

Course: Ranger Windows 10

Five Days, Instructor-Led

About this Course

This course provides administrators with the knowledge and skills necessary to deploy and manage Windows 10. This course is also designed to provide students with the knowledge and skills required to support and troubleshoot Windows 10 PCs and devices in a Windows Server Domain environment. These skills include understanding of Windows 10 features, how they can be used in an Active Directory environment and how to troubleshoot them.

Audience Profile

The primary audience for this course are IT professionals who administer and support Windows 10 desktops, devices, users, and associated network and security resources.

Pre-requisites

- Networking fundamentals, including Transmission Control Protocol/Internet Protocol (TCP/IP), User Datagram Protocol (UDP), and Domain Name System (DNS)
- Microsoft Active Directory Domain Services (AD DS) principles
- Windows Server 2012 R2 Fundamentals
- Microsoft Windows Client essentials; for example, working knowledge of Windows 7 and/or Windows 8.1
- Understanding of the Public Key Infrastructure (PKI) components
- Microsoft Windows Client essentials; for example, experience with Windows 10 or knowledge from the courses 20697-1 and 20697-2

Course Outline

PART I

Module 1: Managing Desktops and Devices in an Enterprise Environment

This module explains the most current trends and information related to desktop and device management in the enterprise. It also provides an overview on how to extend device management to the cloud.

Lessons

- Managing Windows 10 in the Enterprise
- Managing a Mobile Workforce
- Supporting Devices in the Enterprise

- Extending IT Management and Services to the cloud

Lab: Planning for Windows 10 and Device Management in the Enterprise

- Reading the Scenario
- Answering the Questions

After completing this module, students will be able to:

- Manage Windows 10 in the enterprise
- Manage a mobile workforce
- Support devices in the enterprise
- Extend IT management and services to the cloud

Module 2: Deploying Windows 10 Enterprise Desktops

This module explains the various deployment scenarios of Windows 10 and the considerations to keep in mind while performing these deployments. This module also explains how to deploy Windows 10 by using the Windows Assessment and Deployment Kit (WADK) and the Microsoft Deployment Toolkit (MDT). This module also explains how to maintain Windows 10 by using DISM and Windows Imaging and Configuration Designer (ICD).

Lessons

- Overview of Windows 10 Enterprise Deployment
- Customizing Enterprise Desktop Deployments
- Deploying Windows 10 by Using the Microsoft Deployment Toolkit
- Maintaining a Windows 10 Installation
- Managing Volume License Activation for Windows 10

Lab: Building a Reference Image by Using WADK Tools

- Configuring Custom Windows PE Boot Media
- Modifying a Custom Answer File by Using Windows SIM
- Installing a Reference Computer by Using Sysprep
- Capturing a Reference Computer

Lab: Using MDT to Deploy Windows 10 Desktops

- Creating and Configuring the MDT Deployment Share
- Creating a Task Sequence
- Deploying a Windows 10 Image by Using MDT

Lab: Maintaining a Windows 10 Installation using Windows ICD

- Creating and Configuring a Windows ICD Provisioning Package

After completing this module, students will be able to:

- Describe the deployment options for Windows 10 desktops

- Customize enterprise desktop deployments
- Deploy Windows 10 by using the Microsoft Deployment Toolkit
- Maintain a Windows 10 installation
- Manage volume license activation for Windows 10

Module 3: Managing User Profiles and User State Virtualization

This module explains user states and user state virtualization and explains how to deploy and maintain user experience virtualization (UE-V). This module also explains how to use tools such as ScanState and LoadState to migrate user states.

Lessons

- Managing User Profile and User State
- Implementing User State Virtualization by Using Group Policy
- Configuring User Experience Virtualization
- Managing User State Migration

Lab: Configuring User Profiles and User State Virtualization

- Configuring Roaming User Profiles and Folder Redirection
- Implementing and Configuring UE-V

Lab: Migrating User State by Using USMT

- Creating and Customizing USMT XML Files
- Capturing and Restoring User State to a Target computer

After completing this module, students will be able to:

- Manage user profile and user state
- Implement user state virtualization by using group policy
- Configure UE-V
- Manage user state migration

Module 4: Managing Desktop and Application Settings by Using Group Policy

This Module explains how to manage Group Policy inheritance, administrative templates, and common enterprise desktop settings. This module also explains how to apply policies using targeting and filtering.

Lessons:

- Managing Group Policy Objects
- Configuring enterprise Desktops Using Group Policy
- Overview of Group Policy Preferences

Lab: Configuring Group Policy Objects and Settings

- Managing Windows 10 by Using Group Policy

Lab: Using Group Policy Preferences to Manage Desktop Settings

- Configuring Group Policy Preferences to Apply Drive and Printer Mapping

After completing this module, students will be able to:

- Manage Group Policy Objects
- Configure enterprise desktops by using Group Policy
- Describe Group Policy preferences

Module 5: Managing Windows 10 Sign-In and Identity

This module explains the concept of Identity and the methods to enhance identity security. This module also explains cloud identities and the use of Azure Active Directory Premium in enterprise organizations.

