

# **Networking with Microsoft Windows Server 2016 (MS-20741)**

**Modality: On Demand**

**Duration: 12 Hours**

***The exam associated with this course will retire on 31st January 2021. However, the course is still valid as training material for learning purposes.***

## **About this Course:**

Networking is the foundation of every organization. Microsoft windows server 2016 provides improved and advanced software-defined networking to ensure an ultimate solution for every organization. Managing networks with a Microsoft windows server helps to run applications on-premises or in the cloud easily and anywhere. The server is highly secure and safe providing real quality of service and performance for better results in the organization.

The course of networking with Microsoft windows server 2016 helps you to understand everything about cloud computing and deploying the resources according to the requirements on the app. Moreover, it also includes the tips and details to learn about the software that how it enables easier and faster management networking for every application. The centralized controlling is an advanced feature by which one can manage, configure and troubleshoot the networking infrastructure. But, leaving everything safe and secure in the cloud.

## **What is the course about?**

Learning and understanding the pro skills of networking to deploy and support windows server 2016. Also, it includes the new advanced software-defined networking, effective techniques and network controlling.

## **Course objectives:**

- The fundamental objective is to learn how to implement the domain name system.
- Configure the new advanced features of networking server.
- Plan and execute your strategies of networking for IPv4.
- Build up unique strategies and skills for remote access.
- Execute VPN'S and monitor the IP address management.
- Implement unified remote access for effective networking with clients.
- Implement the IPv6 and DHCP.
- Ensure everyone follows the networking requirement in every branch of the organization.-
- Also, be able to execute software-defined networking like a pro.

## **Who can take this course?**

The Microsoft server 2016 course is for the IT professional who has or wants experience in the networking field. The course is especially for those want to go ahead in the career of networking. By

a single course, they can have a sharp grasp of the concepts related to handling networking jobs for small and large organizations. Such people can be:

- The network administrations who already have some experience but they want to learn about the new advancement in technology. And, how they can produce more efficient and effective results for their companies or clients.
- System administrators who have a basic idea of networking but they want to pursue their career in it and want to gather a piece of thorough knowledge about it. As it is not only about learning the concepts but also to keep everything safe and secure by using Windows server 2016.
- Professional who are planning or going to take the exam of Networking with Windows Server 2016 can also take this course for a better grip.

## **Prerequisites:**

Anyone enrolling in the course should have the following:

- Have knowledge and a good grasp on the windows server 2008 and 2012 for a better understanding.
- Understand the concept and using open system interconnection.
- Should have previous experience of Windows 10, Windows 8.1 for handling the operating systems.
- Should have a good grasp and knowledge about the fundamental points of networking infrastructure.
- Experience in the infrastructure of windows server.
- The most important thing is to have the skills relevant to the course “Fundamentals of windows server infrastructure”. If not, then first take this course for meeting the requirements of networking with Microsoft windows server 2016.

## **Course Outline:**

### **Module 1: Planning and implementing an IPv4 network**

This module also explains how to use fundamental networking tools and techniques to configure and troubleshoot IPv4-based networks.

#### **Lessons**

- Planning IPv4 addressing
- Configuring an IPv4 host
- Managing and troubleshooting IPv4 network connectivity

### **Module 2: Implementing DHCP**

This module explains how to plan and implement DHCP to support the IPv4 infrastructure.

#### **Lessons**

- Overview of the DHCP server role
- Deploying DHCP
- Managing and troubleshooting DHCP

### **Module 3: Implementing IPv6**

This module explains how to implement IPv6, and how to integrate IPv6 and IPv4 networks.

#### **Lessons**

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

### **Module 4: Implementing DNS**

This module explains how to install, configure, and troubleshoot DNS within the organization's network.

#### **Lessons**

- 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

### **Module 5: Implementing and managing IPAM**

This module explains how to implement and manage the IPAM feature in Windows Server 2016. This module also explains how to use IPAM to manage services such as DHCP and DNS.

#### **Lessons**

- Overview of IPAM
- Deploying IPAM
- Managing IP address spaces by using IPAM

### **Module 6: Remote access in Windows Server 2016**

This module explains how to plan for remote access in Windows Server 2016 and how to implement Web Application Proxy.

#### **Lessons**

- Overview of remote access
- Implementing the Web Application Proxy

## Module 7: Implementing DirectAccess

This module explains how to implement and manage DirectAccess in Windows Server 2016.

### Lessons

- Overview of DirectAccess
- Implementing DirectAccess by using the Getting Started Wizard
- Implementing and managing an advanced DirectAccess infrastructure

## Module 8: Implementing VPNs

This module explains how to implement and manage remote access in Windows Server 2016 by using VPNs.

### Lessons

- Planning VPNs
- Implementing VPNs

## Module 9: Implementing networking for branch offices

This module explains how to implement network services for branch offices.

### Lessons

- Networking features and considerations for branch offices
- Implementing Distributed File System (DFS) for branch offices
- Implementing BranchCache for branch offices

## Module 10: Configuring advanced networking features

This module explains how to implement an advanced networking infrastructure.

### Lessons

- Overview of high performance networking features
- Configuring advanced Microsoft Hyper-V networking features

## Module 11: Implementing Software Defined Networking

This module explains how to implement SDN.

### Lessons

- Overview of SDN

- Implementing network virtualization
- Implementing Network Controller