Supporting and Troubleshooting Windows 10 (10982)

Duration: 5 Days

US Price: $895

Delivery Option: Attend via MOC On-Demand

Description

This is a Microsoft Official Course (MOC) and includes Microsoft courseware and hands-on labs. 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.

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.

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

Prerequisites

Before attending this course, students must have:

- 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
- Understanding of the Public Key Infrastructure (PKI) components

- Windows Server 2016 fundamentals.Microsoft Windows Client essentials, for example experience with Windows 10

About MOC On-Demand

Microsoft Official Courses On-Demand (MOC On-Demand) uses a combination of streaming video, text, lab exercises and assessment checks throughout the course. MOC On-Demand courses are available for 90 days and recommend the following system requirements:

- Browser: Current version of Internet Explorer, Microsoft Edge, Google Chrome or Firefox
- Internet: Broadband Internet connection of over 4Mbps
- Screen Resolution: 1280 x 1024 or higher

Course Overview

Module 1: Implementing a Troubleshooting Methodology

This module explains the processes of establishing and using a troubleshooting methodology in Windows 10. This module also covers various Windows 10 fundamentals, high-level architecture, and often-used troubleshooting tools. It also explains the role of an EDST (Enterprise Desktop Support Technician) in a Windows 10 environment.

Lessons

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

Labs

- Implementing a Troubleshooting Methodology
- Using Troubleshooting Tools

After completing this module, students will be able to:

- Describe the Windows 10 operating system, devices it supports, and the Windows 10 architecture
- Understand the Enterprise Desktop Support Technician (EDST) role in a Windows 10 environment
- Understand the troubleshooting methodology for Windows 10
- Describe Windows 10 troubleshooting tools
- Use 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 Service Issues
- Recovering BitLocker-Protected Drives

Labs

- Resolving a Startup Issue
- 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 that run Windows 10. It describes how an operating system uses device 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 issues that might occur.

Lessons

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

Labs

- Troubleshooting a Missing Device Driver

Resolving Hardware Problems
- Resolving Device Driver Problems
- 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

The focus of this module is on using tools that are designed specifically to facilitate remote management connections. 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

Labs

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

Module 5: Resolving Issues with Network Connectivity

This module describes 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 configure and troubleshoot network connections.

Lessons

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

Labs

- Resolving a Network Problem
- 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 Group Policy

This module provides an overview of Group Policy and describes how to apply GPOs to computers. It also explains how to resolve configuration problems and issues with applying GPOs.

Lessons

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

Lab

- Resolving Group Policy Applications

After completing this module, students will be able to:

- Describe how you apply GPOs to computers
- Resolve client-configuration failures and GPO application issues

Module 7: Troubleshooting User Settings

In this module, you will examine issues that can occur when users sign in. You will study the methods that you can use to identify the causes of sign-in issues, and learn how to troubleshoot them. You will also learn how to troubleshoot the application of user settings.

Lessons

- Troubleshooting Sign-In Issues

- Troubleshooting the Application of User Settings

Labs : Troubleshooting Sign-In Issues

- Resolving Sign-In Issues
- Resolving a 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 8: Troubleshooting Remote Connectivity

This module explains the virtual private network (VPN) and DirectAccess technologies, and the common problems with their implementation and usage. The module also provides several possible mitigations for these problems.

Lessons

- Troubleshooting Issues with VPN Connectivity
- Troubleshooting DirectAccess

Labs

- Troubleshoot VPN Connectivity Issues
- Prepare the DirectAccess Implementation
- Configuring and Verifying Client-Side Settings for DirectAccess
- Troubleshooting DirectAccess

After completing this module, students will be able to:

- Troubleshoot issues with VPN connectivity
- Configure and troubleshoot DirectAccess

Module 9: Troubleshooting Resource Access within a Domain

This module explains how to resolve problems related to resource access from computers that are domain members. It explains how to troubleshoot file permission issues, encrypting file system (EFS) issues, and printer access issues.

Lessons

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

Labs

- Resolving a File-Access Issues
- Encrypting and Recovering Access to Encrypted Files
- Resolving a Printer Issues

After completing this module, students will be able to:

- Troubleshoot issues with file permissions
- Recover files encrypted by EFS
- Troubleshoot issues with accessing printers

Module 10: Troubleshooting Resource Access for Clients that are Not Domain Members

This module explains how to resolve problems related to resource access from computers that are not domain members. You will learn how to configure and troubleshoot the Work Folders feature, which enables users to access organizational data securely from their personal devices. You will also learn how to configure and troubleshoot access to Microsoft OneDrive.

Lessons

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

Labs

- Troubleshooting Work Folders
- Troubleshooting OneDrive for Business

After completing this module, students will be able to:

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

Module 11: Troubleshooting Applications

Windows 10 supports the installation and use of two types of applications: desktop apps and Universal Windows apps. This module examines these two types of applications, and the issues including application compatibility issues that affect a user's ability to install and run them. This module also covers how users can resolve web browser or related issues, specifically issues associated with both Microsoft Internet Explorer and Microsoft Edge.

Lessons

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

Labs

- Troubleshooting AppLocker Policy Applications
- Troubleshooting Application Compatibility Issues
- Troubleshooting Internet Explorer Issues
- Troubleshooting Microsoft Edge Issues

After completing this module, students will be able to:

- Troubleshoot desktop app installation issues
- Troubleshoot desktop apps
- Manage Universal Windows apps
- Troubleshoot web browsers

Module 12: Maintaining Windows 10

Once the Windows 10 operating system is activated on your computers, you must establish procedures to monitor their performance and ensure that they remain up-to-date with the latest operating system updates and security fixes. This module discusses how to provide for the ongoing maintenance of Windows 10 operating systems.

Lessons

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

Labs

- Resolve a Performance-Related Issue
- Resolve a CPU-Related Performance Issue
- Resolve a Disk-Related Performance Issue

After completing this module, students will be able to:

- Manage and troubleshoot volume activation in Windows operating systems
- Monitor and troubleshoot Windows 10 performance
- Update applications and Windows 10

Module 13: Recovering Data and Operating Systems

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

Lessons

- File Recovery in Windows 10
- Recovering an Operating System

Labs

- Resolving Issues with Previous Versions
- Provisioning a Computer to Comply with Company Standards

After completing this module, students will be able to:

- Recover files in Windows 10 by configuring and using file recovery features
- Recover a computer that is running Windows 10