

Configuring a Windows Server 2008 Applications Infrastructure

- **Course Number:** 70-643
- **Course Length:** 5 Days

Course Overview

The MCTS credential enables professionals to target specific technologies and distinguish themselves by demonstrating in-depth knowledge and expertise in their subject area technologies. A Microsoft Certified Technology Specialist in Windows Server 2008 Applications Infrastructure Configuration possesses the knowledge and skills to work with deploying servers, as well as configuring terminal services, a web services infrastructure, and network application services.

Prerequisites/Audience

The Microsoft Certified Technology Specialist (MCTS) on Windows Server 2008 credential is intended for information technology (IT) professionals who work in the complex computing environment of medium to large companies. The MCTS candidate should have at least one year of experience implementing and administering a network operating system in an environment that has the following characteristics:

- 250 to 5,000 or more users
- Three or more physical locations
- Three or more domain controllers
- Network services and resources such as messaging, a database, file and print, a proxy server, a firewall, the Internet, an intranet, remote access, and client computer management
- Connectivity requirements such as connecting branch offices and individual users in remote locations to the corporate network and connecting corporate networks to the Internet

Certification Exam

The Microsoft exam associated with this course is:

- 70-643: TS: Windows Server 2008 Applications Infrastructure, Configuring

Course Outline - Part 1

Course Introduction

7 min

Course Introduction

Module 01 - IIS 7 Web Server Installation and Configuration

2h 30m

IIS 7 Web Server Installation and Configuration

Introduction to IIS 7.0

Workloads

Installation Methods

Installing in a Virtualized Environment

Demo - Installing IIS

IIS Configuration

Configuration Files

Application Development Features

Configuration Health and Diagnostic Features

Configuring HTTP Features

Configuring Performance Features

Configuring Security Features

Configuring SMTP Features

Demo - IIS Create Website

Module 01 - Review

Module 02 - WebSites and Application Pools Configuration

1h 27m

WebSites and Application Pools Configuration

How Are Web Sites and Application Pools Used?

Review of the Unified Request Processing Pipeline in 7.0

How Does Authentication Work in IIS 7.0?

Review of Authentication Types

What Are the Default Application Pool Properties?

Creating a Web Site

What is a Web Application?

Creating a Web Application

Creating a Virtual Directory

Configuring Authentication

Hosting Web Sites in a Virtualized Environment

Demo - Authenticating and Creating Virtual Directories

Creating an Application Pool

Setting Basic Properties of an Application Pool

Demo - Websites Application Pools

Setting Advanced Properties of an Application Pool

Recycling Application Pools

Edit Application Pools Advanced Properties

Managing Authentication

Module 02 - Review

Module 03 - ASP.NET Application Settings

1h 5m

ASP.NET Application Settings

Review of the ASP.NET Platform

Installing the ASP.NET Role Service
Configuring Error Messages
Demo - Custom Errors
When to Use Stage and Deploy
Configuring ASP.NET Compilation and Globalization Settings
Configuring ASP.NET Session State and Pages and Controls
Configuring ASP.NET Connection Strings and Providers
Configuring ASP.NET Application Settings and Machine Key
Demo - Configuring ASP.Net
Configuring File and Folder Security
Configuring Advanced Security to Reduce Attack Area
Adding ISAPI Filters
Configuring .NET Trust Levels
Demo - Configure Application Settings
Module 03 - Review

Module 04 - IIS Modules Configuration

1h 4m

IIS Modules Configuration
Review of IIS 6.0 Request Processing
Review of IIS 7.0 Request Processing
Comparing IIS 7.0 Modules with ISAPI Filters
Comparing Handles with Modules
Reviewing Native Modules Registered by Default
Reviewing Native Modules Not Registered by Default
Understanding Information in Application Host.config
Registering a Native Module
Editing Registration for a Native Module
Configuring Native Modules with IIS Manager
Using the IIS Manager to Enable a Native Module
Reviewing the Native Modules Dialog Boxes
Removing a Native Module
Removing a Native Module by Editing the Config File
Using and Installing Managed Modules
Configuring a Managed Module
Editing a Managed Module Using the IIS Manager
Editing a Managed Module Using the Command Line
Removing a Managed Module Using the IIS Manager
Demo - Configuring Modules
Module 04 - Review

Module 05 - IIS 7 Web Server Security

1h 27m

IIS 7 Web Server Security
Managing IIS 7.0 Security
Reviewing Features That Can Be Used to Secure IIS
Managing IP and Domain Restrictions
Reviewing Authorization Rules
Configuring Authorization Rules
Managing Authentication
Managing Application Security
Demo - Configure Authentication and Access

Managing Rights and Permissions to Web Site Files
Demo - Securing Sites
Configuring Access Using Authentication
Reviewing Certificates
Managing Certificate to Secure Web Sites
Managing Certificate to Secure Web Servers
Demo - Configure Secure Webserver
Managing Request Filtering
Minimizing the Modules to Secure the Web Server
Using RPCover HTTPS
Permitting a User or Group to Connect to a Site
Defining ISAPI and CGI Application Restrictions
Logging Operations Overview
Managing Logging to Secure Web Sites and Servers
Reviewing Information Available to Log
Reviewing Best Practices for Maintaining IIS Logs
Module 05 - Review

Module 06 - Remote Server and Web Sites Administration

47m

Remote Server and Web Sites Administration
Remote Administration Overview and Service Settings
Remote Administration Connection Settings
Configuring Remote Administration for IIS Server
Demo - Configure Remote Admin
HTTP with SSL vs. DCOM for Remote Administration
Distributed Configuration System Overview
How to Delegate Administrative Rights
Demo - Delegated Administration
Feature Delegation in IIS 7.0
Feature Delegation Options
Default Feature Delegation Settings
Demo - Delegation and Remote Administration
Feature Delegation With Remote Management
Best Practices for Feature Delegation
Module 06 - Review

