



## **M10982 Supporting & Troubleshooting Windows 10**

### **Duration 5 Days**

This course is 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.

### **Target Audience**

The primary audience for this course is the Enterprise Desktop Support Technician (EDST), who provides Tier 2 support to users running Windows 10 personal computers (PCs) and devices in medium to large enterprise organizations, within a Windows domain environment. EDSTs focus on a broad range of technical issues for Windows operating systems (OSs), devices, cloud services, applications, networking, and hardware support. In the overarching scenario, if an Enterprise offers the service, the EDST is asked to support it.

The key responsibilities include resolving technical issues pertaining to Windows 10 installation and migration, activation, performance, profiles, settings; and device synchronization. Some other key responsibilities include local and remote network access; access to applications, access to data and printers; authentication, Endpoint security and policy; OS and data recovery.

### **After completing this course, students will be able to:**

- Describe the processes involved in planning and using a troubleshooting methodology for Windows 10.
- Troubleshoot start up issues and operating system services on a Windows 10 PC.
- Resolve issues related to hardware devices and device drivers.
- Troubleshoot Windows 10 PCs remotely.
- Troubleshoot issues related to network connectivity.
- Troubleshoot client configuration failures and GPO application issues.
- Troubleshoot issues related to user settings.
- Troubleshoot remote connectivity issues.
- Resolve issues related to accessing resources from computers that are domain-joined.
- Resolve issues related to accessing resources from computers that are not domain-joined.
- Troubleshoot issues related to application installation and operation.
- Recover a PC running Windows 10.

### **Course Outline**

#### **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.

Lesson

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

Lab : Implementing a Troubleshooting Methodology

- Implementing a Troubleshooting Methodology

Lab : Using Troubleshooting Tools for Windows 10

- Using Troubleshooting Tools

## **Module 2: Troubleshooting Startup Issues**

This module explains how to enable students to troubleshoot startup issues and OS services on a computer with Windows 10 installed. This module introduces potential problems that can cause startup issues in Windows 10. It also provides an overview of the Windows startup process, including the Windows Recovery Environment (Windows RE) and Boot Configuration Data (BCD).

Lesson

- 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)
- Resolving a Startup Problem (3)

Lab : Recovering BitLocker-Encrypted Drives

- Recovering a BitLocker-Encrypted Drive
- Creating a New BitLocker Password

## **Module 3: Troubleshooting Hardware and Device Drivers**

This module explains how to enable students to resolve issues related to device drivers and hardware devices.

Lesson

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

Lab : Troubleshooting Device Driver Issues

- Resolving Hardware Issues

- Configuring Group Policy Settings to Control Device Installation
- Adding a Missing Device Driver to a Driver Store
- Reverting a Problematic Device Driver

Lab : Troubleshooting Hardware Issues

- Diagnosing Memory
- SynTroubleshooting and Repairing Failed Disk Redundancy Synchronizing Settings between Devices
- Accessing Data on a Foreign Volume

#### **Module 4: Troubleshooting Remote Computers**

This module covers how to troubleshoot a remote Windows 10 computer by using Remote Desktop (RD), Windows Remote Assistance and Windows PowerShell remoting.

Lesson

- 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

Lab : Troubleshooting Remote Computer by using Windows PowerShell

- Using Windows PowerShell Remoting

#### **Module 5: Resolving Network Connectivity Issues**

This module explains how to identify network settings and troubleshoot issues related to network connectivity in wired and wireless networks, IPv4 and IPv6 connectivity, and name resolution.

Lesson

- Determining Network Settings
- Troubleshooting Network Connectivity Issues
- Troubleshooting Name Resolution

Lab : Resolving Network Connectivity Issues

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

Lab : Resolving Name Resolution Issues

- Resolving a Network Problem (1)
- Resolving a Network Problem (2)
- Resolving a Network Problem (3)

## Module 6: Troubleshooting Group Policy

This module provides an overview of the Group Policy application and describes how to resolve issues in client configuration GPO application.

Lesson

- Overview of Group Policy Application
- Resolving Client Configuration Failures and GPO Application Issues

Lab : Troubleshooting Group Policy Application Issues

- Resolving Group Policy Application (1)
- Resolving Group Policy Application (2)

Lab : Resolving Group Policy Issues

- Resolving Group Policy Application (1)
- Resolving Group Policy Application (2)

Lab : Installing and Sharing a Printer

- Installing and Sharing a Printer

## Module 7: Troubleshooting User Settings

This module explains the cause of sign in problems in order to detect the issues and how to troubleshoot them.

- Lesson
- 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 Sign in Problem (3)

Lab : Troubleshooting the Application of User Settings

- Resolving Folder Redirection Problem
- Resolving Roaming User Profile Problem

## Module 8: Troubleshooting Remote Connectivity

This module explains how to troubleshoot remote connectivity issues when a virtual private network (VPN) or DirectAccess is used.

Lesson

- Troubleshooting VPN Connectivity Issues
- Troubleshooting DirectAccess

Lab : Troubleshooting VPN Connectivity

- Troubleshooting VPN Connectivity (1)
- Troubleshooting VPN Connectivity (2)

Lab : Configuring and Troubleshooting DirectAccess

- Configuring and Verifying DirectAccess Client-Side Settings
- Troubleshooting DirectAccess

### **Module 9: 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.

Lesson

- 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)

Lab : Troubleshooting Access to Encrypted Files

- Recovering Encrypted File

Lab : Troubleshooting Printer Access Issues

- Resolving a Printer Access Issue (1)
- Resolving a Printer Access Issue (2)

### **Module 10: 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.

Lesson

- 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
- Troubleshooting OneDrive for Business

### **Module 11: Troubleshooting Applications**

This module explains how to troubleshoot application installation issues and problems in the desktop and Windows Store apps.

#### Lesson

- Troubleshooting Desktop App Installation Issues
- Troubleshooting Desktop Apps
- Managing Windows Store Apps
- Troubleshooting Access to Company Web Applications

#### Lab : Troubleshooting Desktop Apps

- Troubleshooting AppLocker Policy Application
- Troubleshooting Application Compatibility issue

#### Lab : Troubleshooting Access to Company Web Applications

- Troubleshooting Internet Explorer Issue
- Troubleshooting Microsoft Edge Issue

### **Module 12: Maintaining Windows 10**

This module explains how to troubleshoot activation issues and performance issues in Windows 10. It also explains how to apply and troubleshoot Windows updates. Lesson

- Managing and Troubleshooting Windows Activation
- Monitoring and Troubleshooting Performance
- Applying Applications and Windows Updates

#### Lab : Monitoring and Troubleshooting Performance

- Troubleshooting a Performance Problem (1)
- Troubleshooting a Performance Problem (2)
- Troubleshooting a Performance Problem (3)

### **Module 13: Recovering Data and Operating System**

This module explains how to use file recovery and troubleshoot deleted files. It also covers how to recover a Windows 10 computer.

#### Lesson

- File Recovery in Windows 10
- Recovering an OS

#### Lab : Recovering Data

- Recovering Data from Azure Backup
- Recovering Deleted File by Using File History
- Lab : Provisioning Computer to Comply with Company Standards
- Provision Computer to Comply with Company Standards