

# 50331 – Windows 7, Enterprise Desktop Support Technician

**Vendor Course Code:** 50331

**Course Length:** 5 days

**Overview:** This five-day instructor-led course provides students with the knowledge and skills needed to isolate, document and resolve problems on a Windows 7 desktop or laptop computer. It will also help test takers prepare for the 70-685 exam.

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

- Identify and Resolve Desktop Application Issues
- Identify the Cause of and Resolve Networking Issues
- Manage and Maintain Systems That Run Windows 7
- Support Mobile Users
- Identify the Cause of and Resolve Security Issues

**Key Topics:** **Module 1: Identify and Resolve New Software Installation Issues**

This module explains how to fix problems that occur during the installation of new software.

Lessons  
Overview  
Planning New Software Deployment  
Multilingual Deployment  
Using Group Policy to install software  
Using Software Restriction Policies  
Digitally Signing Software  
Using WMI  
Using Applocker  
Using Virtualisation for Testing  
Resolve Software Installation Issues  
Review

Lab: Identify and Resolve New Software Installation Issues  
Create a Repair Disk and Installation Partitions  
Install and Configure Windows 7  
Install Programs and test Applocker  
Configure Compatibility Settings

After completing this module, students will be able to:

- Understand the different installation options for Windows 7
- Understand the different installation options for Windows 7 applications
- Resolve Windows 7 installation problems
- Prevent users from running unapproved applications

**Module 2: Resolve Software Configuration Issues**

This module explains how to fix application install problems caused by older programs or new features and options.

Lessons  
Overview  
Change Default Settings on the Image  
Enable and Disable Features  
Pointing to a Network Resource  
Configuring Updates  
Resolve Configuration Issues with Group Policy

Driver Updates  
Problem Steps Recorder  
Resolve Software Configuration Issues  
Review

Lab: Resolve Software Configuration Issues  
Install the Windows Automated Installation Kit  
Create a Windows PE bootable image  
Create a VHD disk  
Install Windows 7 on a VHD  
Boot Windows 7 from a VHD  
Use the Problem Steps Recorder

After completing this module, students will be able to:

- Create a Windows 7 VHD disk
- Configure operating system features
- Understand the impact of Driver Updates
- Fix software configuration problems
- Use the Problem Steps Recorder tool

### **Module 3: Resolve Software Failure**

This module explains how to fix problems with applications that have problems after being installed.

Lessons  
Overview  
Event Viewer  
Event Forwarding  
Application Compatibility Toolkit  
Windows Troubleshooting Platform  
Windows Experience Index  
Testing Compatibility with Safe Mode  
System Restore  
Resolve Software Failure  
Review

Lab: Resolve Software Failure  
Install applications written for older versions of Windows  
Use the Program Compatibility Tool to configure settings for older applications  
Use PowerShell scripts to configure Network Adapters  
Use the Troubleshooter to enable the network adapter  
Install Windows 7 SDK  
Create a Troubleshooting Pack with the SDK  
Configure Event Forwarding  
Use System Restore

After completing this module, students will be able to:

- Configure Event Forwarding
- Use System Restore to fix desktop problems
- Create a Windows 7 Troubleshooter

### **Module 4: Identify and Resolve Logon Issues**

This module explains how to fix logon problems and configure local and roaming logon profiles.

Lessons  
Overview  
Authentication Process  
Machine Accounts  
Trust Relationships  
Network Services  
User Account Properties  
User Profiles  
Resolve Logon Issues  
Review

Lab: Identify and Resolve Logon Issues

Join a computer to the domain  
Install Remote Server Administration Tools (RSAT)  
Test and Verify Domain User Account Properties  
Create Logoff script using PowerShell  
Test the use of Roaming Profiles  
Test the use of Mandatory Profiles

After completing this module, students will be able to:

- Create Roaming and Mandatory User Profiles
- Configure Machine Accounts in Active Directory
- Configure User Account Properties in Active Directory

### **Module 5: Identify and Resolve Network Connectivity Issues**

This module explains how to troubleshoot connectivity and network problems for client computers.

Lessons  
Overview  
Scope of the Problem  
Hardware Issues  
TCP/IP Configuration  
Network Routing  
IPSec Configuration  
Network Connectivity Tools  
Branch Cache  
Resolve Network Connectivity Issues  
Review

Lab: Identify and Resolve Network Connectivity Issues  
Use command-line tools to identify and fix network connectivity problems  
Fix connectivity problems caused by problem scripts

After completing this module, students will be able to:

- Use command-line tools to troubleshoot connectivity problems
- Use the Windows Troubleshooters to fix configuration issues
- Configure Advanced TCP/IP options on a client computer

### **Module 6: Identify and Resolve Name Resolution Issues**

This module explains how to use network services and local computer files to resolve computer names.

