20687 - Configuring Windows 8.1

Duration: **5 days**

Overview:

Get expert instruction and hands-on practice administering and configuring Windows 8.1 in this 5-day Microsoft 20687 Course. This course is designed for experienced IT professionals who have knowledge and experience administering Windows PCs and devices in a domain environment with managed access to the Internet.

You will learn the skills you need to administer Windows 8.1 in a Windows Server domain environment and also provide secure, managed access to users from their non-domain joined Windows devices. You will learn how to install and customise Windows 8.1 operating systems and apps, integrate and control access to domains and cloud services, and migrate and synchronise settings across multiple devices. In addition, you will learn how to implement mobile security and customise configurations using Windows management tools including Group Policy and Windows PowerShell cmdlets. You will also learn how to configure user settings and profiles, local and remote network connectivity, Client Hyper-V, virtual apps, and Internet Explorer 11. Finally, you will learn how to optimise security and provide controlled access from Windows 8.1 PCs and devices to specified resources through Workplace Join services and Work Folders.

This course is also designed to prepare certification candidates for Exam 70-687: Configuring Windows 8.1. As part of the learning experience, you will perform hands-on exercises in a virtual lab environment. NOTE: This course is based on Windows 8.1 Enterprise Edition with domain services provided by Windows Server 2012 R2.

Module 1: Windows 8.1 in an Enterprise Environment

Lessons
- Managing Windows 8.1 in an Enterprise Environment
- Overview of Windows 8.1

Module 2: Installing and Deploying Windows 8.1

Lessons
- Preparing to Install and Deploy Windows 8.1
- Installing Windows 8.1
- Customising and Preparing a Windows 8.1 Image for Deployment
- Volume Activation for Windows 8.1

Lab : Installing Windows 8.1
- Planning to Install Windows 8.1
- Performing a Clean Installation of Windows 8.1

Lab : Customising and Capturing a Windows 8.1 Image
- Creating an Answer File and Performing an Unattended Windows 8.1 Installation
- Viewing Install.wim Information and Capturing a Windows 8.1 Image

Lab : Deploying a Windows 8.1 Image
- Performing Offline Servicing and Deploying a Windows 8.1 Image

Module 3: Tools Used for Configuring and Managing Windows 8.1

Lessons
- Tools Used to Perform Local and Remote Management of Windows 8.1
- Using Windows PowerShell to Configure and Manage Windows 8.1
- Using Group Policy to Manage Windows 8.1

Lab : Using Management Tools to Configure Windows 8.1 Settings
- Planning Management of Windows 8.1 Computers
- Managing Windows 8.1 by Using Group Policy
- Implementing Windows PowerShell Remoting

Lab : Migrating User State by Using USMT

Module 4: Managing Profiles and User State in Windows 8.1

Lessons
- Managing User Profiles
- Configuring User State Virtualisation
- Migrating User State and Settings

Lab : Configuring Profiles and User State Virtualisation
- Configuring Roaming User Profiles and Folder Redirection
- Implementing and Configuring UE-V

Lab : Migrating User State by Using USMT
- Creating and Customising USMT XML Files
- Capturing and Restoring User State to a Target Computer

Module 5: Managing Disks and Device Drivers

Lessons
- Managing Disks, Partitions, and Volumes
- Maintaining Disks, Partitions, and Volumes
- Working with Virtual Hard Disks
- Installing and Configuring Device Drivers

Lab : Managing Disks
- Creating Volumes
- Configuring Disk Quotas
- Managing Virtual Hard Disks

Lab : Configuring Device Drivers
- Installing Device Drivers
- Managing Device Drivers

Module 6: Configuring Network Connectivity

Lessons
- Configuring IPv4 Network Connectivity
- Configuring IPv6 Network Connectivity
- Implementing Automatic IP Address Allocation
- Implementing Name Resolution
- Implementing Wireless Network Connectivity

Lab : Configuring a Network Connection
- Enabling Automatic IPv4 Configuration
- Configuring IPv4 Manually

Lab : Resolving Network Connectivity Issues
- Creating a Simulated Network Connectivity Problem
- Resolving a Network Connectivity Problem

Target Audience:

This Microsoft 20687 course is intended for IT professionals who administer and support Windows 8.1 PCs, devices, users, and associated network and security resources. The networks with which these professionals typically work are configured as Windows Server domain-based environments with managed access to the Internet and cloud services. This course is also intended to provide foundation configuration skills for Enterprise Desktop/Device Support Technicians (EDSTs) who provide Tier 2 support to users who run Windows desktops and devices within a Windows domain environment in medium to large enterprise organisations. Students who seek certification in the 70-687 Windows 8.1 Configuring exam will also benefit from this course.