Module 07 - Maintain Web Servers using Command-line and Scripting

1h 49m

Maintain Web Servers using Command-line and Scripting
IIS 7.0 Management
PowerShell Overview
Benefits of Using PowerShell
Demo - Scripting Using PowerShell
Demo - IIS and PowerShell
Benefits of Using Microsoft.Web.Administration APIs
Benefits of AppCmd.exe and Command-line Scripts
Using Scripts for Administrative Tasks
How to Use AppCmd: COMMAND Options
How to Use AppCmd: OBJECT Options
Using AppCmd to Manage IIS 7.0 Tasks
Demo - Scripting Using AppCmd

PowerShell Command-lets for IIS 7.0
Using PowerShell to Manage IIS 7.0 Tasks
Using WMI Provider to Manage IIS 7.0 Tasks
Demo - Add and Change Settings Using PowerShell
Demo - Run Time Data
Advanced Settings
Module 07 - Review

Module 08 - Manage IIS Web Server Performance

46m

Manage IIS Web Server Performance
Impact of Global Changes on Worker Process
Why Consolidate Server Roles?
Configure Web Site Limitations
Configuring Cache Settings
Demo - Configuring IIS Performance
Guidelines for Configuring Compression
How to Install and Configure WSRM
Demo - Tuning IIS
Configuring Logging Frequency
Managing Application Pools
Demo - Applying Applications
Module 08 - Review

Module 09 - Website Availability and Load Balancing

17m

Website Availability and Load Balancing
Performing Web Server Backup Validation
Pros and Cons Offline Configuration Files vs. DFS
Reviewing the Benefits of Using Shared Configurations
Enabling Shared Configuration with the IIS Manager
Enabling Shared Configuration from the Command Line
Impact if Shared Configuration is Offline
Shared Configurations Best Practices
Configuring NLB Using Shared Configurations
Reviewing NLB IIS Server Farms Best Practices
Module 09 - Review

Module 10 - Web Server Troubleshooting

33m

Web Server Troubleshooting
When to Monitor for Critical Errors
Creating a Failed Request Tracing Rule to Monitor Critical Errors
Configuring Selective Logging for an Application
Best Practices for Logging
Enabling Trace Logging
Demo - Troubleshooting
Demo - Troubleshooting Authentication
Demo - Troubleshooting Authorization
Common Communication Error Messages
Common Causes of Communication Errors
Common Configuration Error Messages
Common Causes of Configuration Errors

Module 10 - Review
Course Closure

Course Outline - Part 2

Course Introduction

3 min

Course Introduction

Module 01 - Installing and Configuring TS Core Functionality

1h 6m

Installing and Configuring TS Core Functionality

TS Features

Installing the TS Server Role Service

Demo - Install and Configuring TS

Authentication Modes

TS Core Functionality

Remote Desktop Connection Display

Remote Desktop Experience

Device Redirection

Standalone Instance vs. Farm

Restricting Remote Connection Sessions

Configuring Other TS Settings

Configuring Performance Features

Module 01 - Review

Module 02 - TS Licensing Configuration

12m

TS Licensing Configuration

TS Licensing Role

TS Licensing Manager Snap-In

TS Client Access Licenses

Installing the TS Licensing Role Service

Configuring the Terminal Server for Licensing

Managing TS Client Access Licenses

Troubleshooting Licenses

Module 02 - Review

Module 03 - TS Connections Troubleshooting

1h 4m

TS Connections Troubleshooting

Introduction to TS Properties

Introduction to the TS Connection Properties

Demo - Configure and Troubleshooting Connection

Configuring the Maximum Number of Simultaneous Connections

Configuring Authentication and Encryption

Configuring the Desktop Experience

Using Group Policy to Configure the TS Connection Properties

Introduction to Single Sign-On

Considerations for Configuring Single Sign-On

Troubleshooting Connectivity Issues

Demo - TS Connection
Module 03 - Review

Module 04 - TS RemoteApp and EasyPrint

52m

TS RemoteApp and EasyPrint
Types of Applications
Considerations for Installing Applications
Demo - Configuring RemoteApp and EasyPrint
Introduction to TS RemoteApp Programs
Advantages of Using RemoteApp Programs
Methods for Deploying RemoteApp Programs
Considerations for Connecting to TS Web Access
TS Easy Print
Considerations for Using TS Easy Print
Configuring Group Policy for Printer Redirection
Demo - Configure RemoteApp
Module 04 - Review

Module 05 - TS Web Access and Session Broker

29m

TS Web Access and Session Broker
Introduction to TS Web Access
TS Web Access
Considerations for Installing TS Web Access
Demo - Configure TS Web Access
Deploying the TS Web Access Web Part
Connecting to Remote Desktop Web by Using TS Web Access
Introduction to TS Session Broker
Prerequisites for Configuring TS Session Broker
Module 05 - Review

Module 06 - TS Gateway Troubleshooting

29m

TS Gateway Troubleshooting
Requirements for TS Gateway
Configuring TS Gateway
Demo - Configure and Troubleshoot TS Gateway
Obtaining Certificates
Monitoring Active Connections Through TS Gateway
Troubleshooting TS Gateway
Demo - TS Gateway
Module 06 - Review

Module 07 - Managing and Monitoring TS Connections

32m

Managing and Monitoring TS Connections
Monitoring the TS Connections
Introduction to WSRM
Features of WSRM
Configuring Windows System Resource Manager

Demo - Manage and Monitor TS
Demo - Introduction to PowerShell
Module 07 - Review
Course Closure

Total Duration: 16h 42m