

# Windows Server Administration («55371A»)

Ce cours, basé sur WS-011, retiré par Microsoft, permet aux professionnels de l'IT d'acquérir les compétences fondamentales en administration de Windows Server pour fournir et supporter Windows Server au sein d'une entreprise.

**Durée:** 5 jours

**Prix :** 3'950.- excl. 8.1% TVA

**Documents :** Support de cours numérique

## Contenu

### INFORMATION IMPORTANTE

Cette formation n'est pas une formation Microsoft officielle. Le contenu de cette formation est basé sur le cours WS-011, aujourd'hui abandonné par Microsoft, et développé par la communauté Microsoft.

Cette formation s'adresse aux expertes et experts responsables de la gestion de l'identité, des réseaux, du stockage et de la capacité de calcul lors de l'utilisation de Windows Server et qui doivent comprendre les scénarios, les exigences et options disponibles et applicables sur Windows Server.

#### Module 1: Windows Server Administration Overview

This module describes how to distinguish different Windows Server editions and techniques for deployment, servicing and activation. The module also introduces Windows Server Core and compares it with the Desktop Experience version. The module describes tools and concepts for administering Windows Server, such as Windows Admin Center, PowerShell, and delegation of privileges.

##### Lessons

- Introducing Windows Server
- Windows Server Core Overview
- Windows Server administration principles and tools overview

Lab 1: Deploying and configuring Windows Server

#### Module 2: Identity Services in Windows Server

This module introduces identity services and describes Active Directory Domain Services (AD DS) in a Windows Server environment. The module describes how to deploy domain controllers in AD DS, as well as the Azure Active Directory (AD) and the benefits of integrating Azure AD with AD DS. The module also covers Group Policy basics and how to configure group policy objects (GPOs) in a domain environment. Finally, the modules describes the role of Active Directory certificate services and certificate usage.

##### Lessons

- AD DS Overview
- Deploying Windows Server domain controllers
- Azure AD overview
- Implementing Group Policy
- Active Directory Certificate Services overview

Lab 1: Implementing Identity Services and Group Policy

#### Module 3: Network Infrastructure services in Windows Server

This module describes how to implement core network infrastructure services in Windows Server. The

modules covers how to deploy, configure and manage DNS and IPAM. The modules also describes how to use Remote Access Services.

#### Lessons

- Deploying and managing DHCP
- Deploying and managing DNS service
- Deploying and managing IPAM
- Remote Access Services in Windows Server

Lab 1: Implementing and configuring network infrastructure services in Windows Server

#### Module 4: File Servers and Storage management in Windows Server

This modules describes how to configure file servers and storage in Windows Server. The module covers file sharing and deployment of Storage Spaces technology. The module describes how to implement data deduplication, iSCSI based storage in Windows Server, and finally, how to deploy DFS.

#### Lessons

- Volumes and File Systems in Windows Server
- Implementing sharing in Windows Server
- Implementing Storage Spaces in Windows Server
- Implementing Data Deduplication
- Implementing iSCSI
- Deploying Distributed File System

Lab 1: Implementing storage solutions in Windows Server

#### Module 5: Hyper-V virtualization and containers in Windows Server

This modules describes how to implement and configure Hyper-V VMs and containers. The module covers key features of Hyper-V in Windows Server, describes VM settings, and how to configure VMs in Hyper-V. The module also covers security technologies used with virtualization, such as shielded VMs, Host Guardian Service, admin-trusted and TPM-trusted attestation, and KPS.

#### Lessons

- Hyper-V in Windows Server
- Configuring VMs
- Securing virtualization in Windows Server
- Containers in Windows Server
- Overview of Kubernetes

Lab 1: Implementing and configuring virtualization in Windows Server

#### Module 6: High Availability in Windows Server

This module describes current high availability technologies in Windows Server. The module describes failover clustering and considerations for implementing it, and how to create and configure failover clustering. The module also explains stretch clusters and options for achieving high availability with Hyper-V VMs.

#### Lessons

- Planning for failover clustering implementation
- Creating and configuring failover cluster
- Overview of stretch clusters
- High availability and disaster recovery solutions with Hyper-V VMs

Lab 1: Implementing failover clustering

#### Module 7: Disaster recovery in Windows Server

This module describes disaster recovery technologies in Windows Server and how to implement them.

