



Networking with Windows Server 2016



Practice Labs™

Networking with Windows Server 2016



Lab Outline

The 70-741 Practice Lab will provide you with the necessary platform to gain hands on skills in Microsoft Windows Server 2016.

By completing the lab tasks you will improve your practical skills in implementing DNS and DHCP, implementing IP address management, network connectivity and remote access solutions, implementing core and distributed network solutions and advanced network infrastructure.

These same tasks will help you understand the objectives and competencies required by the Microsoft 70-741 certification exam.

Outcomes

After completing this Practice Lab, students will be able to:

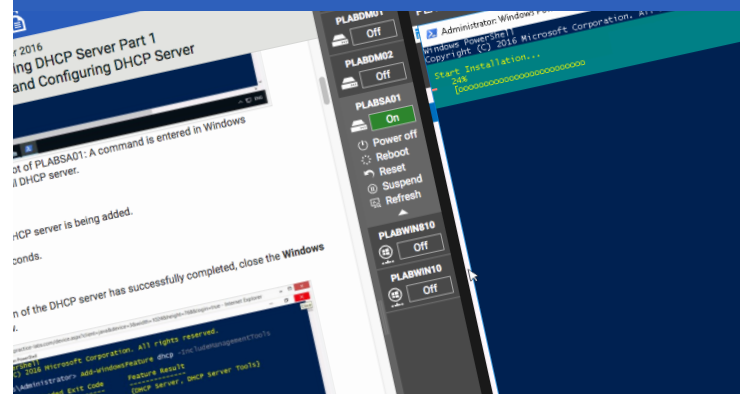
- Creating DNS Forwarders
- Setting up DNS Root Hints
- Create and Configure Delegated DNS Zones
- Create DNS Policies
- Configure DNS Socket Pool
- Manage DNS Cache Locking
- Create and Configure GlobalNames Zone
- Configure DNS Response Rate Limiting
- Enable DNS Logging
- Configure and Customize DNSSEC
- Create Active Directory Integrated Zones
- Configure DNS Zone Types and Resource Records
- Install and Configure DHCP Server
- Manage DHCP Relay Agent
- Administer DHCP Scopes
- Implement Fault Tolerance in DHCP
- Configure DHCPv6 Server
- Managing an ISATAP Router
- Configure Connectivity between IPv4 and IPv6
- Implement 6TO4 Tunnel Address
- Install and Configure PPTP
- Install and Configure L2TP
- Install and Configure SSTP
- Manage Network Policy and VPN Reconnect
- Configure Network Policy Server
- Manage Routing and Network Address Translation
- Implement IPAM Management Server
- Consolidate File Shares with Distributed File System
- Configure BranchCache for Network File Shares
- Manage Hyper-V Virtual Network
- Enable DHCP Guard
- Configure Network Interface Card Teaming
- Enable SR-IOV
- Implement DirectAccess

Course Code
70-741

Skill Level
Intermediate

Released
Apr 2017

Duration
18 hours



Prerequisites

No prior hands-on experience is required to use or complete this Practice Lab. However, it would be beneficial to be familiar with the following concepts:

- An understanding of networking technologies

Who is it For?

The 70-741 certificate is aimed at Windows Network administrators, Windows Server administrators or IT professionals seeking to advance their hands-on skills in advanced networking technologies in Windows Server 2016.

Additional Info

This Practice Lab focuses on the practical aspects of the 70-741 exam objectives. It is therefore advised to refer to your own course materials to gain a deeper understanding of any theoretical aspects of the exam objectives.

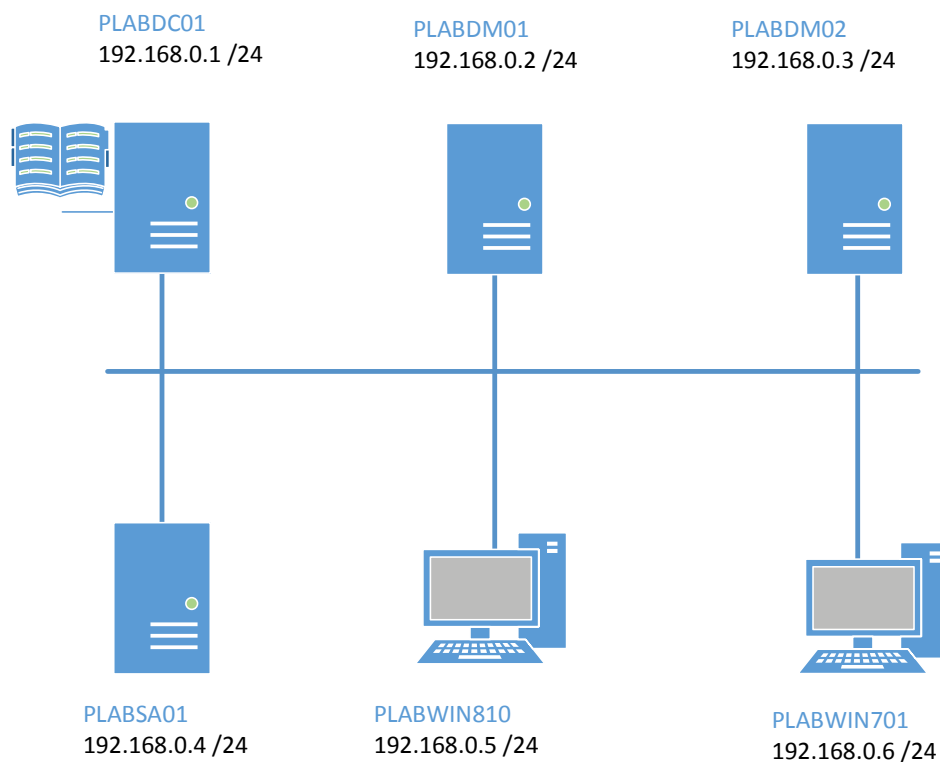
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Lab Topologies

