

Configuring Windows Server 2008 Active Directory

- **Course Number:** 70-680

Certification Exam

This course is preparation for the Microsoft Technical Specialist (TS) exam, Exam 70-680: TS: Windows 7, Configuring

Course Overview

When you pass Exam 70-680: TS: Windows 7, Configuring, you complete the requirements for the following certification(s):

- MCTS: Windows 7, Configuration

Exam 70-680: TS: Windows 7, Configuring: counts as credit toward the following certification(s):

- MCITP: Enterprise Administrator
- MCITP: Enterprise Desktop Administrator 7
- MCITP: Enterprise Desktop Support Technician 7

Prerequisites/Audience

Candidates for this exam operate in computing environments that use Microsoft Windows 7 as a desktop operating system in an enterprise environment. Candidates should have at least one year of experience in the IT field, as well as experience implementing and administering any Windows client operating system in a networked environment.

Candidates should be able to install, deploy, and upgrade to Windows 7, including ensuring hardware and software compatibility. Additionally, candidates should be able to configure pre-installation and post-installation system settings, Windows security features, network connectivity applications included with Windows 7, and mobile computing. Candidates should also be able to maintain systems, including monitoring for and resolving performance and reliability issues. Candidates should have a basic understanding of Windows PowerShell syntax.

Course Outline

Course Introduction

4 m

Module 01 - Windows 7 Installation

59m

Preparing to Install Windows 7

Key Features of Windows 7

Editions of Windows 7

Minimum Hardware Requirements for Installing Windows 7

Advantages of Using 64-bit Editions of Windows 7

Options for Installing Windows 7

Performing a Clean Installation of Windows 7

Discussion: Considerations for a Clean Installation

Methods for Performing Clean Installation

Discussion: Common Installation Errors

Demo - Configuring the Computer Name and Domain/Workgroup Settings

Upgrading and Migrating to Windows 7

Considerations for Upgrading and Migrating to Windows 7

Identifying the Valid Upgrade Paths

Determining the Feasibility of an Upgrade Using Windows Upgrade Advisor

Process for Upgrading to Windows 7

Tools for Migrating User Data and Settings

Process for Migrating to Windows 7

Migrating User Settings and Data by Using WET

Performing Image-based Installation of Windows 7

What is Windows Imaging File Format?

Tools for Performing Image-based Installation

Image-based Installation Process

Building a Reference Installation by Using SysPrep

Capturing and Applying the Installation Image by Using ImageX

Migrating User Settings and Data by Using USMT 4.0

Configuring VHDs

Configuring Application Compatibility

Common Application Compatibility Problems

Common Mitigation Methods

Updating Shims

Module 01 - Review

Module 02 - Managing Disks and Device Drivers

1h 8m

Partitioning Disks in Windows 7

What is an MBR Disk?

What is a GPT Disk?

Disk Management Tools

Demo - Converting an MBR Partition to a GPT Partition

Managing Disk Volumes

What is a Simple Volume?

Demo: Creating a Simple Volume

What are Spanned and Striped Volumes?

Demo - Creating Spanned Volumes

Demo - Creating Striped Volumes

Purpose of Resizing a Volume

Demo - Resizing a Volume

Maintaining Disks in Windows 7

What is Disk Fragmentation?

Defragment a Disk

What are Disk Quotas?

Demo - Configuring Disk Quotas

Installing and Configuring Device Drivers

Overview of Device Drivers in Windows 7

Installing Devices and Drivers

Device Driver Management Tools

Options for Updating Drivers

Managing Signed Drivers

Discussion: Options for Recovering from a Driver Problem

Demo - Managing Drivers by Using Device Manager

Module 02 - Review

Module 03 - File Sharing and Printers Configuration

1h 10m

Overview of Authentication and Authorization

What are Authentication and Authorization?

Authentication and Authorization Process

New Authentication Features in Windows 7

Managing File Access in Windows 7

What are NTFS Permissions?

What is Permission Inheritance?

Demo - Configuring NTFS Permissions for Files and Folders

Impact of Copying and Moving Files and Folders on set Permissions

What are Effective Permissions?

Discussion: Determining Effective Permissions

Managing Shared Folders

What are Shared Folders?

Methods of Sharing Folders

Discussion: Combining NTFS and Share Permissions

The Network and Sharing Center

Configuring File Compression

What is NTFS File Compression?

Discussion: Impact of Moving and Copying Compression Files and Folders

What are Compressed (zipped) Folders?

Demo - Compressing Files and Folders

Managing Printing

Printing Components in Windows 7

Demo - Installing and Sharing a Printer

Managing Client-Side Printing

Configuring Location-aware Printing

Module 03 - Review

Module 04 - IPv4 and IPv6 Network Connectivity

1h 16m

Configuring IPv4 Network Connectivity

What is an IPv4 Address?

What is a Subnet Mask?

What is a Default Gateway?

What are Public and Private IPv4 Addresses?

