

# Windows 7, Enterprise Desktop Support Technician

- **Course Number:** 70-685

## Certification Exam

This course is preparation for the Microsoft Certified IT Professional (MCITP) Exam, Exam 70-685: Pro: Windows 7, Enterprise Desktop Support Technician.

## Course Overview

Exam 70-685 Pro: Windows 7, Enterprise Desktop Support Technician: counts as credit toward the following certification(s):

- MCITP: Enterprise Desktop Support Technician 7

## Prerequisites/Audience

Candidates for this exam support end users who run Microsoft Windows 7 in a corporate environment. They should have experience using applications that are included with the operating system, such as productivity applications used in a corporate environment and Microsoft Office applications.

Candidates should be able to resolve operating system issues by telephone, email, connecting to an end user's system remotely, or by visiting an end user's desktop. They should have a working knowledge of operating in an Active Directory domain environment.

## Course Outline

### Course Introduction

4m

Course Introduction

### Chapter 01 - Identifying Cause and Resolving Desktop

2hr 30m

#### Application Issues

Identifying Cause and Resolving Desktop Application Issues

Role of Enterprise Technician

Troubleshooting Windows 7

Programs Troubleshooting

Using a Troubleshooter

Demo - Troubleshooter

Problem Steps Recorder

Problem Steps Recorder Output

Demo - Problem Steps Recorder

Software Installation Methods

Installing Applications  
Using Group Policy to Install Software  
Demo - GPO Driver Installation  
Other Group Policy Settings  
Group Policy and Software Restrictions  
Order of Software Restriction Policies Processing  
Enforcement Rules  
AppLocker  
AppLocker Requirements  
Creating AppLocker Rules Procedure Reference  
Demo - AppLocker Rules  
AppLocker Advantages  
AppLocker Disadvantages  
Installation Permissions and Compatibility  
Mitigation of Compatibility Issues  
Application Compatibility Options  
Digital Signing Software  
Program Compatibility - Control Panel  
Application Compatibility Toolkit Features  
Application Compatibility Toolkit (ACT)  
Running Applications in Compatibility Mode  
Demo - Compatibility Toolkit  
Other Tools to Know About  
User Account Control (UAC)  
Demo - User Account Control  
Windows Installer  
Identifying Cause of and Resolving Desktop Application Issues  
Running Legacy Applications  
How to Update Applications  
Application Updates  
Windows Update  
Demo - Windows Update  
WSUS  
GPO Options - WSUS  
WSUS Server Administrator  
WSUS Options  
Troubleshooting Windows Update  
Windows Management Instrumentation (WMI)  
WMI Tasks  
Sample VB Script Using WMI  
Internet Explorer  
Internet Explorer Privacy Settings  
Internet Explorer Add-Ons  
Demo - Internet Explorer Add-Ons  
Smart Screen Filter

Demo - Smart Screen Filter  
Browsing History  
Web Site Certificates  
Group Policy Restrictions  
Demo - Group Policy Restrictions  
Restore Default Settings  
Chapter 01 Review

**Chapter 02 - Operating System Troubleshooting and Support**

**2hr 34m**

Operating System Troubleshooting and Support  
Startup Architecture  
Windows Startup Recovery: Two Options  
Windows Startup Recovery: Advanced Boot Options  
Demo - Windows Advanced Startup Options F8  
Recovery Tools in Windows RE  
Demo - Windows RE  
Windows System Restore  
Demo - System Restore  
BCD  
MSConfig.exe  
Demo - MSCONFIG  
BCDEdit.exe  
Demo - BCDEdit  
Demo - Editing BCD  
Safe Mode Options  
Identifying Software Update Level  
Demo - Identifying Software Update Level  
Working with Services  
Configuring Services  
Demo - Configuring Services  
Finding Problems with Services  
Ways to Disable Services  
Demo - SC Query  
OS Troubleshooters  
Troubleshooting Pack Components  
Event Viewer  
Demo - Event Viewer  
Event Log Configuration  
Properties in Event Viewer  
Event Viewer and Task Scheduler  
Demo - Attach a Task in Event Viewer  
Event Forwarding  
Creating Event Subscriptions  
Enabling Subscriptions for Event Forwarding  
System Restore

Windows Experience Index  
How Scores Work Together  
Demo - Windows Experience Index  
Windows 7 and Language Packs  
New Features of Language Packs  
Language Pack Deployment Options  
Multilingual Deployments  
Language Deployment  
Test Environments  
Imaging  
Windows Deployment Services  
Unattended Setup - WDS  
Microsoft Deployment Toolkit  
ImageX Commands  
ImageX Commands (Cont.)  
Internet Explorer Compatibility  
Enabling Compatibility  
Demo - Internet Explorer Compatibility  
Chapter 02 Review

### **Chapter 03 - Networking with Windows 7**

**3hr 17m**

Networking with Windows 7  
Windows 7 Network Access  
Demo - Network and Sharing Center  
Demo - Connect/Disconnect VPN  
Link Layer Topology Discover (LLTD)  
Troubleshooting: Wired Networks  
Troubleshooting: Wireless  
Wireless Signal Strength  
Network Protocols  
Wireless Security  
Encryption Methods  
Wireless Profiles - Manual Configuration  
Demo - Wireless GPO  
Automatic Configuration  
Network Hardware  
Network Architecture  
Network Scope  
TCP/IP Configuration  
Demo - IPCONFIG  
TCP/IP Utilities  
Demo - TCP/IP Utilities  
Demo - Telnet  
Testing Connectivity with IPv4  
Demo - Testing Connectivity