Lessons:

- Overview of Enterprise Identity
- Planning for Cloud Identity Integration

Lab: Integrating a Microsoft Account with a Domain Account

- Signing up for a Trial Microsoft Account
- Connecting a Microsoft Account to a Domain Account

Lab: Joining Windows 10 to Azure Active Directory

- Signing Up for an Azure Active Directory Trial Subscription
- Joining Windows 10 to Azure Active Directory

After completing this module, students will be able to:

- Describe the concept of enterprise identity
- Plan for cloud identity integration

Module 6: Managing Data Access for Windows-based Devices

This module explains how to implement Device Registrations and Work Folders. This module also explains how to configure and share data stored in Microsoft OneDrive.

Lessons:

- Overview of Data Access Solutions
- Implementing Device Registration
- Implement Work Folders
- Managing Online Data Using Cloud-Based Storage Solutions

Lab: Configuring Data Access for Non-Domain Joined Devices

- Implementing Device Registration
- Configuring Work Folders

Lab: Managing Data Access Using OneDrive

- Configuring OneDrive

After completing this module, students will be able to:

- Describe the solutions for accessing data
- Implement Device Registration
- Implement Work Folders
- Manage online data by using cloud-based storage solutions

Module 7: Managing Remote Access Solutions

This module explains how to configure a Virtual Private Network (VPN) and DirectAccess in Windows 10. This module also explains how to publish applications in Microsoft Azure RemoteApp.

Lessons:

- Overview of Remote Access Solutions
- Configuring VPN Access to Remote Networks
- Using DirectAccess with Windows 10
- Supporting RemoteApp

Lab: Implementing Direct Access

- Configuring the DirectAccess Server
- Configuring the DirectAccess Clients
- Validating Remote Connectivity

Lab: Configuring Azure RemoteApp

- Creating a RemoteApp Collection
- Publishing an Application Using Azure RemoteApp
- Validating Remote Connectivity

After completing this module, students will be able to:

- Describe the types of remote access solutions
- Configuring VPN access to remote networks
- Use DirectAccess with Windows 10
- Support RemoteApp

PART II

Module 1: Implementing a Troubleshooting Methodology

This module explains how to describe the processes involved in establishing and using a troubleshooting methodology. Module also covers various Windows 10 fundamentals, high level architecture and often used troubleshooting tools.

Lessons:

- Overview of Windows 10
- Introduction to the EDST Job Role
- Troubleshooting Tools

Lab: Using Troubleshooting Tools

- Implementing a Troubleshooting Methodology
- Using Troubleshooting Tools

Lab: Implementing a Troubleshooting Methodology

- Implementing a Troubleshooting Methodology
- Using Troubleshooting Tools

After completing this module, students will be able to:

- Describe Windows 10
- Explain the Enterprise Desktop/Device Support Technician (EDST) job role
- Identify the key stages in a troubleshooting methodology
- List the windows 10 troubleshooting tools

Module 2: Troubleshooting Startup Issues

This module describes how to identify and troubleshoot issues that affect the Windows 10 Operating System's ability to start, and how to identify problematic services that run on the operating system. It also describes how to use the Windows 10 advanced troubleshooting tools, collectively known as the Windows Recovery Environment (Windows RE).

Lessons:

- Overview of the Windows 10 Startup Recovery Environment
- Troubleshooting Startup Settings
- Troubleshooting Operating System Services Issues
- Recovering BitLocker-Protected Drives

Lab: Troubleshooting Startup Issues

- Resolving a Startup Problem (1)
- Resolving a Startup Problem (2)
- Recovering a BitLocker-Encrypted Drive
- Creating a New BitLocker Password

Lab: Recovering BitLocker-Encrypted Drives

- Resolving a Startup Problem (1)
- Resolving a Startup Problem (2)
- Recovering a BitLocker-Encrypted Drive
- Creating a New BitLocker Password

After completing this module, students will be able to:

- Describe the Windows 10 startup architecture
- Optimize and troubleshoot startup settings

- Troubleshoot Windows 10 operating system services
- Recover drives encrypted with Windows BitLocker Drive Encryption

Module 3: Troubleshooting Hardware and Device Drivers

This module explains how to support users that utilize a multitude of devices drivers, and how you can troubleshoot hardware devices and device drivers. The module also covers how to monitor the reliability of a Windows 10 device and troubleshoot any issue that might occur.

Lessons

- Troubleshooting Device Driver Failures
- Overview of Hardware Troubleshooting
- Troubleshooting Physical Failures
- Monitoring Reliability
- Configuring the Registry

Lab: Troubleshooting Device Driver Issues

- Troubleshooting a Missing Device Driver
- Resolving Hardware Problems
- Resolving Device Driver Problem
- Configuring Group Policy Settings to Control Device Installation
- Diagnosing Memory and Troubleshooting Failed Disk Redundancy
- Accessing a Volume from a Failed Computer

Lab: Troubleshooting Hardware Issues

- Troubleshooting a Missing Device Driver
- Resolving Hardware Problems
- Resolving Device Driver Problem
- Configuring Group Policy Settings to Control Device Installation
- Diagnosing Memory and Troubleshooting Failed Disk Redundancy
- Accessing a Volume from a Failed Computer

After completing this module, students will be able to:

- Troubleshoot hardware device drivers.
- Describe the process of troubleshooting hardware.
- Troubleshoot physical hardware failures.

