

Windows Server Administration 2019/2022/2025



Training recipients

The training is addressed to:

- Administrator,
- HelpDesk,
- IT specialist

This 5-day course is addressed to IT specialists who are experienced in working with Windows Server. It is intended for experts who will be responsible for managing identity, mass storage and computing with the use of Windows Server system and who must understand scenarios, requirements and available options, as well as the ones applied in Windows Server. The course teaches IT specialists basic administration skills required to deploy and navigate Windows Server system in most organisations. This 5-day course is first of all addressed to IT specialists who have certain experience with Windows Server system. The course teaches IT specialists basic administration skills required to deploy and navigate Windows Server system in most organisations.

Main target audience of the course are as follows:

- Windows Server Administrators who have basic knowledge of Windows Server administration and related technologies, as well as who would like to know more about Windows Server.
- IT professionals with IT knowledge who would like to know more about Windows Server, especially on technologies of identity management in Windows Server system.
- IT specialists, who already have certain experience in working with Windows Server, and would like to expand or consolidate their knowledge.

An equivalent of withdrawn authorized WS-011 Windows Server 2019 Administration course



Benefits

- The use of techniques and administration tools in Windows Server system
- Implementing identity service
- Managing network infrastructure services
- An ability to configure file servers and mass storage
- Virtual machine management with virtualization and Hyper-V containers
- Implementing high-availability solution and Disaster Recovery
- An ability to apply security functions to protect critical resources
- Configuring Desktop services
- Configuring implementation of Desktop infrastructure based on virtual machine
- Implementing remote access and network services
- An ability to implement service and performance monitoring, as well as problem solving
- Performing updates and migrations related to AD DS. services, as well as mass storage.



Training program

1. Introduction
 - Training information
 - Training agenda
 - Laboratory environment
2. Discussing Windows Server administration
 - Introducing Windows Server
 - Discussing Windows Server Core system
 - Discussing rules and Windows Server administration tools
 - Laboratorium: Deploying and configuring Windows Server
 - Deploying and configuring Server Core
 - Implementing and using remote server administration
3. Identity services in Windows Server system
 - Discussing usług AD DS. services
 - Deploying Windows Server domain controllers
 - Discussing Azure AD services
 - Deploying group policies
 - Discussing certificate services in Active Directory
 - Laboratorium: Implementing identity services and group rules
 - Deploying new domain controller on Server Core
 - Configuring group rules

- Deploying and using certificate services
 - Explaining group rules and GPO object configuration fundamentals in domain environment
 - The role of Active Directory certificate services and the use of certificate
4. Network infrastructure services in Windows Server system
- Deploying and managing DHCP service
 - Deploying and managing DNS service
 - Deploying and managing IPAM service
 - Remote access services in Windows Server system
 - Laboratory: Implementing and configuring network infrastructure services in Windows Server system
 - Deploying and configuring DHCP
 - Deploying and configuring DNS
 - Implementing proxy server for Internet application
5. File servers and mass storage management in Windows Server system
- Volumes and file systems in Windows Server
 - Sharing implementation in Windows Server
 - Storage implementation in Windows Server
 - Implementing data deduplication
 - iSCSI implementation
 - Deploying distributed file system
 - Laboratory: Implementing mass storage solutions in Windows Server
 - Implementing data deduplication
 - Configuring iSCSI mass storage
 - Configuring excess storages
 - Deploying Direct storages
6. Hyper-V virtualization and containers in Windows Server
- Hyper-V in Windows Server
 - Configuring virtual machines
 - Securing virtualization in Windows Server
 - Containers in Windows Server
 - Discussing Kubernetes
 - Laboratory: Implementing and configuring virtualisation in Windows Server
 - Creating and configuring virtual machines
 - Installing and configuring containers
7. High availability in Windows Server
- Planning Disaster Recovery clusters implementation
 - Creating and configuring failover cluster
 - Review of stretched clusters
 - High availability and solutions for Disaster Recovery with Hyper-V virtual machines
 - Laboratory: Implementing Disaster Recovery clusters
 - Configuring warehouse and creating cluster
 - Deploying and configuring high availability file server

- Verifying the correctness of high availability file server deployment
8. Disaster Recovery in Windows Server
- Hyper-V replica
 - Creating back-ups and restoring infrastructure in Windows Server
 - Laboratory: Implementing Hyper-V replica and creating Windows Server back-ups
 - Deploying Hyper-V replica
 - Deploying back-up creation and restoring with the use of Windows Server back-up tool
9. Windows Server security
- Credentials and privileged access security
 - Hardening Windows Server
 - JEA in Windows Server
 - Securing and analysing SMB traffic
 - Windows Server update management
 - Laboratory: Configuring securities in Windows Server
 - Configuring funkcji Windows Defender credential protection
 - Locating problematic accounts
 - LAPS deployment
10. RDS in Windows Server
- RDS review
 - Configuring session based desktop deployment
 - Discussing personal and combined virtual desktops
 - Laboratory: Implementing RDS in Windows Server
 - Deploying RDS
 - Configuring settings of collecting sessions and using RDC
 - Configuring virtual desktop template
11. Remote access and network services in Windows Server
- Deploying VPN
 - Implementing Always On VPN
 - Deploying NPS
 - Implementing WWW server in Windows Server
 - Laboratory: Deploying network overloads
 - Implementing VPN in Windows Server
 - Deploying and configuring WWW server
12. Monitoring server and performance in Windows Server system
- Discussing Windows Server monitoring tools
 - The use of performance Monitor
 - Monitoring event logs for troubleshooting
 - Laboratory: Monitoring and Troubleshooting Windows Server
 - Specifying performance baseline
 - Identifying the source of performance problem
13. Updating and migrating Windows Server

- Migrating AD DS. services
- Mass storage service
- Windows Server migration tools
- Laboratory: Server overload migration
- Deploying mass storage migration



Expected preparation of the participant

Knowledge of ADDS administration fundamentals in systemach Windows Server systems, experience and understanding basic network technologies, such as IP addressing, name detection and Dynamic Host Configuration Protocol (DHCP).

Experience in working with Microsoft Hyper-V technology and basic concepts of server virtualization.

Knowledge of basic security best practices.

Experience in practical work with Windows Client systems such as Windows 10 or Windows 11.

Basic experience with Windows PowerShell.

An ability to use English materials.

To increase the comfort of work and training's effectiveness we suggest using an additional monitor. The lack of additional monitor does not exclude participation in the training, however, it significantly influences the comfort of work during classes.

You can find information and requirements of participation in Distance Learning trainings at:

<https://www.altkomakademia.pl/en/how-it-works/about-courses/>



Training Includes

- access to Altkom Akademia's student portal

Traning method:

- theory
- demonstrations
- shared projects
- individual laboratories

specifying theory vs. practice

- 50% theory
- 50% practice



Duration

5 days / 35 hours

Language

- Training: English
- Materials: English