Identity with Windows Server 2019/2022

Target audience:

- **Administrator**
- **HelpDesk**
- **IT specialist**

Purpose of the training

The following 5 day course teaches IT specialists how to deploy and configure Active Directory Domain Services (AD DS) in distributed environment, how to implement Group Policies, how to make and recover back-ups, as well as how to monitor and solve problems with Active Directory. Moreover, the training is addressed to experts who would like to be acquainted with other Windows Server roles such as: Active Directory Federation Services (AD FS), Active Directory Rights Management Services (AD RMS) and Active Directory Certificate Services (AD CS). What is more, training participants become familiar with the topic of planning and configuring synchronization between Microsoft Azure Active Directory (Azure AD) and local AD DS service.

The training itself and related laboratories concern Windows Server 2022, however, the majority of topics discussed is also available in Windows Server 2016 and 2019. During these practical laboratories participants focus on how to administer Windows Server not only with traditional tools such as PowerShell and Server Manager, but also Windows Admin Center.

Main target audiences of the course are as follows:

– IT specialists, who have certain expertise and experience in AD DS and want to expand their knowledge of identity technologies as well as access in Windows Server.

– Windows Server Administrators, who have fundamental knowledge of administering the system and related technologies, as well as would like to find out more about Active Directory functions.

– IT professionalists with general IT knowledge who would like to gain extra knowledge about Windows Server, especially about troubleshooting, archivization and Disaster Recovery of Active Directory Catalog Service.

– IT specialists, who already have certain experience in working with Windows Server in Active Directory environment, and would like to expand their knowledge with integration with Azure Active Directory

Cloud solution.

It is an equivalent of withdrawn MS 20742 Identity with Windows Server 2016 course.

Benefits of completing the training

Gaining knowledge and practical skills from managing Active Directory Catalog Service and related services in Windows Server (2016, 2019, 2022). It includes:

– Installing and configuring Domain Controller

– Managing objects in AD DS using graphic tools and Windows PowerShell

– Implementing AD DS in complex environments

– Implementing AD DS locations, as well as configuring and managing replication

– Implementing and managing Group Policy Objects (GPO)

– Managing user settings with Group Policy Objects

– Securing AD DS and user accounts

– Implementing and managing CA hierarchy (AD) with AD CS

– Implementing and managing certificates

– Implementing and managing AD FS services

– Implementing and managing AD RMS

– Implementing synchronization between AD DS and Azure AD

– Monitoring, troubleshooting and providing business continuity

Expected Listener Preparation

Minimum level:
Fundamental knowledge of concepts and technologies related to AD DS in Windows Server 2016 or newer, experience in configuring and managing Windows Server 2016 system or newer, experience and understanding fundamental network technologies, experience in configuring and working with Microsoft Hyper-V, as well as fundamentals of server virtualization, knowledge of fundamental security best practices, practial experience in working with Windows operational client systems such as Windows 10 or newer, basic navigation of Windows PowerShell command line interface.

Expected level:
Participants should have solid and practical understanding of network fundamentals, including TCP/IP, Active Directory Domain Services (AD DS), Microsoft Hyper-V virtualization fundamentals, Windows Server security policies. An ability to use PowerShell commands and general English language knowledge are of importance here.

To make your work more convenient and the training more effective we recommend to use additional screen. Lack of additional screen does not exclude participation in the training, however it significantly influences working comfort during classes.

The information and requirements concerning participation in Distance Learning trainings are available at: http://www.altkomakademia.pl/distance-learning/#FAQ

Training Language

- Training: English
- Materials: English

Training Includes

access to Altkom Akademia's student portal
Training method:

- theory
- demonstrations
- shared projects
- individual laboratories

specify theory vs. practice quantity

- 50% theory
- 50% practice

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Training agenda

1. Introduction

- Information on the training
- Training agenda

- Laboratory environment

2. Installing and configurin Domain Controllers
- Discussing AD DS. services
- Discussing AD DS Domain Controllers
- Implementing Domain Controller

3. Managing objects in AD DS
- User Account Management
- Group Management in AD DS
- Computer Object Management in AD DS
- Uses of Windows PowerShell to administer AD DS
- Implementing and managing organizational units

4. Advanced AD DS infrastructure management
- Review of AD DS advanced deployments
- Deploying AD DS distributed environment
- Configuring AD DS trust relations

5. Implementing and administering AD DS locations, and their replication
- Discussing AD DS replication
- Configuring AD DS location
- Configuring and monitoring AD DS service replication

6. Implementing Group Policies
- Introduction to Group Policies
- Implementing and administering GPO
- The scope of group policies and processing group policies
- Troubleshooting the use of Group Policy Objects

7. Managing user settings with Group Policy Objects
- Implementing administration templates
- Configuring folder redirection, installing software and scripts
- Configuring Group Policy preferences

8. Securing Active Directory Domain Services
- Securing Domain Controllers
- Implementing account security
- Implementing inspection
- Configuring service accounts

9. Implementing and managing AD CS
- Deploying CAs
- Administering CAs
- Troubleshooting and CAs maintenance

10. Deploying and managing certificates
- Deploying and managing certificate templates
- Managing deployment, revoking and recovering certificates

- Using certificates in business environment
- Implementing and managing intelligent cards

11. Deploying and managing AD FS services
- Discussing AD FS services
- Requirements and planning AD FS services
- Deploying and configuring AD FS services
- Discussing Web network proxy application server

12. Deploying and managing AD RMS
- Discussing AD RMS
- Deploying and managing AD RMS infrastructure
- Configuring AD RMS content protection

13. Implementing AD DS synchronization with Microsoft Azure AD
- Planning and preparation for catalog synchronization
- Deploying catalog synchronization with Azure AD Connect
- Managing identities with catalog synchronization

14. Monitoring, managing and recovering AD DS
- Monitoring AD DS
- Managing Active Directory database
- Options of creating back-ups and recovering Active Directory for AD DS, as well as other solutions in the areas of identity and access