

Course 20688D: Supporting Windows® 8.1

Five Days, Instructor-Led

About this course

Gain the knowledge and skills you need to support the Windows 8.1 operating system and solve technical troubleshooting problems in a Windows 8.1 and Windows Server 2012 R2 networking environment. This course is designed for IT professionals who have experience with Windows devices and who work as Windows Enterprise Desktop Support Technicians (EDSTs) in Tier 2 support environments. Through this instructor lead, five day Microsoft Official Course, with extensive hands-on labs you will learn how key components of the Windows Operating system work in order to aid in troubleshooting system problems. How to identify and resolve issues with networking, Windows Store apps, security, group policy, Internet Explorer, remote access, and support of mobile devices.

This course uses new versions of Desktop Optimization Package (MDOP), Application Compatibility Toolkit (ACT), Windows Performance Toolkit (WPT), Microsoft Message Analyzer, and is the first course that uses the popular Sysinternals tools, and other tools. This course also helps candidates prepare for Exam 70-688, MCSA: Supporting Windows 8.1.

NOTE: This course is based on Windows 8.1 Enterprise Edition with domain services provided by Windows Server 2012 R2.

Microsoft OneDrive® is used as part of the lab for this course, which may not be available in all countries. Please confirm with your Microsoft training provider that this cloud service is available in your area. Training Providers please reference the course setup guide for more details.

Audience profile

This course is primarily intended for the Enterprise Device Support Technician (EDST), who provide Tier 2 support to users running Windows desktops and devices in medium to large enterprise organizations, within a Windows domain environment. EDSTs are experienced IT Professionals who focus on a broad range of technical issues for Windows operating systems, devices, cloud services, applications, networking, and hardware support. Key responsibilities include resolving technical issues pertaining to Windows installation and migration, activation, performance, profiles, settings and device synchronization, local and remote network access, access to applications, access to data and printers, authentication, endpoint security and policy, operating system and data recovery.

EDSTs must combine technical expertise with problem solving and decision making skills and a deep understanding of their business and technical environments to quickly resolve support issues. They consider all variables, justify resolutions with a logical troubleshooting approach, and relate tradeoffs while adhering to business and technical requirements and constraints. EDSTs are primarily responsible for the maintenance and support of desktops and devices, installing and testing line-of-business applications on these devices, and physically making changes to user devices or re-images as required.

The secondary audience for this course can include students preparing to take exam 70-688.

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 8.1.
- Troubleshoot startup issues and operating system services on a Windows 8.1 system.
- Resolve issues related to hardware devices and device drivers.
- Troubleshoot computers remotely.
- troubleshoot issues related to network connectivity.
- Troubleshoot client configuration failures and GPO application issues.
- Troubleshoot issues related to user settings.
- Troubleshoot remote connectivity issues.
- Resolve issues related to accessing resources from computers that are domain-joined.
- Resolve issues related to accessing resources from computers that are not domain-joined.
- Troubleshoot issues related to application installation and operation.
- Maintain Windows 8.1 following deployment.
- Design and implement extranet connectivity for Windows 8.
- Recover a computer running Windows 8.1.

Pre-requisites

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 and fundamentals of AD DS management
- Understanding of the Public Key Infrastructure (PKI) components and working knowledge of the fundamentals of Active Directory Certificate Services (AD CS)
- Windows Server 2008 R2 or Windows Server 2012 fundamentals
- Microsoft Windows Client fundamentals; for example, working knowledge of Windows XP, Windows Vista, Windows 7 and/or Windows 8
- Fundamentals of management and experience using the Microsoft Office 2013 system or the Microsoft Office 2010 system
- Windows Automated Installation Kit (WAIK) components including Windows PE, Windows SIM, VAMT, ImageX, USMT, and DISM concepts and fundamentals

Course Outline

Module 1: Implementing a Troubleshooting Methodology

This module provides an introduction to the Windows 8.1 system architecture and explains how to identify the common troubleshooting scenarios. The module also provides an overview of a typical troubleshooting process.

Lessons

- Overview of Windows 8.1
 - Overview of Troubleshooting Steps
- Lab : Troubleshooting Windows 8.1**
- Developing a Plan of Action

After completing this module, students will be able to:

- Describe Windows 8.1.

- Describe a typical troubleshooting methodology and apply it to troubleshooting Windows 8.1.

Module 2: Troubleshooting Startup Issues

This module provides an overview of the Windows 8.1 startup recovery environment and explains how to troubleshoot startup settings and issues. The module also describes how to recover BitLocker-operated drives.

Lessons

- Overview of the Windows 8.1 Startup Recovery Environment
- Troubleshooting Startup Settings
- Troubleshooting Operating System Services Issues
- Recovering BitLocker-Protected Drives

Lab : Troubleshooting Startup Issues

- Resolving a Startup problem (1)
- Resolving a Startup Problem (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 8.1 startup architecture.
- Optimize and troubleshoot startup settings.
- Troubleshoot Windows 8.1 operating system services.
- Recover drives encrypted with BitLocker Drive Encryption.

Module 3: Troubleshooting Hardware and Device Drivers

This module explains how to troubleshoot hardware issues, physical failures, and device

driver failures. It also describes how to monitor reliability and configure the registry.

Lessons

- Overview of Hardware Troubleshooting
- Troubleshooting Physical Failures
- Troubleshooting Device Driver Failures
- Monitoring Reliability
- Configuring the Registry

Lab : Troubleshooting Hardware and Device Drivers

- Resolving Hardware Issues
- Configuring Group Policy Settings to Control Device Installation

After completing this module, students will be able to:

- Describe the process for troubleshooting hardware.
- Troubleshoot physical hardware failures.
- Troubleshoot hardware device drivers.
- Monitor Windows 8.1 reliability.
- Configure the Windows 8.1 registry.

