Training: Microsoft
MS-55343 Networking with Windows Server

Microsoft Partner

TRAINING GOALS:

This 5-day classroom-based course provides the fundamental networking skills required to deploy and support Windows Server in most organizations. It covers IP fundamentals, remote access technologies, and more advanced content including Software Defined Networking.

Although this course and the associated labs are written for Windows Server 2022, the skills taught will also be backwards compatible for Server 2016 and Server 2019.

The course and labs also focus on how to administer Windows Server using not only the traditional tools such as PowerShell and Server manager, but also Windows Admin Center.

Audience profile:

This course is intended for IT professionals who have some networking knowledge and experience and are looking for a single course that provides insight into core and advanced networking technologies in Windows Server. The audience typically includes:

- Network administrators who are looking to reinforce existing skills and learn about new networking technology changes and functionality in Windows Server.

- System or Infrastructure Administrators with general networking knowledge who are looking to gain core and advanced networking knowledge and skills on Windows Server.

At Course Completion:

- Plan and implement an IPv4 network.
- Implement Dynamic Host Configuration Protocol (DHCP).
- Implement IPv6.
- Implement Domain Name System (DNS).
- Implement and manage IP address management (IPAM).
- Plan for remote access.
- Implement DirectAccess.
- Implement virtual private networks (VPNs).
- Implement networking for branch offices.
- Configure advanced networking features.

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- Implement Software Defined Networking.

CONSPECT:

- Module 1: Planning and implementing an IPv4 network
  - Planning IPv4 addressing
  - Configuring an IPv4 host
  - Managing and troubleshooting IPv4 network connectivity
  - Lab 1: Planning an IPv4 network
  - Lab 2: Planning an IPv4 network
  - Lab 3: Implementing and troubleshooting an IPv4 network
  - Lab 4: Implementing and troubleshooting an IPv4 network
- Module 2: Implementing DHCP
  - Overview of the DHCP server role
  - Deploying DHCP
  - Managing and troubleshooting DHCP
  - Lab 1: Implementing DHCP
  - Planning a DHCP server implementation
  - Implementing the DHCP configuration
  - Validating the DHCP implementation
- Module 3: Implementing IPv6
  - Overview of IPv6 addressing
  - Configuring an IPv6 host
  - Implementing IPv6 and IPv4 coexistence
  - Transitioning from IPv4 to IPv6
  - Lab 1: Configuring and evaluating IPv6 transition technologies
- Module 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
  - Lab 1: Planning and implementing name resolution by using DNS
  - Lab 2: Integrating DNS with Active Directory
  - Lab 3: Configuring advanced DNS settings
- Module 5: Implementing and managing IPAM

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- Overview of IPAM
- Deploying IPAM
- Managing IP address spaces by using IPAM
- Lab 1: Implementing IPAM
- Lab 2: Implementing IPAM

- Module 6: Remote access in Windows Server
  - Overview of remote access
  - Implementing the Web Application Proxy
  - Lab 1: Implementing Web Application Proxy
- Module 7: Implementing DirectAccess
  - Overview of DirectAccess
  - Implementing DirectAccess by using the Getting Started Wizard
  - Implementing and managing an advanced DirectAccess infrastructure
  - Lab 1: Implementing DirectAccess by using the Getting Started Wizard
  - Lab 2: Deploying an advanced DirectAccess solution
- Module 8: Implementing VPNs
  - Planning VPNs
  - Implementing VPNs
  - Lab 1: Implementing VPN
- Module 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
  - Lab 1: Implementing DFS for branch offices
  - Lab 2: Implementing BranchCache
- Module 10: Configuring advanced networking features
  - Overview of high performance networking features
  - Configuring advanced Microsoft Hyper-V networking features
  - Lab 1: Configuring advanced Hyper-V networking features
- Module 11: Implementing Software Defined Networking
  - Overview of SDN.
  - Implementing network virtualization
  - Implementing Network Controller
  - Lab 1: Deploying Network Controller
  - Lab 2: Deploying Network Controller

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REQUIREMENTS:

- In addition to professional experience, students who attend this training should already have the following technical knowledge:
- Experience working with Windows Server
- Knowledge of the Open Systems Interconnection (OSI) model
- Understanding of core networking infrastructure components and technologies such as cabling, routers 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 virtualization
- Hands-on experience working with the Windows client operating systems such as Windows 10 or Windows 11

Difficulty level



CERTIFICATE:

Certificate of completing an authorized Microsoft training

TRAINER:

Microsoft Certified Trainer

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