



**The Learning Center
Las Vegas**



2018 Dates:

04/23/18 – 04/27/18
06/04/18 - 06/08/18
07/30/18 – 08/03/18
09/24/18 – 09/28/18

Course Outline: 20698: Installing and Configuring Win 10 (40-hour bootcamp)

About this course

This course is designed to provide students with the knowledge and skills required to install and configure Win 10 desktops and devices in a Windows Server domain corporate environment. This course is fast-paced for proficient professionals. These skills include learning how to install and customize Win 10 operating systems and apps, and configure local and remote network connectivity and storage. Students will also learn how to configure data security, device security, and network security, and maintain, update, and recover Win 10.

Audience profile This course is intended for IT professionals who administer and support Win 10 desktops, devices, users, and associated network and security resources. Students who seek certification in the 70-697 Win 10 Configuring exam will also benefit from this course. This course is also intended to provide skills for Enterprise Desktop/Device Support Technicians (EDSTs) who provide Tier 2 support to users who run Win 10 desktops and devices within a Windows domain environment in medium to large enterprise organizations.

At course completion

After completing this course, students will be able to:

- Describe the important new features of Win 10
- Install Win 10.
- Configure a device running Win 10.
- Configure network connectivity for a Win 10 device
- Manage storage in Win 10.
- Manage files and printers.
- Manage apps.
- Manage data security.
- Manage device security.
- Implement Win 10 features to improve network security
- Monitor and update Win 10 devices.
- Restore files, roll back drivers, and recover Win 10 devices.

Course Outline Module 1: Overview of Win 10

This module introduces the Win 10 operating system. It describes the new features in Win 10, and the important changes since Windows 8.1. It describes the use, navigation, and customization of the new, enhanced user interface. This module also mentions the features of Win 10 that make it beneficial for organizations of different sizes.

Lessons

- Introducing Win 10
- Navigating the User Interface

Lab : Navigating and Customizing the User Interface

- Navigating the Win 10 User Interface
- Configuring Start
- Configuring the Desktop

Module 2: Installing Win 10

This module introduces the different editions of Win 10, and the differences between them. It describes the requirements and available options for installing Win 10 on a device. It also provides instructions on installing Win 10 and upgrading to it. This module discusses points to consider when deciding between an upgrade or migration to Win 10, and the supported upgrade paths from older versions of the Windows operating system.

Lessons

- Installing Win 10

- Upgrading to Win 10

Lab : Installing Win 10

- Upgrading Windows 7 to Win 10
- Migrating User Settings

Module 3: Configuring Your Device

This module explains how to configure Win 10 by using tools such as the Settings app, Control Panel, Windows PowerShell, Remote Server Administration Tools (RSAT) and Group Policy Objects (GPOs). It describes the different types of user accounts, and the benefits of using a Microsoft account. This module also describes Microsoft OneDrive, and how it integrates with Win 10.

Lessons

- Overview of Tools You Can Use to Configure Win 10
- Common Configuration Options
- Managing User Accounts
- Using OneDrive

Lab : Configuring Win 10

- Using the Settings App
- Using Control Panel
- Using Windows PowerShell
- Using GPOs

Lab : Synchronizing Settings with OneDrive

- Connecting a Microsoft Account
- Synchronizing Settings between Devices

Module 4: Configuring Network Connectivity

This module explains the use of tools such as the Settings app, Network and Sharing Center, and Windows PowerShell to configure network settings. It describes the differences between IPv4 and IPv6 settings, and the benefits of IPv6. It also describes name resolution and provides an overview of the Domain Name System (DNS) service. This module describes the configuration of wireless connectivity in Win 10, and explains remote access methods available in Win 10, such as Virtual Private Networks (VPNs), DirectAccess, and Remote Desktop.

Lessons

- Configuring IP Network Connectivity
- Implementing Name Resolution
- Implementing Wireless Network Connectivity
- Overview of Remote Access

Lab : Configuring Network Connectivity

- Verify and Test IPv4 Settings
- Configuring Automatic IPv4 Settings
- Configuring and Testing Name Resolution

Module 5: Managing Storage

This module provides an overview of storage options, including hard disks, server-based storage, and virtual hard disks. It describes network storage options, including network-attached storage (NAS) and storage area networks (SANs), and cloud-based storage options, such as OneDrive and Microsoft Azure Storage. Additionally, module 5 describes the management and maintenance of disks, partitions, and volumes, and the configuration and use of the Storage Spaces feature.

