Windows Server 2022 : Networking

Duration : 5 Days

Overview

This five-day course will provide you with the knowledge and skills required to configure the networking features in Windows Server 2022, to automate and consolidate networking processes and resources, easily connect private clouds with public cloud services, and connect users to IT resources and services across physical boundaries.

You will learn how to configure some of the key networking features, such as IP addressing, IP Address Management (IPAM), Domain Name System (DNS), and Dynamic Host Configuration Protocol (DHCP), Remote Access technologies, such as Virtual Private Networks (VPNs). You will learn how to integrate your branch office networks and network infrastructure with Hyper-V and use advanced Hyper-V networking features. You will be introduced to software defined networking.

Target Audience

This course is intended for IT professionals who have some experiencing working with Windows Server, and who are looking for a single five-day course that provides insight into the core and advanced networking technologies in Windows Server 2022. This course will help them update their knowledge and skills related to network services for Windows Server 2016, Windows Server 2019 and Windows Server 2022.

Candidates suitable for this course would be:

Network administrators who are relatively new to Windows Server administration and related technologies, and who want to learn more about the core and advanced networking features in Windows Server 2022. This course is also suitable for understanding Windows Server 2016 and Windows Server 2019.

Prerequisites

Before attending this course, students must have:

- Experience working in a Windows Sever infrastructure enterprise environment.
- Knowledge of the OSI model.
- An understanding of core networking infrastructure components and technologies, such as cabling, routers, hubs, and switches.
- Familiarity with networking topologies and architectures such as LANs, WANs, and wireless networking.
- Experience working Hyper-V and virtualization.
- Additionally, students would benefit from having some previous Windows Server operating system experience, such as experience as a Windows Server systems administrator. An understanding of Windows PowerShell would be advantageous.

Objectives

- Implement an IPv4 network
- Configure and manage DHCP
- Implement name resolution by using DNS
- Integrate AD DS with DNS
- Implement IPv6 and integrate IPv6 and IPv4 networks
- Implement and manage the IP Address Management feature in Windows Server 2022
- Implement and manage remote access in Windows Server 2022
- Implement network services for remote offices
- Implement and manage advanced networking features
- Secure network traffic
- Describe software-defined networking features and capabilities

Course Content

Implementing IPv4 Networking
Explains how to plan and implement an IPv4 addressing scheme to support organisational needs. This module also explains how to use fundamental networking tools and techniques to configure and troubleshoot IPv4-based networks

Implementing DHCP
Explains how to plan and implement DHCP to support the IPv4 infrastructure.

Implementing DNS
Explains how to install, configure, and troubleshoot DNS within the organization's network

DNS Integration and Advanced Settings
Provides an overview of AD DS integration. It explains how to manage and maintain AD-Integrated DNS zones, and how to configure advanced settings such as split-brain DNS. Additionally, it explains how to secure DNS using DNSSEC and apply DNS policies.

Implementing IPv6
Explains how to implement IPv6, and how to integrate IPv6 and IPv4 networks.

IP address management
Explains how to implement and manage the IPAM feature in Windows Server 2022. This module also explains how to use IPAM to manage services such as DHCP and DNS.