Troubleshooting and Supporting Windows 7 in the Enterprise

Course number: 6293A
Course lenght: 3 days

Course Outline

Module 1: Resolving Startup Issues

This module describes how to identify and troubleshoot issues that affect the operating system's ability to start, and how to identify problematic services that are running on the operating system. It also describes how to use the Microsoft Windows 7 operating system advanced troubleshooting tools, collectively known as the Microsoft Windows Recovery Environment (Windows RE).

Lessons

- Lesson 1: Overview of the Windows 7 Recovery Environment
- Lesson 2: Configuring and Troubleshooting Startup Settings
- Lesson 3: Troubleshooting Issues with Operating System Services

Lab : Resolving Startup Issues

- Exercise 1: Resolving a Startup Problem (1)
- Exercise 2: Resolving a Startup Problem (2)

After completing this module, students will be able to:

- o Use Windows 7 recovery tools to troubleshoot startup problems.
- o Configure and troubleshoot startup settings.
- o Troubleshoot operating system services.

Module 2: Using Group Policy to Centralize Configuration

This module explains how Group Policy works and how to identify when an organization is not applying Group Policy objects (GPOs) properly.

Lessons

- Lesson 1: Overview of Group Policy Application
- Lesson 2: Resolving Client Configuration Failures and GPO Application Issues

Lab : Using Group Policy to Centralize Configuration

- Exercise 1: Resolve Group Policy Application No. 1
- Exercise 2: Resolve Group Policy Application No. 2

After completing this module, students will be able to:

- Describe Group Policy application.
- Troubleshoot client configuration failures and GPO application issues.

Module 3: Resolving Issues for Hardware Devices and Device Drivers

This module explains how to troubleshoot hardware failures, and details physical hardware failures and those of drivers for hardware devices.Lessons

- Lesson 1: Overview of Hardware Troubleshooting
- Lesson 2: Troubleshooting Physical Failures
- Lesson 3: Troubleshooting Failures of Device Drivers

Lab : Resolving Issues for Hardware Devices and Device Drivers

- Exercise 1: Resolving Hardware Issues
- Exercise 2: Configuring Group Policy to Control Device Installation
- Exercise 3: Checking for Unsigned Drivers

After completing this module, students will be able to:

- o Identify basic issues with hardware.
- o Determine problems relating to hardware failures.
- o Determine problems that device drivers cause.

Module 4: Resolving Network Connectivity Issues

This module explains how to configure and troubleshoot both wired and wireless network connections.Lessons

- Lesson 1: Determining Network Settings
- Lesson 2: Troubleshooting Issues with Network Connectivity

Lab : Resolving Network Connectivity Issues

- Exercise 1: Resolving a Network Problem (1)
- Exercise 2: Resolving a Network Problem (2)

After completing this module, students will be able to:

- o Determine the network configuration of client computers.
- o Troubleshoot network connections.

Module 5: Resolving Remote Connectivity Issues

This module explains how to configure and troubleshoot technologies that enable remote users to connect to an organization's network infrastructure. These technologies can include virtual private networks (VPNs), Network Access Protection (NAP), and Windows 7 DirectAccess.Lessons

- Lesson 1: Troubleshooting VPN Connectivity Issues
- Lesson 2: Using Remote Desktop
- Lesson 3: Troubleshooting User Issues by Using Remote Assistance
- Lesson 4: Troubleshooting NAP Issues
- Lesson 5: Troubleshooting DirectAccess Issues

Lab : Resolving Remote Connectivity Issues

- Exercise: Resolving a Remote Connectivity Problem

After completing this module, students will be able to:

- o Configure and troubleshoot VPN connections.
- o Use Remote Desktop.
- o Use Remote Assistance.
- o Troubleshoot NAP issues.
- o Troubleshoot DirectAccess issues.

Module 6: Resolving Issues with Logon and Resource Access

This module explains how to troubleshoot and resolve logon issues related to user profiles, file access, and printer access.

