name System (DNS).
- MCSA on Windows Server 2003 or MCSE on Windows Server 2003 recommended, but not required.

## **Certification**

- MCTS: Windows Server 2008 Network Infrastructure Configuration

## **Exam**

- 70-642: TS: Windows Server 2008 Network Infrastructure, Configuring

## **Abbreviated Outline**

- Installing and Configuring Windows Server 2008.
- Working with Windows Backup.
- Implementing and Configuring name resolution.
- Configuring Network Policies and Access Protection.
- Planning and Implementing Active Directory and Federation Services.
- Implementing PKI.
- Implementing Hyper-V and high-availability.
- Creating scripts with Power Shell.



## Outline

### Module 1. Installing and Configuring Windows Server 2008

#### Lessons

- Server Manager Roles
- Windows Server 2008 Features
- Active Directory Improvements

#### Labs

- Initial Configuration Tasks
- Server Manager Console
- Server Manager Wizards
- Windows PowerShell

### Module 2. Windows Deployment Services

#### Lessons

- Introducing Windows Deployment Services
- WDS Components

### Module 3. Windows Server 2008 Server Core

#### Lessons

- Server Core Introduction
- Configuring and Managing Server Core

#### Labs

- Installing Windows Server Core
- Configure Server Core
- Add and Configure Server Roles

### Module 4. Windows Backup

#### Lessons

- Backup Infrastructure
- Optical Media
- Restore Utilities

#### Labs

- Perform Installation Tasks
- Schedule a Backup
- Create a Manual Backup
- Schedule Daily AD DS Backup via Command Line
- Backup and Recovery with Vista Client
- Restore Files and Folders
- Perform Windows RE Tasks

### Module 5. Configuring and Troubleshooting DNS

#### Lessons

- Installing the DNS Server Role
- Configuring the DNS Server Role
- Configuring DNS Zones
- Configuring DNS Zone Transfers
- Managing and Troubleshooting DNS

**Labs**

- Configuring a DNS Infrastructure
- Monitoring and Troubleshooting DNS

**Module 6. Configuring and Managing WINS****Lessons**

- Overview of the Windows Internet Name Service
- Managing the WINS Server
- Configuring WINS Replication
- Migrating from WINS to DNS

**Labs**

- Installing WINS
- Configuring WINS Burst Handling
- Configuring WINS Replication
- Migrating from WINS to DNS

**Module 7. Configuring and Troubleshooting DHCP****Lessons**

- Overview of the DHCP Server Role
- Configuring DHCP Scopes and Options
- Managing a DHCP Database
- Monitoring and Troubleshooting DHCP
- Securing DHCP

**Labs**

- Installing and Authorizing the DHCP Server Role
- Configuring a DHCP Scope
- Troubleshooting Common DHCP Issues

**Module 8. Configuring and Troubleshooting IPv6 TCP/IP****Lessons**

- Overview of IPv6
- Coexistence with IPv6
- IPv6 Tunneling Technologies
- Transitioning from IPv4 to IPv6
- Troubleshooting IPv6

**Labs**

- Configuring a New IPv6 Network and Client
- Configuring an ISATAP Router to Enable Communication Between an IPv4 Network and an IPv6 Network

**Module 9. Network Policies and Access Protection****Lessons**

- Network Policies Access Protection
- Enforcement Options
- Network Access Protection Scenarios
- Routing and Remote Access

**Labs**

- Configuring Network Access Protection for DHCP
- Configuring Network Access Protection for VPN
- Configuring Network Access Protection for IPsec

**Module 10. Configuring IPsec****Lessons**

- Overview of IPsec
- Configuring Connection Security Rules
- Configuring IPsec NAP Enforcement

**Labs**

- Preparing the Network Environment for IPsec NAP Enforcement
- Configuring and Testing IPsec NAP Enforcement

**Module 11. Monitoring and Troubleshooting IPsec****Lessons**

- Monitoring IPsec Activity
- Troubleshooting IPsec

**Labs**

- Monitoring IPsec Connectivity
- Configuring Connection Security
- Troubleshooting IPsec

