

## (20741B) – Networking with Windows Server 2016

### OBJECTIVE

This classroom-based course provides 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.

### 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

#### 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 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**

- 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**

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

**Module 11: Implementing software defined networking**

- Overview of SDN
- Implementing network virtualization
- Implementing Network Controller

**PREREQUISITES**

In addition to professional experience, students who attend this training should already have the following technical knowledge:

- Experience working with Windows Server 2008 or Windows Server 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
- Students can meet the prerequisites by attending the following courses, or by having knowledge and skills equivalent to: 10967A: Fundamentals of a Windows Server Infrastructure

## TRAINING APPROACH

This course includes lectures, course notes, exercises and hands-on practice.

## COURSE DURATION

24 Hours (in 3 days)

Time: 9:00am to 6:00pm

Lunch Time: 1:00pm to 2:00pm

## CERTIFICATION COMPLETION

A certificate of completion is provided for all trainees attending the course