The module covers how to configure and use Hyper-V Replica and describes Azure Site Recovery. The

module also covers how to implement Windows Server backup and describes the Azure Backup service.

#### Lessons

- Hyper-V Replica
- Backup and restore infrastructure in Windows Server

Lab 1: Implementing Hyper-V Replica and Windows Server Backup

#### Module 8: Windows Server security

This module describes Windows Server security features and how to implement them. The module covers credentials used in Windows Server and explains how to implement privileged access protection. In addition to describing methods and technologies for hardening Windows Server security, the module explains how to configure Just Enough Administration (JEA) and how to secure SMB traffic. Finally, the module covers Windows Update, its deployment and management options.

#### Lessons

- Credentials and privileged access protection
- Hardening Windows Server
- JEA in Windows Server
- Securing and analyzing SMB traffic
- Windows Server update management

Lab 1: Configuring security in Windows Server

#### Module 9: RDS in Windows Server

This module describes key Remote Desktop Protocol (RDP) and Virtual Desktop Infrastructure (VDI) features in Windows Server. The modules covers how to deploy session-based desktops and describes personal and poled virtual desktops.

#### Lessons

- Overview of RDS
- Configuring a session-based desktop deployment
- Overview of personal and pooled virtual desktops

Lab 1: Implementing RDS in Windows Server

#### Module 10: Remote access and web services in Windows Server

This module describes how to implement virtual private networks (VPNs), Network Policy Server (NPS), and Microsoft Internet Information Services (IIS). The module describes Always On VPN functionality, as well as how to configure NPS and Web Server (IIS) in Windows Server.

#### Lessons

- Implementing VPNs
- Implementing Always On VPN
- Implementing NPS
- Implementing Web Server in Windows Server

Lab 1: Deploying network workloads

#### Module 11: Server and performance monitoring in Windows Server

This module describes how to implement service and performance monitoring, and apply troubleshooting in Windows Server. The module highlights monitoring tools and describes how to monitor performance, including event logging and how to perform event logging monitoring for troubleshooting purposes.

#### Lessons

- Overview of Windows Server monitoring tools

- Using Performance Monitor
- Monitoring event logs for troubleshooting

Lab 1: Monitoring and troubleshooting Windows Server

## Module 12: Upgrade and migration in Windows Server

This module describes how to perform upgrades and migrations for AD DS, Storage, and Windows Server. The module covers tools to use for AD DS migration. The module also covers the Storage Migration Service, and finally, Windows Server migration tools and usage scenarios.

### Lessons

- AD DS migration
- Storage Migration Service
- Windows Server migration tools

Lab 1: Migrating Server workloads

## Objectifs

- Utilisation des techniques et outils de gestion dans Windows Server
- Mettre en œuvre les services de l'identité
- Gestion des services d'infrastructure réseau
- Configuration de serveurs de données et de stockage
- Gestion des machines virtuelles avec la virtualisation Hyper V et les conteneurs
- Implémentation de solutions de haute disponibilité et de récupération d'urgence
- Utiliser les fonctionnalités de sécurités pour protéger des ressources critiques
- Configuration des services de bureau à distance
- Configuration d'une infrastructure de bureau basée sur les machines virtuelles
- Implémentation de l'accès à distance et des services web
- Implémentation de la surveillance des services et des performances et de la résolution de problèmes
- Exécuter des mises à jour et des migrations liées à l'AD DS et au stockage

## Public cible

Cette formation s'adresse à des experts en IT qui ont déjà une certaine expérience avec Windows Server et cherchent une formation unique de 5 jours qui couvre les composants de gestion les plus importants et les technologies Windows Server 2019.

Ce cours aide également les administrateurs serveur de versions antérieures de Windows Server à actualiser leurs connaissances et compétences de Windows Server.

Ce cours s'adresse également aux personnes qui occupent un poste de support technique et désirent passer à la maintenance de serveur.

## Avez-vous une question ou souhaitez-vous organiser un cours en entreprise ?

Nous vous conseillons volontiers au +41 22 738 80 80 ou [romandie@digicomp.ch](mailto:romandie@digicomp.ch). Retrouvez toutes les informations détaillées concernant les dates sur [www.digicomp.ch/formations-microsoft-technology/microsoft-server/cours-windows-server-administration](http://www.digicomp.ch/formations-microsoft-technology/microsoft-server/cours-windows-server-administration)