



Information Technology

Networking in Windows Server 2016

Course Introduction

This training course is designed to provide participants with the fundamental networking skills required to deploy and support Windows Server 2016 in most organizations. It covers IP fundamentals, remote access technologies, and more advanced content including software defined networking.

Target Audience

- Cloud Computing Engineer
- Computer Network Specialist
- Computer Support Specialist
- Database Administrator
- Information Technology Analyst
- Information Technology Leadership
- Information Security Specialist
- Software/Application Developer
- Web Developer
- Technology sales consultant

Learning Objectives

- 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 Outline

• Day 01

Module 1: Planning and implementing an IPv4 network

- Planning IPv4 addressing
- Configuring an IPv4 host
- Managing and troubleshooting IPv4 network connectivity
- Lab : Planning an IPv4 network
- Planning the IPv4 address assignments
- Lab : Implementing and troubleshooting an IPv4 network
- Verifying the IPv4 configuration
- Troubleshooting IPv4

Module 2: Implementing DHCP

- Overview of the DHCP server role
- Deploying DHCP
- Managing and troubleshooting DHCP
- Lab : Implementing DHCP
- Planning the DHCP server implementation
- Implementing the DHCP configuration
- Validating the DHCP implementation

• Day 02

Module 3: Implementing IPv6

- Overview of IPv6 addressing
- Configuring an IPv6 host
- Implementing IPv6 and IPv4 coexistence
- Transitioning from IPv4 to IPv6
- Lab : Implementing IPv6

- Reviewing the default IPv6 configuration
- Implementing DHCPv6
- Lab : Configuring and evaluating IPv6 transition technologies
- Configuring network integration by using ISATAP
- Configuring native IPv6 connectivity
- Configuring 6to4 connectivity

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 : Planning and implementing name resolution by using DNS
- Planning DNS name resolution
- Implementing DNS servers and zones
- Lab : Integrating DNS with Active Directory
- Integrating DNS with Active Directory
- Lab : Configuring advanced DNS settings
- Configuring DNS policies
- Validating the DNS implementation
- Troubleshooting DNS

• Day 03

Module 5: Implementing and managing IPAM

- IPAM overview
- Deploying IPAM
- Managing IP address spaces by using IPAM
- Lab : Implementing IPAM
- Installing the IPAM Server feature
- Provisioning the IPAM Server feature
- Managing IP address spaces by using IPAM

Module 6: Remote access in Windows Server 2016

- Remote access overview
- Implementing Web Application Proxy
- Lab : Implementing Web Application Proxy
- Implementing Web Application Proxy
- Validating 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 : Implementing DirectAccess by using the Getting Started Wizard
- Verifying readiness for a DirectAccess deployment
- Configuring DirectAccess
- Validating the DirectAccess deployment
- Lab : Deploying an advanced DirectAccess solution
- Preparing the environment for DirectAccess
- Implementing the advanced DirectAccess infrastructure
- Validating the DirectAccess deployment

• Day 04

Module 8: Implementing VPNs

- Planning VPNs
- Implementing VPNs
- Lab : Implementing a VPN
- Implementing a VPN
- Validating VPN deployment
- Lab : Troubleshooting VPN access
- Troubleshooting VPN access

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 : Implementing DFS for branch offices
- Implementing DFS
- Validating the deployment
- Lab : Implementing BranchCache
- Implementing BranchCache
- Validating the deployment

• Day 05

Module 10: Configuring advanced networking features

- Overview of high performance networking features
- Configuring advanced Hyper-V networking features
- Lab : Configuring advanced Hyper-V networking features

- Creating and using Microsoft Hyper-V virtual switches
- Configuring and using the advanced features of a virtual switch

Module 11: Implementing software defined networking

- Overview of software defined networking
- Implementing network virtualization
- Implementing Network Controller
- Lab : Implementing Network Controller
- Deploying Network Controller
- Configuring network services with Network Controller
- Managing and monitoring with Network Controller

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
June 30, 2025	July 4, 2025	5 days	4250.00 \$	UAE - Dubai
Sept. 22, 2025	Sept. 26, 2025	5 days	4950.00 \$	Singapore - Singapore
Dec. 1, 2025	Dec. 5, 2025	5 days	4250.00 \$	UAE - Dubai