20741: Networking with Windows Server® 2016/2019

Duration: 5 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Course Description

This course provides the fundamental networking skills required to deploy and support Windows Server 2016/2019 in most organizations. It covers IP fundamentals, remote access technologies, and more advanced content including Software Defined Networking.

Target Audience

This course is intended for:

- IT Professionals
- Network Administrators
- System or Infrastructure Administrators.

Prerequisites

To attend this course, candidates must have:

- Experience working with Windows Server 2008 or 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.





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Course Objectives

Upon successful completion of this course, attendees will be able to:

- 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.
- Implement Software Defined Networking.

Course Topics

Module 1: Planning and Implementing an IPv4 Network

- Planning IPv4 Addressing
- Configuring an IPv4 Host
- Managing and Troubleshooting IPv4 Network Connectivity

Module 2: Implementing DHCP

- Overview of the DHCP Server Role
- Deploying DHCP
- Managing and Troubleshooting DHCP

Module 3: Implementing IPv6

- Overview of IPv6 Addressing
- Configuring an IPv6 Host
- Implementing IPv6 and IPv4 Coexistence
- Transitioning from IPv4 to IPv6

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





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Course Topics Continued

Module 5: Implementing and Managing IPAM

- Overview of IPAM
- Deploying IPAM
- Managing IP Address Spaces by Using IPAM

Module 6: Remote Access in Windows Server 2016

- Overview of Remote Access
- Implementing the 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

Module 8: Implementing VPNs

- Planning VPNs
- Implementing VPNs

Module 9: Implementing Networking for Branch Offices

- Implementing a Distributed File System (DFS) for Branch Offices
- Implementing BranchCache for Branch Offices

Module 10: Configuring Advanced Networking Features

- Overview of High-Performance Networking Features
- Configuring Advanced Microsoft Hyper-V Networking Features

Module 11: Implementing Software-Defined Networking (SDN)

- Overview of SDN.
- Implementing Network Virtualization
- Implementing Network Controller

LABS INCLUDED





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