Lessons  
Overview  
DNS Name Resolution  
Using a Hosts files  
WINS Configuration  
Using LMHOSTS files  
Name Resolution Order  
Manual vs DHCP Configuration  
Resolve Name Resolution Issues  
Review

Lab: Identify and Resolve Name Resolution Issues  
Configure and Test DNS Resolution  
Configure and Test Hosts File Resolution  
Configure and Test NetBIOS Resolution

After completing this module, students will be able to:

- Configure records on a DNS Server
- Configure HOSTS records
- Using command-line and scripting tools to configure TCP/IP settings

### **Module 7: Identify and Resolve Network Printer Issues**

This module explains how to configure printer settings and security.

Lessons  
Overview  
Connecting to a Network Printer  
Managing the Print Spooler  
Setting Printer Priorities  
Creating Printer Pools  
Configuring Drivers  
Printer Schedules  
Printer Permissions  
Manage Printers with Group Policy Settings  
Resolve Network Printer Issues  
Review

Lab: Identify and Resolve Network Printer Issues  
Install local and network printers  
Create and use a separator page  
Configure Printer Redirection and Printer Pooling  
Move the Print Spooler Directory

After completing this module, students will be able to:

- Optimise the performance of the Print Spooler
- Redirect Print Jobs from non-functioning Printers
- Manage Active Directory registration of Printers
- Manage Printer Permissions

### **Module 8: Identify and Resolve Performance Issues**

This module explains how to improve the performance of a system by monitoring and controlling the use of resources by applications.

Lessons  
Overview  
Analysing Event Logs  
Setting Power Management  
Optimise Processor Usage  
Optimising Memory Usage  
Optimise Hard Drive Usage  
Optimise Network Usage  
Performance Tools  
Resolve Performance Issues  
Review

Lab: Identify and Resolve Performance Issues  
Schedule and Perform a Disk Defragmentation  
Using Task Manager  
Using Resource Monitor  
Display a message when a Service stops

After completing this module, students will be able to:

- Configure automatic responses to Service failure
- Manage the use of Processing resources by applications
- View and control active connections to a computer
- Optimise Hard-Disk performance

### **Module 9: Identify and Resolve Hardware Failure Issues**

This module explains how to diagnose hardware problems on a computer.

Lessons  
Overview  
Diagnosing Memory Failure Issues  
Hard Drive Issues  
Network Card Issues  
Power Supply Issues  
Windows Hardware Diagnostic Tools  
Resolve Hardware Failure Issues  
Review

Lab: Identify and Resolve Hardware Failure Issues  
Use the Windows Memory Diagnostics Tool  
Fix Hard Disk Errors  
Use the Reliability Monitor  
Use Event Viewer to Find Hardware Information

After completing this module, students will be able to:

- Understand how to be proactive in dealing with hardware problems
- Use Windows 7 hardware diagnostic tools

### **Module 10: Identify and Resolve Wireless Connectivity Issues**

This module explains how to configure reliable and secure wireless connectivity for client computers.

Lessons  
Overview  
Signal Strength  
Wireless Security  
Wireless Profiles  
Management Options for Wireless Devices  
Resolve Wireless Connectivity Issues  
Review

Lab: Identify and Resolve Wireless Connectivity Issues  
No Lab Exercises

After completing this module, students will be able to:

- Understand the encryption options available for wireless networks
- Use Windows 7 Wireless security options
- Fix client connectivity problems

### **Module 11: Identify and Resolve Remote Access Issues**

This module explains how to configure remote network connections for client computers.

Lessons  
Overview  
Remote Access Methods  
Dial-up Configuration  
VPN Configuration  
DirectAccess Configuration  
Authentication Protocols  
Resolve Remote Access Issues  
Review

Lab: Identify and Resolve Remote Access Issues  
Configure Remote Access settings for a domain user account  
Create and Test a VPN Connection

After completing this module, students will be able to:

- Understand the security options available when creating remote access connections
- Understand the new capabilities of VPN connections that use DirectAccess
- Resolve connectivity problems for VPN and Dial-Up connections

### **Module 12: Manage File Synchronisation**

This module explains how to allow end-users to work with network files that are being synchronised on their local desktops or laptops.

