MS10982 Supporting and Troubleshooting Windows 10

Duration: 5 Day(s)

Course Fee: $2,895.00* Per Student.

   *Microsoft SA Voucher Eligible. KnowledgeWave Learning Site & Government/Education Discounts Available.

Overview

About this course
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.

Audience profile
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.

At course completion

After completing this course, students will be able to:

- Describe the processes involved in planning and using a troubleshooting methodology for Windows 10.
- Troubleshoot startup issues and operating system services on a Windows 10 PC.
- Resolve issues that pertain to hardware devices and device drivers.
- Troubleshoot Windows 10 devices remotely.
- Troubleshoot issues that pertain to network connectivity.

- Troubleshoot client configuration failures and issues with application of Group Policy Objects.
- Troubleshoot issues related to user settings.
- Troubleshoot remote connectivity issues.
- Resolve issues related to accessing resources from devices that are domain-joined.
- Resolve issues related to accessing resources from devices that are not domain-joined.
- Troubleshoot issues that pertain to application installation and operation.
- Maintain a device running Windows 10.
- Recover a device 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.

Lessons

- 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

- Using Troubleshooting Tools

After completing this module, students will be able to:

- Describe Windows 10.
- Understand the EDST job role.
- Describe troubleshooting steps.
- Describe 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 Issue (1)
- Resolving a Startup Issue (2)

Lab: Recovering BitLocker-Encrypted Drives

- 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 will also describe 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 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

Lab: Troubleshooting Hardware Issues

- 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

Lab: Troubleshooting Remote Computer by Using Windows PowerShell

- 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.
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Module 5: Resolving Issues with 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.
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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.

Lessons

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

Lab: Troubleshooting Issues with Group Policy Application

- Resolving Group Policy Application (1)
- Resolving Group Policy Application (2)
- Resolving Group Policy Application (3)

Lab: Resolving Issues with Group Policy

- Resolving Group Policy Application (1)

After completing this module, students will be able to:
- Understand Group Policy application.
- Troubleshoot Group Policy application.
- Resolve client configuration failures and GPO application.

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Module 7: 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 Issue 1
- Resolving Sign-In Issue 2

Lab: Troubleshooting the Application of User Settings

- 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 8: Troubleshooting Remote Connectivity

This module explains these technologies, describes common problems with their implementation and usage, and provides several possible mitigations for those problems.

Lessons

- Troubleshooting VPN Connectivity Issues
- Troubleshooting DirectAccess

Lab: Troubleshooting VPN Connectivity

- Troubleshoot VPN Connectivity Issue 1
- Troubleshoot VPN Connectivity Issue 2

Lab: Configuring and Troubleshooting DirectAccess

- Prepare the DirectAccess Implementation
- Configuring and Verifying Client-Side Settings for DirectAccess
- Troubleshooting DirectAccess

After completing this module, students will be able to:

- Troubleshoot virtual private network (VPN) connectivity issues.
- Configure and troubleshoot DirectAccess.

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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.

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)

Lab: Troubleshooting Access to Encrypted Files

- Encrypting and Recovering Access to Encrypted Files

Lab: Troubleshooting Printer Issues

- 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 10: Troubleshooting Resource Access for Clients That Are Not Domain Members

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.

Module 11: Troubleshooting Applications
This module examines the issues, including application compatibility issues that affect a user's ability to install and run these two types of applications. This module also covers how users can resolve web browser related issues, specifically issues associated with both Internet Explorer and Microsoft Edge.

Lessons

- 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 Issues

Lab: Troubleshooting Access to Company Web Applications

- 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
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

Lab: Monitoring and Troubleshooting Performance

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

Lessons

- File Recovery in Windows 10
- Recovering an Operating System

Lab: Recovering Data

- Resolving Issues with Previous Versions

Lab: Provisioning Computer to Comply with Company Standards

- Provision 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.

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