

# Configuring and Troubleshooting Internet Information Services in Windows Server 2008

- **Course Number:** 6427
- **Course Length:** 3 Days

## Course Overview

In this 3-day instructor-led course, the students will learn to install, configure, maintain, and troubleshoot an Internet Information Services (IIS) 7.0 Web Server in Windows Server 2008.

## Prerequisites

Before attending this course, students must have:

- Course 6420 Foundational Series: Fundamentals of a Windows Server 2008 Network Infrastructure and Application Platform.

Or

- A minimum of 1 year of experience administering and supporting a Web Server role using Windows Server 2003.
- Network + certification.

## Audience

The primary audience for this course is individuals who want to become a Web Server Administrator in an enterprise environment. Also, individuals who are assuming a new role requiring skills to manage content served by an IIS 7.0 Web Server over an intranet, extranet, and internet would be interested in this course.

The secondary audience for this course is individuals who are Web-based application developers who also possess networking skills.

## Course Outline

### Course Introduction

7m

Course Introduction

### Module 01 - Configuring IIS 7.0 Web Server

2h 38m

Configuring IIS 7.0 Web Server

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 - Configuring IIS 7.0 Web Sites and Application Pools**

1h 26m

Configuring IIS 7.0 Web Sites and Application Pools  
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 - Configuring IIS 7.0 Application Settings**

1h 5m

Configuring IIS 7.0 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 7.0 Modules**

1h 4m

IIS 7.0 Modules  
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 - Securing the IIS 7.0 Web Server and Web Sites**

1h 27m

Securing the IIS 7.0 Web Server and Web Sites  
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 - Configuring Delegation and Remote Administration**

47m

Configuring Delegation and Remote 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 - Command-line and Scripting for IIS 7.0 Administration**

1h 51m

Command-line and Scripting for IIS 7.0 Administration  
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 - Tuning IIS 7.0 for Improved Performance**

46m

Tuning IIS 7.0 for Improved 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 - Ensuring Website Availability with Web Farms**

17m

Ensuring Website Availability with Web Farms  
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 - Troubleshooting IIS 7.0 Web Servers**

33m

Troubleshooting IIS 7.0 Web Servers  
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  
Common Communication Error Messages

Common Causes of Communication Errors

Common Configuration Error Messages

Common Causes of Configuration Errors

Module 10 - Review

Course Closure

**Total Duration: 12h 3m**