

Windows 7 Configuration

- **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

Course Introduction

4m

Chapter 01 - Basic Windows 7 Installation

30m

Lesson: Installation Options

New Features of Windows 7

Minimum Hardware Requirements

Why Use 64-bit Windows 7

Installation Options

Windows 7 Offerings

Lesson: Choosing To Do the Clean Install

Discussion: Considerations for a Clean Installation

Discussion: Common Installation Errors

Ways To Do A Clean Installation

Demo - Configuring the Computer Name and Domain/Workgroup Settings

Chapter 01 Review

Chapter 02 - Advanced Windows 7 Installation

33m

Lesson: Performing an Image Installation

What is Windows Imaging File Format?

Which Tools You Can Use

The Process for Image-Based Installation

Using SysPrep

Capturing and Applying the Installation Image by Using ImageX

Migrating User Data and Settings by Using USMT 4.0

Configuring VHDs

Lesson: Doing an Upgrade or Migration to Windows 7

How to Choose Migration or Upgrade

Upgrade Paths

Determining the Feasibility of an Upgrade Using Windows Upgrade Advisor

Steps to Upgrade to Windows 7

Ways to Migrate User Data and Settings

Steps to Migrate to Windows 7

Migrating User Settings and Data by Using WET

Lesson: Planning for Application Compatibility

Common Compatibility Problems

Common Mitigation Methods

Updating Shims

Chapter 02 Review

Chapter 03 - Understanding Disk Types and File Systems

52m

Lesson: Windows 7 Disk Types and Formats

The MBR Disk

The GPT Disk

Tools for Disk Management

Demo - Converting an MBR Partition to a GPT Partition

Lesson: Managing Hard Drives with Volumes

A Simple Volume
Demo - Creating a Simple Volume
What are Spanned and Striped Volumes?
Demo - Creating Spanned Volumes
Demo - Creating Striped Volumes
Why Would you Resize a Volume?
Demo - Resizing a Volume
Lesson: Hard Drive Maintenance
Disk Fragmentation
How to Defragment a Disk
Disk Quotas
Demo - Configuring Disk Quotas
Chapter 03 Review

Chapter 04 - Network Configuration

1h 36m

Lesson: IP Addressing

Understanding the IPv4 Address
Understanding the Subnet Mask
Public and Private Address Space
Why the Default Gateway
Demo - Configuring an IPv4 Address
Types of Computer Names
Methods for Resolving Computer Names
Why IPv6
Windows 7 Support for IPv6
Understanding the IPv6 Address Space
Types of IPv6 Address Scopes
Demo - Configuring an IPv6 Address

Lesson: Auto IP Configuration

Auto Configuration of IPv4 Settings
Auto Configuration of IPv6 Settings
Demo - Configuring a Computer to Obtain an IPv4 Address Dynamically
Troubleshooting Client-Side DHCP Issues

Lesson: Troubleshooting Networking

Troubleshooting Tools
Troubleshooting Methodology
Demo - How to Troubleshoot Network-Related Problems

Lesson: Introducing Wireless Networks

Describing a Wireless Network
Technologies Used in WiFi
How Do You Secure WiFi?

Lesson: Connecting Windows 7 to the Wireless Network

Configuring the Hardware
Wireless Network Settings
How to Improve WiFi Signal Strength

Troubleshooting WiFi Connections
Chapter 04 Review

Chapter 05 - Sharing Files, Folders, and Printers

1h 10m

Lesson: Planning for Authentication and Authorization

Understanding Authentication and Authorization
The Process of Authentication and Authorization
New Authentication Features

Lesson: Securing File Access

NTFS Permission
Permission Inheritance
Demo - Configuring NTFS Permissions for Files and Folders
How Permissions May Change with File Copy or Moving
What are Effective Permissions?
Discussion: Determining Effective Permissions

Lesson: Compressing Files

What is NTFS File Compression?
How Compression Settings are Affected with File Move or Copy
Zipped Folders
Demo - Compressing Files and Folders

Lesson: Sharing Folders and Printers

What are Shared Folders?
Ways to Share Folders
Discussion: Combining NTFS and Share Permissions
Using the Network and Sharing Center
Managing Printing
Printing Components in Windows 7
Demo - Installing and Sharing a Printer
Location-Aware Printing
Client-Side Printing
Chapter 05 Review

Chapter 06 - Working with Windows 7 Client Performance

46m

Lesson: Installing and Configuring Device Drivers

Overview of Device Drivers
How to Install Devices and Drivers
Tools for Device Driver Management
Methods for Updating Drivers
Managing Signed Drivers
Discussion: Options for Recovering from a Driver Problem
Demo - Managing Drivers by Using Device Manager

