



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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**CODE:**            **DURÉE:**            **PRIX H.T.:**

MCS\_10982      40 Hours (5 Jours)      €2,895.00

## Description

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

## Objectifs

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

## 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. The secondary audience for this course are IT professionals who administer and support Windows 10 desktops, devices, users, and associated network and security resources. Students who seek certification in the 70-697, Windows 10 Configuring exam will also benefit from this course

## Prérequis

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 2012 R2 fundamentals.
- Microsoft Windows Client essentials; for example, experience with Windows 10 or knowledge from the courses 20697-1 and 20697-2.

## Programme

### 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.

Overview of Windows 10

Introduction to the EDST Job Role

Overview of the Troubleshooting Steps

Lessons 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).

Overview of the Windows 10 Startup Recovery Environment

Troubleshooting Startup Settings

Troubleshooting Operating System Services Issues

Lessons Recovering BitLocker-Protected Drives

Lab : Troubleshooting Startup Issues

Resolving a Startup Issue (1)

Recovering a BitLocker-Encrypted Drive

Resolving a Startup Issue (2) Lab : Recovering BitLocker-Encrypted Drives Creating a New BitLocker Password

Describe the Windows 10 startup architecture.

Optimize and troubleshoot startup settings.

Troubleshoot Windows 10 operating system services.

After completing this module, students will be able to: 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.

Using Remote Desktop

Using Remote Assistance

Lessons Remoting with Windows PowerShell

Using Remote Desktop

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

Lab : Troubleshooting Remote Computer by Using Windows PowerShell Using Windows PowerShell Remoting

Use Remote Desktop to manage remote computers.

Use Windows Remote Assistance to manage remote computers.

After completing this module, students will be able to: Use Windows PowerShell remoting to manage remote computers.

### **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.

Determining Network Settings

Troubleshooting Network Connectivity

Lessons 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 Group Policy**

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

#### Overview of Group Policy Application

Lessons Resolving Client-Configuration Failures and GPO Application Issues

Resolving Group Policy Application (1)

Resolving Group Policy Application (2)

Lab : Troubleshooting Issues with Group Policy Application Resolving Group Policy Application (3)

Lab : Resolving Issues with Group Policy Resolving Group Policy Application (1)

Understand Group Policy application.

Troubleshoot Group Policy application.

After completing this module, students will be able to: Resolve client configuration failures and GPO application.

### 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

#### Troubleshooting Sign In Issues

Resolving Sign-In Issue 1

.Lessons Troubleshooting the Application of User Settings Lab : Troubleshooting Sign in Problems Resolving Sign-In Issue 2

Lab : Troubleshooting the Application of User Settings Resolving Folder Redirection Issue

Troubleshoot user sign-in issues.

After completing this module, students will be able to: 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.

#### Troubleshooting VPN Connectivity Issues

Troubleshoot VPN Connectivity Issue 1

#### Troubleshooting DirectAccess

Lab : Troubleshooting VPN Connectivity

Troubleshoot VPN Connectivity Issue 2

Prepare the DirectAccess Implementation

Configuring and Verifying Client-Side Settings for DirectAccess

Lab : Configuring and Troubleshooting DirectAccess Troubleshooting DirectAccess

Troubleshoot virtual private network (VPN) connectivity issues.

After completing this module, students will be able to: Configure and troubleshoot 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

#### Troubleshooting File Permissions Issues

Resolving a File Access Issue (1)

#### Recovering Files Encrypted by EFS

Resolving a File Access Issue (2)

.Lessons Troubleshooting Printer Access Issues Lab : Troubleshooting File Access Issues Resolving a File-Access Issue (3)

Lab : Troubleshooting Access to Encrypted Files Encrypting and Recovering Access to Encrypted Files

Resolving a Printer Access Issue (1)

Lab : Troubleshooting Printer Issues 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.

#### Configuring and Troubleshooting Device Registration

#### Configuring and Troubleshooting Work Folders

Lessons Configuring and Troubleshooting OneDrive Access

Troubleshooting Device Registration

Troubleshooting Work Folders 1

Troubleshooting Work Folders 2

Lab : Troubleshooting Resource Access for Clients That Are Not Domain Members Troubleshooting OneDrive for Business

Configure the Device Registration feature.

Configure and troubleshoot the Work Folders feature.

After completing this module, students will be able to: 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.

#### Troubleshooting Desktop App Installation Issues

#### Troubleshooting Desktop Apps

#### Managing Windows Store Apps

Lessons 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.

File Recovery in Windows 10

Lessons 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.

Additional Reading

To help you prepare for this class, review the following resource: Microsoft Windows SDK.

### **Dates de session**

Sur demande. [Merci de nous contacter](#)

### **Informations**

#### **Complémentaires**

[Cette formation est également disponible sous forme de formation sur site. Veuillez nous contacter pour en savoir plus.](#)