



## Installing and Configuring Windows Server 2012 (20410A)

**Durata:** 5 giorni – **Orario:** 8:30 – 12:00 / 13:30 -17.00 – **Costo per persona:** CHF 1'900.-- (Min. 5 partecipanti)

### Obiettivi di formazione

Al termine del corso gli allievi saranno in grado di:

- Installare e configurare Windows Server 2012
- Implementare l'infrastruttura AD DS e installare e configurare i controller di dominio.
- Gestire oggetti AD DS.
- Automatizzare l'amministrazione AD DS.
- Gestire l'indirizzamento del Protocollo Internet versione 4 (IPv4).
- Gestire l'installazione e la configurazione di Dynamic Host Configuration Protocol (DHCP), oltre a gestire un database DHCP.
- Gestire la risoluzione dei nomi per i client del sistema operativo Windows e di Windows Server.
- Gestire l'implementazione del protocollo IPv6.
- Gestire le opzioni di storage per Windows Server 2012.
- Attivare e configurare i servizi di stampa in Windows Server 2012.
- Implementare Criteri di gruppo.
- Aumentare la sicurezza in una infrastruttura Windows Server 2012 tramite i Criteri di gruppo, AppLocker e Windows Firewall.
- Gestire le tecnologie di virtualizzazione Microsoft, tra cui Hyper-V.

### Criteri di ammissione

- conoscenza di base delle tecnologie di rete
- conoscenza intermedia sui sistemi operativi di rete
- un anno di esperienza nell'utilizzo di Windows Server
- conoscenza di base di Active Directory
- comprensione dei concetti di base di sicurezza
- conoscenza di base di TCP/IP
- conoscenza di base strumenti di scripting quali PowerShell e WMI

### Condizioni di rinuncia

Se annullate o rinviare la vostra iscrizione (su un altro corso o su un'altra sessione) per iscritto, al più tardi 10 giorni lavorativi prima dell'inizio di corso, siete liberati completamente dal pagamento della quota d'iscrizione al corso. Se annullate o rinviare la vostra iscrizione alla scadenza del termine, i costi vi saranno fatturati, come quanto segue:

- meno di 10 giorni lavorativi prima dell'inizio del corso 50% della quota
- meno di 3 giorni lavorativi prima dell'inizio del corso 100% della quota
- assenza del corso 100% della quota

### Certificazione

Possibilità di sostenere alla fine della formazione la certificazione 70-410



## Contenuti di formazione

### Module 1: Deploying and Managing Windows Server 2012

This module introduces the new Windows Server 2012 administrative interface. This module covers the different roles and features that are available with the Windows Server 2012 operating system. It also discusses the various installation and configuration options you can use when deploying and configuring Windows Server 2012.

#### Lessons

- Windows Server 2012 Overview
- Overview of Windows Server 2012 Management
- Installing Windows Server 2012
- Post-Installation Configuration of Windows Server 2012
- Introduction to Windows PowerShell

#### Lab : Deploying and Managing Windows Server 2012

- Deploying Windows Server 2012
- Configuring Windows Server 2012 Server Core Managing Servers
- Using Windows PowerShell to Manage Servers

After completing this module, students will be able to:

- Describe Windows Server 2012.
- Describe the management tools available in Windows Server 2012.
- Install Windows Server 2012.
- Perform post-installation configuration of Windows Server 2012.
- Perform basic administrative tasks using Windows PowerShell.

### Module 2: Introduction to Active Directory Domain Services

This module introduces Active Directory Domain Services (AD DS) in Windows Server 2012. It covers general AD DS infrastructure including forests, trees, schema, Global Catalog, Operations Masters. It also covers installing and configuring domain controllers.

#### Lessons

- Overview of AD DS
- Overview of Domain Controllers
- Installing a Domain Controller

#### Lab : Installing Domain Controllers

- Installing a Domain Controller
- Installing a Domain Controller by Using IFM

After completing this module, students will be able to:

- Describe the structure of Active Directory Domain Services (AD DS).
- Describe the purpose of domain controllers.
- Install a domain controller.

### Module 3: Managing Active Directory Domain Services Objects

This module covers configuring Active Directory Objects such as users, groups and computers. The functionality of AD DS Administrative Tools is addressed, in addition to the configuration of user profiles and the process of delegating permissions to perform AD DS administration.

#### Lessons

- Managing User Accounts
- Managing Group Accounts
- Managing Computer Accounts
- Delegating Administration

#### Lab : Managing Active Directory Domain Services Objects

- Delegating Administration for a Branch Office
- Creating and Configuring User Accounts in AD DS
- Managing Computer Objects in AD DS

After completing this module, students will be able to:

- Manage user accounts with graphical tools.
- Manage groups with graphical tools.
- Manage computer accounts.
- Delegate permissions to perform AD DS administration.



#### **Module 4: Automating Active Directory Domain Services Administration**

This module covers using command-line tools to configure and administer AD DS. It introduces using Windows PowerShell cmdlets for AD DS administration, and using Windows PowerShell to perform bulk AD DS administrative operations.

##### Lessons

- Using Command-line Tools for Administration
- Using Windows PowerShell for Administration
- Performing Bulk Operations with Windows PowerShell

Lab : Automating AD DS Administration by Using Windows PowerShell

- Creating User Accounts and Groups by Using Windows PowerShell
- Using Windows PowerShell to Create User Accounts in Bulk
- Using Windows PowerShell to Modify User Accounts in Bulk

After completing this module, students will be able to:

- Use command-line tools for AD DS administration.
- Use Windows PowerShell cmdlets for AD DS administration.
- Perform bulk operations by using Windows PowerShell.