Lesson: Windows 7 Performance Monitoring Tools

Discussion: What Are Performance and Reliability Problems?
Tools to Gather Performance Information
Monitoring Performance and Using Data Collector Sets

Demo - Using the Resource Monitor
Demo - Analyzing System Performance by Using Data Collector Sets and Performance Monitor
How Performance Monitor Can Help You
Lesson: Monitoring Reliability of Windows 7
How WDT Can Help You Solve Problems
Windows Network Diagnostics Tools
Windows Startup and Recovery
Introducing the Windows Memory Diagnostics Tool
Looking at the Reliability Monitor and Problems Reports and Solutions Tool
Chapter 06 Review

Chapter 07 - Basic Desktop Security

1h 14m

Lesson: Discussion of Security Management in Windows 7

New Security Features in Windows 7
Introducing the New Action Center
Demo - Configuring Action Center Settings
Lesson: Using Windows Defender
Watch Out for Malware
What is Windows Defender?
How Windows Defender Can Help You
Demo - Configuring Windows Defender Settings

Lesson: How does UAC Work?

Revisiting UAC
Improvements to How UAC Works
Demo - Configuring Group Policy
Getting Your Notifications

Lesson: Using Windows Firewall

Discussion: What is a Firewall?
Basic Firewall Settings
Advanced Security Options
Know Your "Well-Known" Ports
Demo - Configuring Inbound, Outbound, and Connection Security Rules
Chapter 07 Review

Chapter 08 - Advanced Desktop Security

1h 10m

Lesson: Using Local Policies to Secure Windows 7

Introducing Group Policies
How GPOs are Applied
Order of Operations for Multiple Policies
Demo - Creating Multiple Local Group Policies
Demo - Configuring Local Security Policy Settings

Lesson: How EFS and BitLocker Secure Your Data

EFS
Demo - Encrypting and Decrypting Files and Folders by Using EFS
Introducing BitLocker

BitLocker Requirements
BitLocker Modes
Setting BitLocker Options with Group Policies
Configuring BitLocker
Configuring BitLocker To Go
Recovering BitLocker Encrypted Drives
Lesson: Security With Application Restrictions

Introducing AppLocker
AppLocker Rules
Demo - Configuring AppLocker
What are Software Restriction Policies?

Lesson: IE Version 8 Privacy Features
Discussion: Compatibility Features in Internet Explorer 8
Internet Explorer 8's Enhanced Privacy Features
Using the SmartScreen Feature in Internet Explorer 8
Other Security Features in Internet Explorer 8
Demo - Configuring Security in Internet Explorer 8
Chapter 08 Review

Chapter 09 - Disaster Recovery & Prevention

27m

Lesson: Backing Up and Restore Options with Windows 7

Discussion: Why Do Backups?
Introducing the Backup and Restore Tool
Demo - Perform a Backup

Lesson: How System Restore Works

Using Previous File Versions
Configuring System Protection Settings
Demo - Restore a System

Lesson: Using the Windows Update

What is Windows Update?
Using Windows Update Settings
Windows Updates with GPOs
Chapter 09 Review

Chapter 10 - Remote Access Options

34m

Lesson: Configuring Windows 7 for Mobility

Discussion: What Devices Would be Considered Mobile?
Settings to Configure on Mobile Computers
What is a Sync Partnerships?
Managing Power Options in Windows 7
Demo - How to Configure a Power Plan

Lesson: Remote Access Solutions

Introducing Remote Desktop and Remote Assistance
Setting Up Remote Desktop

Understanding VPN Connections

How to Make a VPN
What is DirectAccess?
How DirectAccess Works
Requirements for Setting Up DirectAccess
What is BranchCache?
How BranchCache Works
Requirements for Setting Up BranchCache
Demo - Configuring BranchCache on a Windows 7 Client Computer
Chapter 10 Review

Chapter 11 - Introducing Windows PowerShell 2.0

20m

Lesson: What is Windows PowerShell 2.0?

Overview of Windows PowerShell
Improvements in Windows PowerShell 2.0
Using cmdlets in Windows PowerShell 2.0
Understanding Windows PowerShell Eventing
Introducing the Windows PowerShell 2.0 Integrated Scripting Environment (ISE)
Operating the Windows PowerShell ISE Editor

Lesson: Remoting With Windows PowerShell 2.0

Overview of Windows PowerShell Remoting
How to Connect to a Remote Computer
Processing of Remote Commands
Issuing Remote Commands

Lesson: Configuring Group Policy with PowerShell 2.0

PowerShell 2.0 Has New cmdlets for Group Policy Administration
Requirements for Group Policy
Chapter 11 Review
Course Closure

Total Duration: 9h 16m