**Module 12. Configuring and Managing Distributed File System****Lessons**

- DFS Overview
- Configuring DFS Namespaces
- Configuring DFS Replication

**Labs**

- Installing the Distributed File System Role Service
- Creating a DFS Namespace
- Configuring Folder Targets and Folder Replication
- Viewing Diagnostic Reports for Replicated Folders

**Module 13. Planning for Windows Server 2008 Active Directory Services****Lessons**

- Planning for AD DS Deployment
- Upgrade Considerations

**Labs**

- Install a New Forest
- Install a Windows Server 2008 DC in an Existing Forest
- Verify Active Directory Installation

**Module 14. Active Directory Domain Services****Lessons**

- What's New in AD DS
- Manageability and Reliability

**Labs**

- Create Accounts
- Review Operations Masters Role
- Review Sites
- Working with Subnets
- Working with Site-Links
- AD DS and Group Policy
- Review DNS Configuration

**Module 15. Read-Only Domain Controllers****Lessons**

- Read-Only Domain Controllers
- Read-Only Domain Controller Operation

**Labs**

- Deploying an RODC
- Administering an RODC

**Module 16. Identity and Access Services in Windows Server 2008 Active Directory****Lessons**

- Active Directory Federation Services
- Active Directory Lightweight Directory Services
- Active Directory Rights Management Services

**Module 17. Auditing Active Directory Domain Services Changes****Lessons**

- What's New in AD DS Auditing
- Implementing AD DS Change Auditing

**Module 18. Enterprise PKI Active Directory Certificate Services (AD CS)****Lessons**

- Certificate Authority

**Labs**

- Add a Certificate Server Role
- Exploring New Enrollment UI
- Introducing CA performance monitors UI
- Exploring delegated enrollment UI
- Introducing OCSP configuration UI
- Explore Certificate Revocation

**Module 19. Performance Monitoring and Optimization****Lessons**

- Windows Reliability and Performance Monitor
- Microsoft Windows System Resource Manager
- Monitoring Events

**Labs**

- Reviewing Performance and Reliability Monitoring
- Key Scenarios for Monitoring Performance and Reliability
- Add Windows System Resource Manager Feature
- Windows System Resource Manager Scenarios
- Configure Windows System Resource Manager for Terminal Services

**Module 20. Configuring and Managing Storage Technologies****Lessons**

- Windows Server 2008 Storage Management Overview
- Managing Storage Using File Server Resource Manager
- Configuring Quota Management
- Implementing File Screening
- Managing Storage Reports

**Labs**

- Installing the FSRM Role Service
- Configuring Storage Quotas
- Configuring File Screening
- Generating Storage Reports

**Module 21. High Availability Features****Lessons**

- Failover Clustering
- Network Load Balancing

**Labs**

- Installing a Two-Node File Server Cluster
- Configure Network Load Balancing with IIS

**Module 22. Software Maintenance Using Windows Server Update Services****Lessons**

- Introduction to Windows Server Update Services
- Installing and Configuring Windows Server Update Services
- Managing Windows Server Update Services

**Labs**

- Install Prerequisites
- Install WSUS
- Restore a WSUS Installation
- Create a Computer Group and Manage Updates

**Module 23. Hyper-V****Lessons**

- Introducing Hyper-V
- Configuring Hyper-V

**Labs**

- Install and Configure Hyper-V
- Configure Virtual Networks
- Add Virtual Machines
- Monitoring and Optimization

**Module 24. Introduction to Microsoft Windows PowerShell****Lessons**

- Introduction to Windows PowerShell
- Installing Windows PowerShell in Windows Server 2008

**Labs**

- Installing Windows PowerShell
- Customizing Windows PowerShell

**Module 25. Overview of Microsoft Windows PowerShell****Lessons**

- Overview of Objects
- Working with Cmdlets

**Labs**

- Working with Windows PowerShell Cmdlets, Aliases, Objects, and Variables
- Learning Cmdlets and Defining Aliases