

# Masterclass: Advanced Internet Information Services Management (IIS 8.5 / 8 / 7.5)

by Paula Januszkiewicz (3 days)



#### Paula Januszkiewicz

Paula Januszkiewicz is the world-known Security Expert. Loves to perform Penetration Tests, IT Security Audits and after all she says: 'harden'em all'! Enterprise Security MVP and trainer (MCT) and Microsoft Security Trusted Advisor.

Paula says: You will not find better course on IIS! Once CQURE team delivered IIS course for our Customer for 3 weeks - can you imagine that this was not enough? IIS is such a great and enormous platform! Everybody uses it but we are not quite sure how it works. I am really excited to explain all details – always!

#### **Overview**

Course exists in three editions: IIS 7.5 and IIS 8.0 and IIS 8.5, so it depends on your needs and interests what edition is better for you. Internet Information Services is a solution that can be

delivered in couple of hours as well as in 3 weeks - we practiced both options! IIS is a never-ending subject that requires a deep-dive if you consider to use it for web farm administration or if you want to become familiar with IIS behavior in particular situations. During this intensive 4 days training students will be introduced to the process of configuring advanced IIS features, configuring security settings, performing advanced troubleshooting and monitoring. You will learn everything you need to maintain and provide availability to the business Web Application platform.

## **Target audience**

Enterprise administrators, web administrators, infrastructure architects, security professionals, systems engineers, network administrators, IT professionals, security consultants and other people responsible for implementing network and perimeter security.

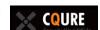
## **Perquisites**

To attend this training you should have attended course MS 6427A or have equivalent knowledge from the real--world experience.

#### **Materials**

Author's unique tools, over 150 pages of exercises, presentations slides with notes.







## **Detailed agenda**

## Module 1: Introducing, installing and configuring IIS 8.5 on Windows Server 2012

- 1. Introducing Internet Information Services 8.5
  - a. Administration tools
  - b. Architecture overview
  - c. Configuration System overview
- 2. Comparing IIS 7.5 to IIS 8.0/8.5
- 3. Installing the Web Server (IIS) role in Windows Server 2012 R2
  - a. Discussing the deployment scenarios
  - b. Using Server Manager
  - c. Using Unattended Setup
  - d. Using Command Line
  - e. Troubleshooting installation
- 4. Post-installation administration tasks
  - a. HTTP Features
  - b. Security Settings
  - c. Logging

## **Module 2: Administering Web Sites**

- 1. Creating a Web Site, Application, Virtual Directory
- 2. Managing Security settings for Web Sites
- 3. Administering Web Site logging
- 4. Configuring Failed Request Tracing
- 5. Managing Virtual Directories and remote content
- 6. Configuring Authentication Types
- 7. Configuring Bindings

## **Module 3: Administering Applications and Application Pools**

- 1. Managing Application Pools and Applications
- 2. Global Application Initializations
- 3. Managing Application Pool Identity
- 4. Managing Worker Processes and requests









- 5. CPU Throttling: Sand--boxing Sites and Applications
- 6. Idle Worker Process Page-Out

# **Module 4: Configuring Application Development Settings**

- 1. ASP.NET Security Settings
- 2. ASP.NET Application Development Settings
- 3. Configuring ASP.NET

## Module 5: IIS 8.5 functionality extensions

- 1. Architecture Extensions
  - a. CGI
  - b. FastCGI
  - c. ISAPI
  - d. ASP
- 2. Managing Extensions
  - a. Security
  - b. Delegation
- 3. Functionality Extensions
  - a. PHP
  - b. WebDAV
  - c. Media Services
  - d. URL Rewrite
- 4. Performance Extensions
  - a. Application WarmUp
- 5. Security Extensions
  - a. URLScan / URLRewrite
  - b. Dynamic IP Restrictions
- 6. Administrative extensions

#### Module 6: Managing IIS 8.5 Modules

- 1. Adding IIS 8.5 Modules
- 2. Administering IIS 8.5 Modules

# Module 7: Securing the IIS 8.5 platform and web environment

- 1. Configuring security settings on Windows Server 2012
- 2. Centralized SSL Certificate Support









- 3. Secure Web Site settings
- 4. Configuring authentication and authorization
- 5. Restricting Web Site access
- 6. Secure Web Server implementation scenario

## Module 8: IIS 8.5 Remote Management

- 1. Enabling and configuring remote administration
- 2. Enabling and configuring delegated administration
- 3. Enabling and configuring feature delegation
- 4. Managing applicationHost.config and Web.config access levels
- 5. Security considerations for remote management

## **Module 9: Configuring FTP Server on IIS 8.5**

- 1. Managing FTP Authentication
- 2. Managing FTP Authorization
- 3. Configuring FTP Logging
- 4. Configuring FTP Logon Attempt Restrictions
- 5. Administering FTP Request Filtering
- 6. Configuring FTP User Isolation

## Module 10: Managing IIS 8.5 from the command line

- 1. Tools overview
- 2. Advanced management with Powershell
- 3. Tools for Running Administrative Tasks in IIS
- 4. Automating management with Appcmd
- 5. IIS 8.5 and scripting
- 6. 3rd party management tools

# Module 11: Tuning IIS 8.5 health and performance

- 1. Performance monitoring techniques
- 2. Monitoring IIS 8.5 under attack
- 3. Optimizing IIS 8.5 settings for better performance
- 4. Implementation scenarios analysis











- 5. Dynamic site activation
- 6. Idle Worker Process Page--out
- 7. Using 3rd party tools for performance monitoring

## Module 12: Administering Web Server Availability with Web Farms

- 1. Shared Configuration
- 2. Advanced Network Load Balancing settings and configuration
- 3. Building the Web Farm
- 4. Managing the Web Farm
- 5. Automating tasks in multiple server IIS 8.5 environment
- 6. Policy based management
- 7. Server Name Indication (SNI) SSL Scalability
- 8. Backing Up an IIS Web Site
- 9. Restoring an IIS Web site
- 10. Multicore Scaling on NUMA hardware overview
- 11. Application Request routing

## Module 13: IIS 8.5 Diagnostics

- 1. Auditing IIS 8.5 logs
- 2. Enhanced Logging
- 3. Logging to Event Tracing for Windows
- 4. Common error messages and examples
- 5. Auditing communication problems and examples
- 6. Troubleshooting authentication problems
- 7. Troubleshooting authorization problems
- 8. Managing and understanding problems with configuration

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