- Monitor the reliability of Windows 10 devices.
- Configure the Windows 10 registry.

Module 4: Troubleshooting Remote Computers

This module explores three ways in which you can remotely connect to and manage remote computers: Remote Desktop, Windows Remote Assistance, and Windows PowerShell remoting.

Lessons

- Using Remote Desktop
- Using Remote Assistance
- Remoting with Windows PowerShell

Lab : Troubleshooting Remote Computer by using Remote Desktop and Remote Assistance

- Using Remote Desktop
- Using Remote Assistance
- Using Windows PowerShell Remoting

Lab : Troubleshooting Remote Computer by Using Windows PowerShell

- Using Remote Desktop
- Using Remote Assistance
- Using Windows PowerShell Remoting

After completing this module, students will be able to:

- Use Remote Desktop to manage remote computers.
- Use Windows Remote Assistance to manage remote computers.
- Use Windows PowerShell remoting to manage remote computers.

Module 5: Resolving Network Connectivity Issues

This module explains the tools that you can use to set up and troubleshoot both wired and wireless network connections more efficiently. This module also explains how to support your organization's network infrastructure, and how to use these tools to configure and troubleshoot network connections.

Lessons:

- Determining Network Settings

- Troubleshooting Network Connectivity
- Troubleshooting Name Resolution

Lab : Resolving Network Connectivity Issues

- Resolving a Network Problem (1)
- Resolving a Network Problem (2)
- Troubleshooting a Wireless Network

After completing this module, students will be able to:

- Determine network settings in Windows 10.
- Troubleshoot issues with network connectivity.
- Troubleshoot issues with name resolution.

Module 6: Troubleshooting User Settings

In this module, you will examine issues that can occur when users sign in, and you will also learn about how to troubleshoot the application of user settings.

Lessons

- Troubleshooting Sign In Issues
- Troubleshooting the Application of User Settings

Lab : Troubleshooting Sign in Problems

- Resolving Sign in Problem (1)
- Resolving Sign in Problem (2)
- Resolving Folder Redirection Issue

Lab : Troubleshooting the Application of User Settings

- Resolving Sign in Problem (1)
- Resolving Sign in Problem (2)
- Resolving Folder Redirection Issue

After completing this module, students will be able to:

- Troubleshoot user sign-in issues.
- Troubleshoot the correct application of user settings.

Module 7: Troubleshooting Resource Access within a Domain

This module explains how to resolve problems of resource access from computers that are domain members. It explains how to troubleshoot file

permission issues, encrypting file system (EFS) and printer access issues.

Lessons:

- Troubleshooting File Permissions Issues
- Recovering Files Encrypted by EFS
- Troubleshooting Printer Access Issues

Lab : Troubleshooting File Access Issues

- Resolving a File Access Issue (1)
- Resolving a File Access Issue (2)
- Resolving a File-Access Issue (3)
- Encrypting and Recovering Access to Encrypted Files
- Resolving a Printer Access Issue (1)
- Resolving a Printer Access Issue (2)

Lab : Troubleshooting Printer Issues

- Resolving a File Access Issue (1)
- Resolving a File Access Issue (2)
- Resolving a File-Access Issue (3)
- Encrypting and Recovering Access to Encrypted Files
- Resolving a Printer Access Issue (1)
- Resolving a Printer Access Issue (2)

Lab : Troubleshooting Access to Encrypted Files

- Resolving a File Access Issue (1)
- Resolving a File Access Issue (2)
- Resolving a File-Access Issue (3)
- Encrypting and Recovering Access to Encrypted Files
- Resolving a Printer Access Issue (1)
- Resolving a Printer Access Issue (2)

After completing this module, students will be able to:

- Troubleshoot issues with file permissions.
- Troubleshoot issues with file access.
- Recover files encrypted by Encrypting File System (EFS).
- Troubleshoot access to encrypted files.
- Troubleshoot issues with accessing printers.

Module 8: Troubleshooting Resource Access for Non Domain Member Clients

This module explains how to enable students to resolve problems of resource access from computers that are not domain-joined.

Lessons

- Configuring and Troubleshooting Device Registration
- Configuring and Troubleshooting Work Folders
- Configuring and Troubleshooting OneDrive Access

Lab : Troubleshooting Resource Access for Clients that are not Domain Members

- Troubleshooting Device Registration
- Troubleshooting Work Folders 1
- Troubleshooting Work Folders 2
- Troubleshooting OneDrive for Business

After completing this module, students will be able to:

- Configure the Device Registration feature.
- Configure and troubleshoot the Work Folders feature.
- Configure and troubleshoot access to Microsoft OneDrive.

Course Inclusions:

- Microsoft Official Curriculum (MOC) and/or Wizards Learning Courseware (WLC)
- Microsoft Certified Trainer (MCT)
- Lunch, AM and PM Snacks
- Certificate of Achievement
- Course Notes