IPv6  
Name Resolution  
Domain Name System (DNS)  
Hosts File  
Windows Internet Name Service (WINS)  
LMHOSTS  
Order of Name Resolution Methods  
Link-local Multicast Name Resolution (LLMNR)  
Troubleshooting: Name Resolution  
IPSec  
Authentication of Connections  
Network Profiles  
Network Diagnostics  
Remote Access Methods  
VPN and Dial-up Authentication  
Direct Access Configuration  
Direct Access Authentication Methods  
Connection Manager Administration Kit  
Troubleshooting Remote Access  
Branch Cache  
Branch Cache - Configuration Options  
Chapter 03 Review

#### **Chapter 04 - Configuring Security and Troubleshooting Issues**

**1hr 56m**

Configuring Security and Troubleshooting Issues  
Certificates  
Certificate Types  
Encrypting Files System  
EFS Encryption Keys  
Process of EFS  
Recovery Agents  
EFS Configuration  
Best Practices for EFS  
BitLocker Drive Encryption  
BitLocker Recovery  
How to Determine If Your Computer Has TPM  
Group Policy Settings - BitLocker  
BitLocker Best Practices  
BitLocker to Go  
Internet Explorer  
Demo - Configuring Internet Explorer  
User Account Control  
Firewalls  
Demo - Windows Advanced Firewall  
Windows Firewall with Advanced Security

Create a New Rule  
Exceptions  
Conflicting Firewall Rules  
Logging  
Network Security Tools  
Windows Defender  
Demo - Netsh  
Protecting the OS from Attacks  
Types of Issues as a Result of Infection  
Windows 7 Tools and Features  
Demo - Registry Editor  
Demo - Action Center  
Demo - Windows 7 Action Center  
Protecting the PC Proactively  
Programs to Assist  
Most Effective  
Anti-Virus Software  
Microsoft Security Essentials  
Spyware and Preventative Measures  
Internet Explorer Protection  
How to Know If Your Infected  
How to Respond to Infected PC  
Chapter 04 Review

**Chapter 05 - Supporting Mobile Users**

**1hr**

Supporting Mobile Users  
VPN Networking  
VPN Protocols  
VPN Authentication Methods  
Network Policies  
Network Policies Flow  
Remote Desktop  
Demo - Remote Desktop  
Configure Remote Desktop through GPO  
Demo - GPO - RDP  
Remote Assistance  
Configuring Remote Assistance with GPO  
Network Access Protection  
Troubleshooting NAP  
Direct Access  
DirectAccess Configuration Notes  
Branch Cache  
Setting Power Management  
Demo - Power Management  
Chapter 05 Review

## **Chapter 06 - Maintaining Hardware on Windows 7**

**1hr 52m**

Maintaining Hardware on Windows 7

Types of Failures

Identifying Hardware Issues

Demo - Hardware Information

Troubleshooting Hardware

Devices Most Likely to Fail

Memory Failures

Hard Drive Failure

Demo - Hard Drives

Working with Hard Drive Issues

Network Card Issues

Power Supply Issues

Hardware Diagnostic Tools Summary

Resource Monitor

Demo - Resource Monitor

Performance Monitor

Demo - Performance Monitor

What Are Data Collector Sets?

Demo - Data Collector Sets

What Is Reliability Monitor?

Demo - Reliability Monitor

Performance Issues

Demo - Process Affinity

Common Components

Device Drivers

Removing Unsigned Drivers

PNPUtil.exe

Driver Verifier

Updating Drivers

Safe Mode

Safe Mode Notes

Legacy Programs with Driver Install

Configuring Page File

Demo - Virtual Memory

Power Management

Managing USB Devices

Windows 7 Clients and Printer Installation

Mobile Users and Printing

XPS Based Printing

Printer Driver Issues

Print Spooler

Spooler Options

Configuration Options

Printer Pools

Installing Printers on the Network  
Printers and Group Policy  
How to Connect to Network Printers  
Internet Printers  
Printer Permissions  
Location Aware Printing  
Chapter 06 Review

**Chapter 07 - Centralizing Configurations**

**39m**

Centralizing Configurations  
What is Group Policy  
Group Policy Settings  
Demo - Local GPO  
Tools to Determine Group Policy Issues  
Demo - GPO Server  
Administrative Templates  
Group Policy Application and Processing Order  
Settings That Can Affect Group Policy  
GPO Examples  
Synchronous GPO Processing  
Asynchronous GPO Processing  
Loopback Processing  
GPO Troubleshooting  
GPO Tools  
Event Viewer  
Event Forwarding  
Chapter 07 Review

**Chapter 08 - User Login, Profiles and Access to Resources**

**1h 33m**

User Login, Profiles and Access to Resources  
Login Process  
Types of Authentication  
Demo - User Accounts  
Multi-factor Authentication  
Network Infrastructure  
Active Directory  
Active Directory Infrastructure  
Active Directory Topology  
Network Based Services  
DNS  
Types of DNS Zones  
Demo - DNS  
DHCP  
Time Servers  
Trust Relationships



Trust Examples  
Machine Accounts  
Benefits of Pre-staging Computer Accounts  
User Accounts  
Cached Credentials  
User Profiles  
Local Profiles  
Roaming User Profiles  
Mandatory User Profiles  
Troubleshooting: Login Settings  
Troubleshooting: Logon Errors  
Drive Mappings  
Demo - Drive Mappings  
Shared Folders  
Offline Files  
Offline File Settings – Server Side  
Demo - Offline Files  
Configuring Offline Files – Client Side  
Sync Center  
Offline Files Options  
Troubleshooting: Offline Files  
Transparent Caching  
NTFS Security  
Combining Shared Permissions with NTFS Permissions  
Inheritance  
NTFS DENY Permission  
Using DFS for Access to File Resources  
How DFS Works  
Notes About DFS  
Restoring Files – Local and Network  
Backups  
Chapter 08 Review  
Course Closure

**Total Duration:** 15h 25m