You will also have access to the following topologies:



Networking with Windows Server 2016



Modules and Exercises

Installing and Configuring DNS Servers Part 1

- Introduction
- Exercise 1 - Installing and Configuring DNS Forwarders
- Exercise 2 - Managing DNS Root Hints and Delegated Zones
- Exercise 3 - Configuring DNS Policies
- Summary

Installing and Configuring DNS Servers Part 2

- Introduction
- Exercise 1 - Configuring DNS Socket Pool
- Exercise 2 - Managing DNS cache locking
- Exercise 3 - Creating a GlobalName Zone
- Exercise 4 - Enabling Response Rate Limiting in DNS
- Exercise 5 - Managing DNS Logging
- Summary

Implementing DNSSEC

- Introduction
- Exercise 1 - Preparing DNS Setup for DNSSEC
- Exercise 2 - Configuring DNSSEC
- Exercise 3 - Customizing DNSSEC
- Summary

Managing DNS Zones and Resource Records

- Introduction
- Exercise 1 - Configuring AD Integrated Zones
- Exercise 2 - Creating DNS Zone Types
- Exercise 3 - Managing DNS Resource Records
- Summary

Installing and Configuring DHCP Server Part 1

- Introduction
- Exercise 1 - Installing and Configuring DHCP Server
- Exercise 2 - Configuring DHCP Relay Agent
- Summary

Installing and Configuring DHCP Server Part 2

- Introduction
- Exercise 1 - Install VPN Server
- Exercise 2 - Configure VPN Server System Prerequisites
- Exercise 3 - Configure SSTP VPN
- Exercise 4 - Prepare SSTP VPN Client
- Summary

Implementing DHCPv6 Server

- Introduction
- Exercise 1 - Configuring DHCPv6 Server
- Summary

Managing IPv4 and IPv6 Addresses

- Introduction
- Exercise 1 - Configure the Network to use an ISATAP Router
- Exercise 2 - Setup Network Connectivity between IPv4 and IPv6 devices
- Exercise 3 - Implementing 6TO4 Tunnel Address
- Summary

Implementing VPN Solutions Part 1

- Introduction
- Exercise 1 - Configure the Network to use an ISATAP Router
- Exercise 2 - Setup Network Connectivity between IPv4 and IPv6 devices
- Exercise 3 - Implementing 6TO4 Tunnel Address
- Summary

Implementing VPN Solutions Part 2

- Introduction
- Exercise 1 - Install VPN Server
- Exercise 2 - Configure VPN Server System Prerequisites
- Exercise 3 - Configure SSTP VPN
- Exercise 4 - Prepare SSTP VPN Client
- Summary

Installing and Configuring VPN Reconnect

- Introduction
- Exercise 1 - Prepare System Requirements for VPN Reconnect
- Exercise 2 - Configure Routing Remote Access Server and Network Policy Server
- Exercise 3 - Configure Windows VPN Client
- Summary

Implementing Network Policy Server

- Introduction
- Exercise 1 - Install Network Policy Server
- Exercise 2 - Configure VPN Server and Client
- Exercise 3 - Viewing the NPS Logs
- Summary

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Configuring Routing and Network Address Translation

- Introduction
- Exercise 1 - Prepare System Requirements for RRAS
- Exercise 2 - Install RRAS and Enable LAN Routing
- Exercise 3 - Configure Network Address Translation
- Summary

Install and Configure IPAM

- Introduction
- Exercise 1 - Configure IPAM
- Exercise 2 - Configure IPAM Management Server Discovery
- Summary

Configuring Distributed File System

- Introduction
- Exercise 1 - Install Distributed File System
- Exercise 2 - Configure DFS Namespace and Replication
- Exercise 3 - Verify DFS Replica
- Summary

Implementing BranchCache

- Introduction
- Exercise 1 - Prepare System Requirements for BranchCache
- Exercise 2 - Configure BranchCache
- Summary

Configuring Advanced Hyper-V Networking Features

- Introduction
- Exercise 1 - Managing Hyper-V Virtual Network
- Exercise 2 - Enable DHCP Guard
- Exercise 3 - Configure NIC Teaming
- Exercise 4 - Enable SR-IOV
- Summary

Implementing DirectAccess

- Introduction
- Exercise 1 - Configure Authentication Server
- Exercise 2 - Prepare DirectAccess Server
- Exercise 3 - Configure Network Location Server and IIS
- Exercise 4 - Configure DirectAccess Server
- Exercise 5 - Configure External Devices
- Exercise 6 - Verify DirectAccess Connectivity
- Summary