Networking with Windows Server 2016

Training recipients

This course is intended for existing:
- **IT** professionals who have some:
  - networking knowledge
  - experience
  - are looking for a single course that provides insight into core and advanced networking technologies in Windows Server 2016.

This audience would typically include:
- **Network administrator**s who:
  - are looking to reinforce existing skills
  - learn about new networking technology changes and functionality in Windows Server 2016.
- System or **Infrastructure Administrators** with:
  - general networking knowledge
  - whoo are looking to gain core and advanced networking knowledge and skills on Windows Server 2016.
- IT professionals who are looking to take the MCSA **70-741**: Networking with Windows Server 2016 **exam**.

Benefits

After completing this course, students will be able to:
- Plan and implement an **IPv4 network**.
- Implement **Dynamic Host Configuration Protoco**l (**DHCP**).
  Implement IPv6.
- Implement Domain Name System (DNS).
- Implement and manage IP address management (IPAM).
- Plan for remote access.
- **Implement Direct**Access.

- Implement virtual private networks (VPNs).
- Implement networking for branch offices.
- Configure advanced networking features.
- Implement Software Defined Networking.

Training program

1. Planning and implementing an IPv4 network
   - Planning IPv4 addressing
   - Configuring an **IPv4** host
   - Managing and troubleshooting IPv4 network connectivity
2. Implementing DHCP
   - Overview of the DHCP server role
   - **Deploying** DHCP
   - Managing and troubleshooting DHCP
3. Implementing IPv6
   - Overview of IPv6 addressing
   - Configuring an IPv6 host
   - Implementing IPv6 and IPv4 coexistence
   - Transitioning from IPv4 to IPv6
4. Implementing DNS
   - Implementing DNS servers
   - **Configuring zones** in DNS
   - Configuring name resolution between DNS zones
   - Configuring DNS integration with Active Directory Domain Services (AD DS)
   - Configuring advanced DNS settings
5. Implementing and managing IPAM
   - Overview of IPAM
   - Deploying IPAM
   - Managing IP address spaces by using **IPAM**
6. Remote access in Windows Server 2016
   - Overview of remote access
   - Implementing the Web Application Proxy
7. Implementing DirectAccess
   - Overview of **DirectAccess**
   - Implementing DirectAccess by using the Getting Started Wizard
   - Implementing and managing an advanced DirectAccess infrastructure
8. Implementing VPNs
   - **Planning VPNs**

- Implementing VPNs
9. Implementing networking for branch offices
    - Networking features and considerations for branch offices
    - Implementing Distributed File System (DFS) for branch offices
    - Implementing BranchCache for branch offices
10. Configuring advanced networking features
    - Overview of high performance networking features
    - Configuring advanced **Microsoft Hyper-V** networking features
11. Implementing Software Defined Networking
    - Overview of SDN.
    - Implementing network virtualization
    - Implementing Network Controller

Expected preparation of the participant

In addition to professional experience, students who attend this training should already have the following technical knowledge:

- Experience working with Windows Server 2008 or Windows Server 2012
- Experience working in a Windows Server infrastructure enterprise environment
- Knowledge of the Open Systems Interconnection (OSI) model
- Understanding of core networking infrastructure components and technologies such as cabling, routers, hubs, and switches
- Familiarity with networking topologies and architectures such as local area networks (LANs), wide area networks (WANs) and wireless networking
- Some basic knowledge of the TCP/IP protocol stack, addressing and name resolution
- Experience with and knowledge of Hyper-V and virtualization
- Hands-on experience working with the Windows client operating systems such as Windows 8.1 or Windows 10

Students can meet the prerequisites by attending the following course, or by having knowledge and skills equivalent to:

- MS 10967 Fundamentals of a Windows Server Infrastructure
- 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: <u>https://www.altkomakademia.pl/</u>
- access to Altkom Akademia's student portal

Duration

5 days / 35 hours

Language

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