#### **Module 5: Implementing IPv4**

This module covers Internet Protocol Version 4 (IPv4) addressing. It details the various IPv4 components, covers subnetting and supernetting, and discusses configuring and general troubleshooting of IPv4 addresses.

##### Lessons

- Overview of TCP/IP
- Understanding IPv4 Addressing
- Subnetting and Supernetting
- Configuring and Troubleshooting IPv4

Lab : Implementing IPv4

- Identifying Appropriate Subnets
- Troubleshooting IPv4

After completing this module, students will be able to:

- Describe the TCP/IP protocol suite.
- Describe IPv4 addressing.
- Determine a subnet mask necessary for supernetting or subnetting.
- Configure IPv4 and troubleshoot IPv4 communication.

#### **Module 6: Implementing DHCP**

This module covers the installation and configuration of DHCP as well as managing a DHCP database. It also covers security and monitoring of DHCP, including auditing and logging.

##### Lessons

- Installing a DHCP Server Role
- Configuring DHCP Scopes
- Managing a DHCP Database
- Securing and Monitoring DHCP

Lab : Implementing DHCP

- Implementing DHCP
- Implementing a DHCP Relay (Optional Exercise)

After completing this module, students will be able to:

- Install the DHCP server role.
- Configure DHCP scopes.
- Manage a DHCP database.
- Secure and monitor the DHCP server role.

#### **Module 7: Implementing DNS**

This module covers name resolution for Windows Server and clients. It details the installation of a DNS server and configuring Active Directory Integrated DNS zones.

##### Lessons

- Name Resolution for Windows Client and Servers
- Installing and Managing a DNS Server
- Managing DNS Zones

Lab : Implementing DNS

- Installing and Configuring DNS
- Creating Host Records in DNS
- Managing the DNS Server Cache



After completing this module, students will be able to:

- Describe name resolution for Windows operating system clients and Windows Server servers.
- Install and manage DNS service.
- Manage DNS zones.

### **Module 8: Implementing IPv6**

This module covers understanding and implementing IPv6 addressing. It covers configuration and troubleshooting as well as co-existence with IPv4 using transition technologies.

#### Lessons

- Overview of IPv6
- IPv6 Addressing
- Coexistence with IPv6
- IPv6 Transition Technologies

Lab : Implementing IPv6

- Configuring an IPv6 Network
- Configuring an ISATAP Router

After completing this module, students will be able to:

- Describe the features and benefits of IPv6.
- Describe IPv6 addressing.
- Describe IPv6 coexistence with IPv4.
- Describe IPv6 transition technologies.

### **Module 9: Implementing Local Storage**

This module covers the storage configuration options for Windows Server 2012, including managing disks and volumes and implementing file systems. It also covers creating and managing storage pools.

#### Lessons

- Overview of Storage
- Managing Disks and Volumes
- Implementing Storage Spaces

Lab : Implementing Local Storage

- Installing and Configuring a New Disk
- Resizing Volumes
- Configuring a Redundant Storage Space

After completing this module, students will be able to:

- Explain the various storage technologies.
- Manage disks and volumes.
- Implement Storage Spaces.

### **Module 10: Implementing File and Print Services**

This module covers securing files, folders and network file shares, in addition to using shadow copies to protect network file shares. It also covers configuring network printing and creating a printer pool.

#### Lessons

- Securing Files and Folders
- Protecting Shared Files and Folders Using Shadow Copies
- Configuring Network Printing

Lab : Implementing File and Print Services

- Creating and Configuring a File Share
- Configuring Shadow Copies
- Creating and Configure a Printer Pool

After completing this module, students will be able to:

- Secure shared files and folders.
- Protect shared files and folders by using shadow copies.
- Configure network printing.

### **Module 11: Implementing Group Policy**

This module covers using Group Policy to centrally manage and apply configuration settings.

#### Lessons

- Overview of Group Policy
- Group Policy Processing
- Implementing a Central Store for Administrative Templates

Lab : Implementing Group Policy

- Configuring a Central Store
- Creating GPOs

After completing this module, students will be able to:

- Create and manage Group Policy Objects.



Describe Group Policy processing.  
Implement a central store for administrative templates.

### **Module 12: Securing Windows Servers Using Group Policy Objects**

Increase security in a Windows Server 2012 infrastructure by using Group Policy Objects, AppLocker, and Windows Firewall.

#### Lessons

- Windows Security Overview
- Configuring Security Settings
- Restricting Software
- Configuring Windows Firewall with Advanced Security

#### Lab : Lab A: Increasing Security for Server Resources

- Using Group Policy to Secure Member Servers
- Auditing File System Access
- Auditing Domain Logons

#### Lab : Lab B: Configuring AppLocker and Windows Firewall

- Configuring AppLocker Policies
- Configuring Windows Firewall

After completing this module, students will be able to:

- Describe Windows Security.
- Configure security settings by using Group Policy.

Restrict unauthorized software from running on servers and clients.  
Configure Windows Firewall with Advanced Security.

### **Module 13: Implementing Server Virtualization with Hyper-V**

This module describes Microsoft Virtualization technologies. It covers installing and configuring Hyper-V virtual machines, configuring virtual storage, and configuring virtual networks.

#### Lessons

- Overview of Virtualization Technologies
- Implementing Hyper-V
- Managing Virtual Machine Storage
- Managing Virtual Networks

#### Lab : Implementing Server Virtualization with Hyper-V

- Installing the Hyper-V Server Role
- Configuring Virtual Networking
- Creating and Configuring a Virtual Machine
- Using Virtual Machine Snapshots

After completing this module, students will be able to:

- Understand and describe Microsoft's virtualization technologies.
- Implement Hyper-V.
- Manage virtual machine storage.
- Manage virtual networks.