Pre-requisites:

Before attending this Microsoft 20687 course, students must have:

- At least two years of experience in the IT field
- Knowledge of networking fundamentals, including Transmission Control Protocol /Internet Protocol (TCP/IP), User Datagram Protocol (UDP), and Domain Name System (DNS)
- Knowledge of Microsoft Active Directory Domain Services (AD DS) principles and fundamentals of AD DS management
- Understanding of the certificate security and working knowledge of the fundamentals of Active Directory Certificate Services (AD CS)
- Understanding of Windows Server 2008 R2 or Windows Server 2012 fundamentals
- Understanding of Microsoft Windows Client essentials; for example, working knowledge of Windows XP, Windows Vista, Windows 7 and/or Windows 8
- Basic understanding of Windows PowerShell syntax
- Basic awareness of Windows deployment tools (Windows ADK components: Windows PE, Windows SIM, VAMT, ImageX, USMT, and DISM concepts and fundamentals) but no actual prerequisite skills with the specific tools are assumed

Module 7: Configuring File Access and Printers on Windows 8.1 Clients

Lessons
- Managing File Access
- Managing Shared Folders
- Configuring File Compression
- Configuring File Access
- Managing Printers

Lab : Configuring File Access
- Creating a Shared Folder for the Marketing Group
- Configuring File and Folder Compression

Lab : Configuring Printers
- Creating and Sharing a Local Printer

Module 8: Implementing Network Security

Lessons
- Overview of Threats to Network Security
- Configuring Windows Firewall
- Securing Network Traffic by Using IPsec
- Guarding Windows 8.1 Against Malware

Lab : Configuring Inbound and Outbound Firewall Rules
- Creating an Inbound Windows Firewall Rule
- Creating an Outbound Firewall Rule

Lab : Configuring IPsec Rules
- Creating and Configuring IPsec Rules

Lab : Configuring Malware Protection
- Creating and Configuring IPsec Rules
- Configuring Windows Defender

Module 9: Configuring Resource Access for Domain-Joined Devices and Devices That Are Not Domain Members

Lessons
- Configuring Domain Access for Windows 8.1 Devices
- Configuring Resource Access for Devices That Are Not Domain Members
- Configuring Workplace Join
- Configuring Work Folders

Lab : Configuring Resource Access for Devices That Are Not Domain Members
- Implementing Workplace Join
- Configuring Work Folders

Module 10: Securing Windows 8.1 Devices

Lessons
- Authentication and Authorisation in Windows 8.1
- Applying Security Settings by Using Group Policy
- Securing Data with EFS and BitLocker
- Configuring and Testing UAC

Lab : Implementing Local Group Policy Objects
- Restricting the Use of Registry Editing Tools

Lab : Securing Data Using BitLocker
- Protecting Files with BitLocker

Lab : Configuring User Account Control
- Modifying UAC Prompts

Module 11: Configuring Applications for Windows 8.1

Lessons
- Application Deployment Options in Windows 8.1
- Managing Windows Store Apps
- Configuring Internet Explorer Settings
- Configuring Application Restrictions

Lab : Configuring Internet Explorer Security
- Configuring Internet Explorer

Lab : Configuring AppLocker
- Configuring AppLocker Rules
- Testing the AppLocker Rules

Module 12: Optimising and Maintaining Windows 8.1 Computers

Lessons
- Optimising the Performance of Windows 8.1
- Managing the Reliability of Windows 8.1
- Managing Software Updates in Windows 8.1

Lab : Optimising Windows 8.1 Performance
- Creating a Performance Baseline
- Introducing Additional Workload
- Measuring System Responsiveness Under Load

Lab : Maintaining Windows Updates
- Configuring Windows Update

At Course Completion:

After completing this course, students will be able to:

- Describe solutions and features related to managing Windows 8.1 in an enterprise network environment.
- Determine requirements and perform the tasks for installing and deploying Windows 8.1.
- Manage profiles and user state between Windows devices.
- Determine the most appropriate management tools to configure Windows 8.1 settings.
- Configure disks, partitions, volumes, and device drivers in a Windows 8.1 system.
- Configure network connectivity.
- Configure resource connectivity for both domain-joined and non-domain joined PCs and devices.
- Implement Windows 8.1 technologies to secure network connections.
- Configure file, folder, and printer access.
- Implement tools and technologies that can help secure Windows 8.1 PCs and devices.
- Configure and control desktop apps, Windows Store apps, and virtual apps.
- Optimise and maintain Windows 8.1 PCs and devices.
- Configure mobile computer settings and to enable remote access.
- Determine how to recover Windows 8.1 from various failures.
- Describe and configure Client Hyper-V.

Module 13: Configuring Mobile Computing and Remote Access

Lessons
- Configuring Mobile Computers and Device Settings
- Overview of DirectAccess
- Configuring VPN Access
- Configuring Remote Desktop and Remote Assistance

Lab : Configuring a Power Plan
- Creating and Configuring a New Power Plan

Lab : Implementing DirectAccess by Using the Getting Started Wizard
- Configuring DirectAccess
- Validating the DirectAccess Deployment

Lab : Implementing Remote Desktop
- Configuring a Remote Desktop Connection

Module 14: Recovering Windows 8.1

Lessons
- Backing Up and Restoring Files in Windows 8.1
- Recovery Options in Windows 8.1

Lab : Recovering Windows 8.1
- Configuring and Using File History
- Exploring Windows 8.1 Recovery Options
- Introducing a Simulated Problem
- Resolving a Problem=

Module 15: Configuring Client Hyper-V

Lessons
- Overview of Client Hyper-V
- Creating Virtual Machines
- Managing Virtual Hard Disks
- Managing Checkpoints

Lab : Configuring Client Hyper-V
- Installing Client Hyper-V
- Creating a Virtual Switch, a Virtual Hard Disk, and a Virtual Machine