Lessons

- Lesson 1: Troubleshooting Issues with User Logon
- Lesson 2: Troubleshooting Issues with User Profiles
- Lesson 3: Troubleshooting Issues with File Access
- Lesson 4: Troubleshooting Issues with Printer Access

Lab : Resolving Issues with Logon and Resource Access

- Exercise 1: Troubleshooting Offline Files
- Exercise 2: Troubleshooting a Missing Drive Mapping
- Exercise 3: Troubleshooting Missing Files in My Documents

After completing this module, students will be able to:

- o Troubleshoot issues relating to user logons.
- o Troubleshoot issues relating to user profiles.
- o Troubleshoot issues relating to file access.
- o Troubleshoot issues relating to printer access.

Module 7: Resolving Issues Related to Security

This module explains how to work with the wide range of security features that Microsoft Windows 7 uses to secure data, including both Encrypting File System (EFS) and BitLocker, as well as security configuration options included with Internet Explorer, and using file permissions to limit file access, usually on file servers.

Lessons

- Lesson 1: Recovering Files Encrypted by EFS
- Lesson 2: Recovering Drives Encrypted by BitLocker
- Lesson 3: Troubleshooting Issues with Internet Explorer and Content Access
- Lesson 4: Troubleshooting Issues with File Permissions

Lab : Resolving Issues Related to Security

- Exercise 1: Recovering a BitLocker Encrypted Drive
- Exercise 2: Resolving a Security Issue in Internet Explorer
- Exercise 3: Troubleshooting a File Access Problem

After completing this module, students will be able to:

- o Recover files encrypted by EFS.
- o Recover drives encrypted by BitLocker.
- o Troubleshoot issues with Internet Explorer and content access.
- o Troubleshoot issues with file permissions.

Module 8: Resolving Issues Related to Operating Systems and Applications

This module explains how to support the installation and operations of applications. It also addresses how to ensure that applications continue to function correctly and prevent security issues by applying updates in a timely way.

Lessons

- Lesson 1: Troubleshooting Issues with Application Installation
- Lesson 2: Troubleshooting Issues with Application Operations
- Lesson 3: Applying Application and Windows Updates

Lab : Resolving Issues Related to Operating Systems and Applications

- Exercise 1: Troubleshooting Application Installation
- Exercise 2: Troubleshooting Windows Updates
- Exercise 3: Troubleshooting AppLocker Policy Application
- Exercise 4: Troubleshooting Application Startup

After completing this module, students will be able to:

- o Troubleshoot issues with application installation.
- o Troubleshoot issues with application operations.
- o Apply application and Microsoft Windows updates.

Module 9: Resolving Performance-Related Issues

This module explains how to conduct proactive monitoring of your Microsoft Windows 7 computers
to avoid performance-related problems. It also covers supporting users by optimizing Windows 7, and
how to collect and interpret data that pertains to performance characteristics.

Lessons

- Lesson 1: Configuring Performance Options in Windows 7
- Lesson 2: Monitoring Reliability and Performance
- Lesson 3: Overview of Event Viewer

Lab : Resolving Performance-Related Issues

- Exercise: Resolving a Performance Problem

After completing this module, students will be able to:

- o Configure performance options in Windows 7.
- o Monitor reliability and performance of Windows 7 computers.
- o Use Event Viewer to identify and help resolve problems with Windows 7 computers.

Module 10: Appendix A: Implementing a Troubleshooting Methodology

This supplementary material / optional Module covers the responsibilities of an enterprise desktop
support technician (EDST), the benefits of developing a troubleshooting methodology, and the
benefits of following the procedures laid down in that methodology.
Lessons

- Lesson 1: Introduction to the Enterprise Desktop Support Technician Job Role
- Lesson 2: Overview of Troubleshooting Steps

After completing this module, students will be able to:

- Describe the job role of the EDST.
- Describe the steps of a typical troubleshooting methodology.