Lessons  
Overview  
Configuring Offline File Access  
Synchronisation Settings  
Transparent Caching  
Roaming Profiles  
Restoring Network Files

Resolve File Synchronisation Problems  
Review

Lab: Manage File Synchronisation  
Configure and Test Offline Files  
Restore the Previous Version of a File

After completing this module, students will be able to:

- Configure Transparent Caching
- Restore deleted network files

### **Module 13: Identify and Resolve Internet Explorer Security Issues**

This module explains how to configure the security features in Internet Explorer to protect user information and privacy.

Lessons  
Overview  
Configure Security Zone  
Configure Security Levels  
Configure Privacy Settings  
Managing Add-ons  
Configure Smart Screen Filter  
Other Security Issues  
Resolve Internet Explorer Security Issues  
Review

Lab: Identify and Resolve Internet Explorer Security Issues  
Configure Trusted Security Zone  
Configure the Security and Privacy Features in IE  
Configure Group Policy Settings for Internet Explorer

After completing this module, students will be able to:

- How to use new security features like Smart Screen Filtering
- Manage Internet Explorer Add-ons
- Use IE features to warn the user about potential security problems

### **Module 14: Identify and Resolve Firewall Issues**

This module explains how to configure Windows Firewall to secure network traffic and applications on a computer.

Lessons  
Overview  
Securing Network Applications and Features  
Program and Port Exceptions  
Configuring Notifications and Logging  
Network Security Tools  
Resolve Firewall Issues  
Review

Lab: Identify and Resolve Firewall Issues  
Configure and Test Firewall Rules for an application  
Fix Application Problems Caused by Firewall Rules

After completing this module, students will be able to:

- Block applications from communicating over the network
- Record and setup notifications of unapproved network communication
- Fix problems caused by improper configuration of Windows Firewall

### **Module 15: Identify and Resolve Issues Due To Malicious Software**

This module explains how to restore a computer system after an attack by viruses or other malicious software.

Lessons  
Overview

Proactive Malware Protection  
Protecting Internet Explorer  
Windows and Anti-Virus Updates  
Recovering From Malware Infection  
Resolve Issues Due To Malicious Software  
Review

Lab: Identify and Resolve Issues Due To Malicious Software  
Use the Action Centre to manage UAC settings  
Use Windows Defender  
Use System File Checker  
Use the Malicious Software Removal Tool

After completing this module, students will be able to:

- Identify problems caused by viruses and other malware
- How to protect Internet Explorer and E-mail applications from malware attack
- How to prevent data loss and fix a computer after a malware attack

### **Module 16: Identify and Resolve Encryption Issues**

This module explains how to fix problems caused by using encryption on a Windows computer.

Lessons  
Overview  
Configuring a Recovery Agent  
Using EFS  
Using BitLocker  
Encryption Tools  
Resolve Encryption Issues  
Review

Lab: Identify and Resolve Encryption Issues  
Encrypt Files using EFS  
Configure EFS Sharing  
Configure a Recovery Agent

After completing this module, students will be able to:

- Recover from lost encryption keys
- How to encrypt individual files using EFS
- Use BitLocker to protect laptops and insecure computers

### **Module 17: Identify and Resolve Software Update Issues**

This module explains how to enable and use the software update features available in Windows 7.

Lessons  
Overview  
Types of Windows Updates  
Using Windows Update  
Using Microsoft Update  
Resolve Software Update Issues  
Review

Lab: Identify and Resolve Software Update Issues  
Configure Windows Updates using desktop settings  
Configure Windows Updates using Group Policy settings

After completing this module, students will be able to:

- Configure client computers to get updates from the local network instead of the Internet
- Understand the different options available when updating the operating system
- Understand how to configure automatic updates for Microsoft applications

### **Additional Reading**

To help you prepare for this class, review the following resources:

- Classroom Training: Course 6292
- Microsoft Press Book: MCTS Self-Packed Training Kit (Exam 70-680): Configuring Microsoft Windows 7

**Target Audience:**

This course is intended for Windows 7 desktop support technicians who resolve Tier 1 and 2 problems on desktop computers. A minimum of three years of experience configuring and supporting desktop or laptop operating systems is recommended.

**Prerequisites:**

This five-day instructor-led course provides students with the knowledge and skills needed to isolate, document and resolve problems on a Windows 7 desktop or laptop computer. It will also help test takers prepare for the 70-685 exam.