Demo - Configuring an IPv4 Address

Types of Computer Names

Methods for Resolving Computer Names

Configuring IPv6 Network Connectivity

Benefits of Using IPv6

Windows 7 Support for IPv6

What is the IPv6 Address Space?

IPv6 Address Types

Demo - Configuring an IPv6 Address

Implementing Automatic IP Address Allocation

Automatic IPv4 Configuring Process

Automatic IPv6 Configuring Process

Demo - Configuring a Computer to Obtain an IPv4 Address Dynamically

Troubleshooting Client-Side DHCP Issues

Troubleshooting Network Issues

Tools for Troubleshooting Networks

Process for Troubleshooting Networks

Demo - How to Troubleshoot Network-Related Problems

Module 04 - Review

Module 05 - Setup Wireless Networks

18m

Overview of Wireless Networks

What is a Wireless Network?

Wireless Network Technologies

Security Protocols for a Wireless Network

Configuring a Wireless Network

Configuring Hardware for Connecting to a Wireless Network

Wireless Network Settings

Improving the Wireless Signal Strength

Process for Troubleshooting a Wireless Network Connection

Module 05 - Review

Module 06 - Desktop Security

2h 20m

Overview of Security Management in Windows 7

Key Security Features in Windows 7

What is Action Center?

Demo - Configuring Action Center Settings

Securing a Windows 7 Client Computer by Using Local Security Policy Settings

What is Group Policy?

How are Group Policy Objects Applied?

How Multiple Local Group Policies Work

Demo - Creating Multiple Local Group Policies

Demo - Configuring Local Security Policy Settings

Securing Data by Using EFS and BitLocker

What is EFS?

Demo - Encrypting and Decrypting Files and Folders by Using EFS

What is BitLocker?

BitLocker Requirements

BitLocker Modes

Group Policy Settings for BitLocker

Configuring BitLocker

Configuring BitLocker To Go

Recovering BitLocker Encrypted Drives

Configuring Application Restrictions

What is AppLocker?

AppLocker Rules

Demo - Configuring AppLocker

What are Software Restriction Policies?

Configuring User Account Control

What is UAC?

How UAC Works

Demo - Configuring Group Policy

Configuring UAC Notification Settings

Configuring Windows Firewall

Discussion: What is a Firewall?

Configuring the Basic Firewall Settings

Windows Firewall with Advanced Security Settings

Well-Known Ports Used by Applications

Demo - Configuring Inbound, Outbound, and Connection Security Rules

Configuring Security Settings in Internet Explorer 8

Discussion: Compatibility Features in Internet Explorer 8

Enhanced Privacy Features in Internet Explorer 8

The SmartScreen Feature in Internet Explorer 8

Other Security Features in Internet Explorer 8

Demo - Configuring Security in Internet Explorer 8

Configuring Windows Defender

What is Malicious Software?

What is Windows Defender?

Scanning Options in Windows Defender

Demo - Configuring Windows Defender Settings

Module 06 - Review

Module 07 - Managing Windows 7 Client Performance

52m

Maintaining Performance by Using the Windows 7 Performance Tools

Discussion: What Are Performance and Reliability Problems?

Performance Information and Tools

Performance Monitor and Data Collector Sets

Demo - Using the Resource Monitor

Demo - Analyzing System Performance by Using Data Collector Sets and Performance Monitor

Considerations for Monitoring System Performance in Windows 7

Maintaining Reliability by Using the Windows 7 Diagnostic Tools

Problems That Windows Diagnostic Tools Can Help Solve

The Windows Memory Diagnostics Tool

Windows Network Diagnostics Tools

Reliability Monitor and Problems Reports and Solutions Tool

Windows Startup and Recovery

Backing Up and Restoring Data by Using Windows Backup

Discussion: Need for Backing Up Data

Backup and Restore Tool

Demo - Perform a Backup

Restoring a Windows 7 System by Using System Restore Points

How System Restore works

What are Previous Versions of Files?

Configuring System Protection Settings

Demo - Restore a System

Configuring Windows Update

What is Windows Update?

Configuring Windows Update Settings

Windows Update Group Policy Settings

Module 07 – Review

Module 08 - Mobile Computing with Windows 7

34m

Configuring Mobile Computer and Device Settings

Discussion: Types of Mobile Computers and Devices

Tools for Configuring Mobile Computer and Device Settings

What are Mobile Device Sync Partnerships?

Power Plans and Power-Saving Options in Windows 7

Demo - How to Configure a Power Plan

Configuring Remote Desktop and Remote Assistance for Remote Access

What are Remote Desktop and Remote Assistance?

Configuring Remote Desktop

Configuring DirectAccess for Remote Access

What is a VPN?

Creating a VPN Connection

What is DirectAccess?

How DirectAccess Works

DirectAccess Requirements

Configuring BranchCache for Remote Access

What is BranchCache?

How BranchCache Works

BranchCache Requirements

Demo - Configuring BranchCache on a Windows 7 Client Computer

Module 08 - Review

Total Duration: 8h 40m