

Upgrading Your Skills to MCSA: Windows Server 2016



Purpose of the training

This course is for IT professionals who are experienced Windows Server 2012 or Windows Server 2008 system administrators, with real-world experience working in a Windows Server 2008 R2 or Windows Server 2008 enterprise environment. Additionally, students should have obtained the MCSA credential for Windows Server 2008 or Windows Server 2012, or they should have equivalent knowledge.

Additionally, IT professionals who plan to take the Microsoft Certified Solutions Expert (MCSE) exams might be interested in this course, as preparation for the MCSA exams, which are a prerequisite for the MCSE specialties.A



Benefits of completing the training

After completing this course, students will be able to:

- Install and configure Windows Server 2016.
- Describe storage in Windows Server 2016.
- Implement directory services.
- Implement Active Directory Federation Services (AD FS).
- Describe networking.
- Implement Hyper-V.
- Configure advanced networking features.
- Implement software-defined networking.
- Implement remote access.
- Deploy and manage Windows and Hyper-V containers.
- Implement failover clustering.
- Implement failover clustering by using virtual machines



Expected Listener Preparation

Before attending this course, students must have:

- Two or more years of experience with deploying and managing Windows Server 2012 or Windows Server 2008 environments; NS experience with day-to-day Windows Server 2012 or Windows Server 2008 system-administration management and maintenance tasks.
- Experience with Windows networking technologies and implementation.
- Experience with Active Directory technologies and implementation.
- Experience with Windows Server virtualization technologies and implementation.
- Knowledge equivalent to the MCSA credentials of Windows Server 2008 or Windows Server 2012
- 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 Language

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



Training Includes

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



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Training agenda

1. Installing and configuring Windows Server 2016

- Introducing Windows Server 2016
 - Installing Windows Server 2016
 - Configuring Windows Server 2016
 - Preparing for upgrades and migrations
 - Migrating server roles and workloads
 - Windows Server activation models
2. Overview of storage in Windows Server 2016
- Overview of storage in Windows Server 2016
 - Implementing Data Deduplication
 - Configuring iSCSI storage
 - Configuring the Storage Spaces feature in Windows Server 2016
3. Implementing directory services
- Deploying Active Directory domain controllers
 - Implementing service accounts
 - Azure AD
4. Implementing AD FS
- Overview of AD FS
 - Deploying AD FS
 - Implementing AD FS for a single organization
 - Implementing Web Application Proxy
 - Implementing SSO with Microsoft online services
5. Implementing network services
- Overview of networking enhancements
 - Implementing IPAM
 - Managing IP address spaces with IPAM
6. Implementing Hyper-V
- Configuring the Hyper-V role in Windows Server 2016
 - Configuring Hyper-V storage
 - Configuring Hyper-V networking
 - Configuring Hyper-V virtual machines
7. Configuring advanced networking features
- Overview of high-performance networking features
 - Configuring advanced Hyper-V networking features
8. Implementing Software Defined Networking
- Overview of SDN
 - Implementing network virtualization
 - Implementing Network Controller
9. Implementing remote access

- Remote access overview
 - Implementing DirectAccess
 - Implementing VPN
10. Deploying and managing Windows and Hyper-V containers
- Overview of containers in Windows Server 2016
 - Preparing for containers
 - Installing, configuring, and managing containers by using Docker
11. Implementing failover clustering
- Overview of failover clustering
 - Implementing a failover cluster
 - Configuring highly available applications and services on a failover cluster
 - Maintaining a failover cluster
 - Implementing a stretch cluster
12. Implementing failover clustering with Windows Server 2016 Hyper-V
- Overview of the integration of Hyper-V Server 2016 with failover clustering
 - Implementing Hyper-V virtual machines on failover clusters
 - Implementing Windows Server 2016 Hyper-V virtual machine migration
 - Implementing Hyper-V Replica