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# Microsoft Partner

# Lab Outline

The 70-740 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 installing Windows Server 2016, maintaining and monitoring server environments, implementing storage solutions, creating and managing Windows containers, implementing high availability and Hyper-V.

These same tasks will help you understand the objectives and competencies required by the Microsoft 70-740 certification exam.

### Outcomes

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

- Configure Windows Server 2016 (Desktop Experience)
- Install and Configure Windows Server 2016 Standard (Server Core)
- Administer Server Core using Windows PowerShell
- Create and Configure Nano Server using the GUI and Windows Powershell
- Collect OS Information using Microsoft Assessment and Planning Toolkit (MAP)
- Manage Operating System Images using DISM
- Prepare and Install Operating System Image with WDS
- Create and Configure Disk Volumes and Resilient Volumes
- Prepare and Manage Virtual Hard Disks
- Create and Manage Storage Pools and File Share
  Infrastructure
- Configure iSCSI Storage
- Install and Configure Data Deduplication
- Configure Event Log Forwarding
- Manage Virtual Machine Settings, Storage and Networks
- Enable Hyper-V Replica and Configure Nested Virtualization
- Implement Fault Tolerance on Hyper-V and File Servers
- Configure Virtual Machine Movement
- Monitor Server Performance
- Install and Configure Windows Update Services
- Install and Configure Network Load Balancing

ፍ Course Code **70-740**  Intermediate

Released Jan 2017

Duration
 **20 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:

- A basic understanding of networking fundamentals
- Awareness and understanding of security best practices
- An understanding of basic AD DS concepts.
- Experience supporting and configuring
  Windows client operating systems

# Who is it For?

The 70-740 certificate is aimed at Windows Server administrators or IT professionals seeking to advance their hands-on skills in Windows Server administration.

### **Additional Info**

This Practice Lab focuses on the practical aspects of the 70-740 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.

Support 9am-5pm(GMT) : +44 (0) 203 588750 E-mail: sales@practice-labs.com

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### Lab Topologies

You will also have access to the following topologies:



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# **Modules and Exercises**

#### Installing Server Core

Introduction

Exercise 1 - Installing Windows Server 2016 Standard Exercise 2 - Configuring Windows Server 2016 Standard Exercise 3 - Managing Windows Server Core with PowerShell Summary

#### **Installing Windows Server 2016**

Introduction Exercise 1 - Installing Windows Server 2016 Exercise 2 - Configuring Windows Server 2016 Exercise 3 - Managing Server Roles and Features Summary

#### **Configuring and Managing Nano Server**

Introduction

Exercise 1 - Creating Nano Server

- Exercise 2 Completing Post Installation Tasks on Nano Server
- Exercise 3 Managing Nano Server Summary

#### Working with Microsoft Assessment and Planning (MAP) Toolkit

Introduction

Exercise 1 - Collecting Operating System Information with MAP

Summary

#### Maintaining Operating System Images Using DISM

Introduction

Exercise 1 - Add Operating System Patches to Offline Windows Image

Exercise 2 - Add Device Driver to Offline Windows Image Summary

#### Manage Operating System Images with Windows Deployment Services

Introduction

- Exercise 1 Preparing System Requirements for Windows Deployment Services
- Exercise 2 Verify Functionality of Windows Deployment Services

Summary

#### Managing Local Storage and Virtual Hard Disks

Introduction Exercise 1 - Creating Disk Volumes Exercise 2 - Managing Virtual Hard Disks Summary

#### Implementing Storage Pools

Introduction Exercise 1 - Creating and Managing a Storage Pool Summary

#### Managing iSCSI Storage

Introduction Exercise 1 - Configuring iSCSI Storage Exercise 2 - Preparing the iSCSI Initiator for MPIO Summary

#### Implementing Centralized Event Logs

Introduction Exercise 1 - Prepare Event Logs Subscription Prerequisites Exercise 2 - Configure Event Collector Subscription Exercise 3 - View Forwarded Event Logs Summary

#### **Managing Virtual Machine Settings**

Introduction Exercise 1 - Configure Dynamic Memory and Smart Paging Exercise 2 - Configure Guest Integration Services Exercise 3 - Create Generation 2 Virtual Machine Summary

#### Managing Virtual Machine Storage

Introduction Exercise 1- Create VHD and VHDX Exercise 2 - Modify VHDs Exercise 3 - Managing VM Checkpoints Exercise 4 - Working with Fibre Channel Adapter Summary

#### Managing Virtual Machine Networks

Introduction Exercise 1 - Configure Hyper-V Virtual Switches Exercise 2 - Configure Network Isolation Exercise 3 - Optimize Network Performance Summary





#### **Implementing Hyper-V Replica**

Introduction

- Exercise 1 Prepare System Requirements for Hyper-V Replica
- Exercise 2 Managing Hyper-V Replication
- Exercise 3 Understanding Hyper-V Failover

Summary

# Managing Hyper-V Fault Tolerance Using Failover Clustering

Introduction

Exercise 1 - Prepare System Requirements for Failover Clustering

Exercise 2 - Install and Configure Failover Clustering

- Exercise 3 Install Virtual Machine Role on Failover Cluster
- Exercise 4 Manage Failover Clustering

Summary

# Implementing Failover Clustering for Scale-out File Servers

Introduction

- Exercise 1 Preparing System Requirements for Failover Clustering
- Exercise 2 Install and Configure Failover Clustering
- Exercise 3 Install File Server Application to the Failover Cluster
- Exercise 4 Manage Failover Clustering Summary

#### **Managing Virtual Machine Movement**

Introduction

Exercise 1 - Prepare System Requirements for Virtual Machine Move

Exercise 2 - Move Virtual Machines and Hyper-V Storage Exercise 3 - Exporting and Importing Virtual Machines Summary

#### **Managing Server Performance**

Introduction

- Exercise 1 Exploring with Performance Monitor Features
- Exercise 2 Managing Performance Monitor Features
- Exercise 3 Detecting System Bottlenecks

Summary

#### Install and Configure Network Load Balancing

Introduction

Exercise 1 - Installing Network Load Balancing Nodes Exercise 2 - Configuring a New NLB Cluster Exercise 3 - Adding a Secondary Node to an NLB Cluster Exercise 4 - Examining the Working of an NLB Cluster Exercise 5 - Configuring and Validating Port Rules for NLB Summary

#### Implementing Windows Server Update Services

Introduction

Exercise 1 - Installing and Configuring WSUS Exercise 2 - Configuring Computer Groups for WSUS Exercise 3 - Managing GPO for WSUS Clients Summary