Module 4: Troubleshooting Remote Computers

This module describes how to perform remote troubleshooting by using Windows 8.1 features such as Remote Desktop, Remote Assistance, and Windows PowerShell remoting.

Lessons

- Using Remote Desktop
- Using Remote Assistance
- Remoting with Windows PowerShell

Lab : Troubleshooting Remote Computers

- Using Remote Desktop
- Using Remote Assistance
- 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.

Module 5: Resolving Network Connectivity Issues

This module explains how to identify network settings and troubleshoot network connectivity issues in wired and wireless networks, IPv4 and IPv6 connectivity, and name resolution.

Lessons

- Determining Network Settings
- Troubleshooting Network Connectivity Issues

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

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 Group Policy

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

After completing this module, students will be able to:

- Describe how GPOs are applied to computers.
- Resolve client-side configuration failures and GPO application issues.

Module 7: Troubleshooting User Settings

This module describes how to troubleshoot sign-in issues and issues in the application of user settings.

Lessons

- Troubleshooting Sign-in Issues
- Troubleshooting the Application of User Settings

Lab : Troubleshooting Sign-in Problems

- Resolving Sign-in Problem (1)
- Resolving Sign-in Problem (2)

Lab : Troubleshooting the Application of User Settings

- Resolving Folder Redirection Problem (1)

After completing this module, students will be able to:

- Troubleshoot user sign-in issues.
- Troubleshoot the application of user desktop settings.

Module 8: Configuring and Troubleshooting Remote Connectivity

This module describes how to troubleshoot issues in VPN connectivity, NAP, and DirectAccess.

Lessons

- Troubleshooting VPN Connectivity Issues
- Troubleshooting NAP Issues
- Troubleshooting DirectAccess

Lab : Configuring Network Access Protection Client Settings

- Configuring and Verifying NAP Client Connectivity

Lab : Configuring and Testing DirectAccess

- Configuring DirectAccess Client-Side Settings

After completing this module, students will be able to:

- Troubleshoot VPN connections.
- Troubleshoot NAP.
- Configure and troubleshoot DirectAccess.

Module 9: Troubleshooting Resource Access within a Domain

This module explains how to troubleshoot issues in file access and permissions. It also describes how to resolve printer access issues.

Lessons

- Troubleshooting File Access Issues
- Troubleshooting File Permissions Issues
- Troubleshooting Printer Access Issues

Lab : Troubleshooting Resource Access within a Domain

- Resolving a Logon Script Problem
- Resolving a File Permissions Issue

After completing this module, students will be able to:

- Troubleshoot file access issues.
- Troubleshoot file permissions issues.
- Troubleshoot printer access issues.

Module 10: Configuring and Troubleshooting Resource Access for Clients That Are Not Domain Members

This module describes how to configure and troubleshoot Workplace Join, Work Folders, and OneDrive Access.

Lessons

- Configuring Workplace Join
- Configuring and Troubleshooting Work Folders

- Configuring and Troubleshooting OneDrive Access

Lab : Configuring and Troubleshooting Resource Access for Clients That Are Not Domain Members

- Troubleshooting Workplace Join
- Troubleshooting Work Folders
- Troubleshooting OneDrive for Business
- Implementing Work Folders

After completing this module, students will be able to:

- Configure Workplace Join.
- Configure and troubleshoot Work Folders.
- Configure and troubleshoot Microsoft OneDrive access.

Module 11: Troubleshooting Applications

This module explains how to troubleshoot application installation issues and problems in desktop and Windows store apps. The module also describes how to resolve issues in Internet Explorer and Client Hyper-V.

Lessons

- Troubleshooting Desktop App Installation Issues
- Troubleshooting Desktop Apps
- Managing Windows Store Apps
- Troubleshooting Internet Explorer
- Implementing Client Hyper-V

Lab : Troubleshooting Desktop Apps

- Troubleshooting AppLocker Policy Application

Lab : Troubleshooting Windows Internet Explorer

- Resolving a Windows Internet Explorer Issue

After completing this module, students will be able to:

- Troubleshoot desktop app installation.
- Troubleshoot desktop app compatibility.
- Manage Windows Store apps.
- Troubleshoot Internet Explorer.
- Implement Client Hyper-V.
- Manage Windows volume activation.
- Monitor and configure performance options in Windows 8.1.
- Protect Windows 8.1 from malicious software and viruses.
- Update Windows 8.1.

Module 12: Maintaining Windows 8.1

This module describe how to troubleshoot activation issues and configure performance options in Windows 8.1. It also explains how to protect a Windows 8.1 system from malware and viruses and how to apply application and Windows updates.

Lessons

- Managing Windows Activation
- Monitoring and Configuring Performance Options in Windows 8.1
- Protecting Windows 8.1 from Malware and Viruses
- Applying Application and Windows Updates

Lab : Maintaining Windows 8.1

- Troubleshooting a Performance Problem

After completing this module, students will be able to:

Module 13: Recovering Windows 8.1

This modules explains how to restore files and recover a Windows 8.1 system.

Lessons

- File Recovery in Windows 8.1
- Recovery Options in Windows 8.1

Lab : Troubleshooting a Windows 8.1 Computer (1)

- Recovering Files in Windows 8.1

Lab : Troubleshooting a Windows 8.1 Computer (2)

- Recovering a Windows 8.1 Computer

After completing this module, students will be able to:

- Recover files in Windows 8.1.
- Recover a computer running Windows 8.1.

Course Inclusions:

- Microsoft Official Curriculum (MOC) and/or Wizards Learning Courseware (WLC)
- Microsoft Certified Trainer (MCT)
- Lunch, AM and PM Snacks
- Certificate of Achievement
- Course Note