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Windows Server 2019 Administration

Training recipients

The training is intended for the people responsible for Windows Server 2019 infrastructure management. The course is especially aimed at:

- experts who will be responsible for mass storage and calculation managment using Windows Server 2019 system.
- IT specialists who have certain experience in working with Windows Server system, and who would like to expand their knowledge and skills, as well as systematise their information in the area of storage and calculation in Windows Server 2019 system.
- Windows Server system administrators who are relatively new to managing Windows Server system and related technologies, and who would like to know more about functions of storing and calculations in Windows Server 2019 system,
- IT specialists with general IT knowledge, who would like to gain knowledge of Windows Server system, especially technologies of storage and calculations in Windows Server 2019 system

Benefits

Gaining knowledge and practical skills from Windows Server 2019 system management.
It includes:

- Methods of administrating different servers edition
- ADDS service and configuring objects using group policies
- Certificate server service
- Mechanisms of administering network services such as: DHCP, IPAM, NPS, DNS
- Configuring file services server and file deduplication mechanism
- iSCSI service configuration
- Implementing Hyper-V service, configuring Failover Cluster of the service, configuring the mechanism of virtual machine replication
- Windows Server 2019 system security issues
- Configuring RDS service

- Ways of implementing VPN service
- Mechanisms of monitoring operational systems
- Ways of migrating systems and ADDS service

Training program

1. Discussing Windows Server administration
- Introduction to **Windows Server 2019**
- Discussing Windows Server Core system
- Discussing the rules and Windows Server administration tools
2. Identity services in Windows Server system
- **AD DS**. service review
- Implementing Windows Server system domain controllers
- Discussing Azure AD service
- Implementing **Group Policy**
- Discussing certificate services in Active Directory
3. Network infrastructure services in Windows Server system
- Implementing and managing **DHCP**
- Implementing and managing **DNS** service
- Implementing and managing **IPAM**
- Remote access services in Windows Server system
4. File services and mass storage management in Windows Server system
- Volumes and file systems in Windows Server system
- Sharing implementation in Windows Server system
- Implementing places for storage in Windows Server system
- Implementing data deduplication
- **iSCSI implementation**
- Implementing file distributed system
5. Virtualisation and Hyper-V containers in Windows Server system
- Hyper-V in Windows Server system
- Configuring virtual machines
- Securing virtualization in Windows Server system
- Containers in Windows Server system
- Discussing Kubernetes
6. High availability in Windows Server system
- High availability in Windows Server system
- Planning the implementation of Failover Cluster
- Creating and configuring Failover Cluster
- stretch cluster type review

- High avialiability and solutions for virtual machine Disaster Recovery
7. Disaster Recovery in Windows Server system
- Hyper-V Replica
- Creating back-ups and restoring infrastructure in Windows Server system
8. Windows Server system security
- Authentications and priviliged access security
- Hardening Windows Server
- JEA in Windows Server system
- Securing and analysing SMB movement
- Managing Windows Server system updates
9. RDS in Windows Server system
- RDS service review
- Configuring session-based desktop
- Review of personal and connected virtual desktops
10. Remote access and Internet services in Windows Server system
- Implementing VPN
- Implementing Always On VPN
- Implementing NPS service
- Implementing Internet server in Windows Server system
11. Monitoring server and performance in Windows Server system
- Discussing tools for monitoring Windows Server system
- The use of performance monitor
- Monitoring event logs to solve problems
12. Updating and migration in Windows Server system
- Migrating AD DS. services.
- Mass storage migration service
- Windows Server system migration tools

Expected preparation of the participant

Knowledge of the basics of ADDS service administration in Windows Server 2012/2016 systems, experienced 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 best practices from security, experienced in practica lwork with Windows client operational systems, such as Windows 8, Windows 8.1 or Windows 10, basic experience with Windows PowerShell application.
An ability to use English language materials.
Pre-training: **MS 10961and MS 20743**
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.

Training Includes

- manual in electronic form available on the platform: https://www.altkomakademia.pl/
- access to Altkom Akademia's student portal

Duration

5 days / 35 hours

Language

- **Training**: English
- **Materials**: English