Lessons

- Overview of Storage Options
- Managing Disks, Partitions, and Volumes
- Maintaining Disks and Volumes
- Managing Storage Spaces

Lab : Managing Storage

- Adding a Disk
- Creating a Simple Volume
- Compressing a Folder
- Enabling Disk Quotas

- Creating a Storage Space

Module 6: Managing Files and Printers

This module provides an overview of the file systems supported by Win 10. It explains how to configure file permissions, the effect of file permissions, how explicit and inherited permissions work, and how to include user and device claims in access permissions. This module also explains how to share folders, the tools to use for sharing a folder, and the effective permissions when a user tries to access data in a shared folder that is protected by file permissions. The last lesson in the module describes how to add and share a printer, and how to manage client and server side printing.

Lessons

- Overview of File Systems
- Configuring and Managing File Access
- Configuring and Managing Shared Folders
- Work Folders
- Managing Printers

Lab : Configuring and Managing Permissions and Shares

- Creating, Managing, and Sharing a Folder
- Using Conditions to Control Access and Effective Permissions

Lab : Configuring and Using Work Folders

- Configuring Work Folders

Lab : Installing and Managing a Printer

- Managing and Using a Printer

Module 7: Managing Apps in Win 10

This module describes how to install and configure desktop apps and Windows Store apps in Win 10. It explains how to install apps manually and automatically, and how to use Microsoft System Center Configuration Manager and Microsoft Intune to deploy apps. Additionally, it describes the Windows Store and the way in which you can manage access to it. Lastly, module 7 describes the Internet Explorer 11 and Edge browsers, and explains how to configure and manage both browsers.

Lessons

- Overview of Providing Apps to Users
- The Windows Store
- Web Browsers

Lab : Installing and Updating Apps from the Windows Store

- Sideloaded an App
- Signing In with a Microsoft Account
- Installing and Updating Windows Store Apps

Lab : Configuring Win 10 Web Browsers

- Configuring and Using Microsoft Edge
- Configuring and Using Internet Explorer

Module 8: Managing Data Security

This module explains how the technologies available with Win 10 work together to protect against data-related security threats. It provides an overview of these threats, and discusses possible mitigations and best practices for dealing with them. It describes defense-in-depth and Encrypting File System (EFS), and how you can use those methods to counter security threats. Additionally, module 8 describes how to configure, administer, and monitor BitLocker drive encryption.

Lessons

- Overview of Data-Related Security Threats
- Securing Data with EFS
- Implementing and Managing BitLocker

Lab : Managing Data Security

- Using EFS
- Using Bitlocker

Module 9: Managing Device Security

This module explains how to mitigate security threats with the use of Security Compliance Manager, Enhanced Mitigation Experience Toolkit, and security settings in GPOs. It also describes User Account

Control (UAC), and how to configure it. This module also explains the use of AppLocker to configure application usage and restrictions.

Lessons

- Using Security Settings to Mitigate Threats
- Configuring UAC
- Configuring Application Restrictions

Lab : Managing Device Security

- Creating Security Policies
- Testing Security Policies
- Configuring UAC Prompts

Module 10: Managing Network Security

This module describes common network-related security threats, and describes options to mitigate them. It describes Windows Firewall, IPsec connection security rules, and Windows Defender, and how to configure these tools to manage network security.

Lessons

- Overview of Network-Related Security Threats
- Windows Firewall
- Connection Security Rules
- Windows Defender

Lab : Managing Network Security

- Creating and Testing Inbound Rules
- Creating and Testing Outbound Rules
- Creating and Testing Connection Security Rules
- Configuring Windows Defender

Module 11: Troubleshooting and Recovery

This module describes device drivers, and how to use the Device Manager to view, configure, update, and roll back device drivers. It explains file-recovery methods in Win 10, such as Backup and Restore, File History, and Previous Versions. This module also explains features such as System Restore, Startup Recovery, and System Image Recovery, and describes how to use restore points to roll back device configuration.

Lessons

- Managing Devices and Drivers
- Recovering Files
- Recovering Devices

Lab : Troubleshooting and Recovery

- Managing Device Drivers
- Using File History to Recover Files
- Using Previous Versions to Recover Files
- Recovering a Device with a Restore Point
- Using the Advanced Start-up Options to Recover a Device

Module 12: Maintaining Win 10

This module describes Windows Update, and Windows Update for Business, and how to configure settings for updates. It describes how to use Windows Server Update Services (WSUS), Configuration Manager, or Intune to distribute updates within organizations. This module also explains how to use the Action Center, Event Viewer, and Performance Monitor in Win 10.

Lessons

- Updating Windows
- Monitoring Win 10
- Optimizing Performance

Lab : Maintaining Win 10

- Configuring Updates for a Single Device
- Configuring Updates with GPOs
- Configuring Updates with GPOs
- Monitoring Reliability and Performance

Supporting and Troubleshooting Win 10

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 Win 10 fundamentals, high level architecture and often used troubleshooting tools.

Lessons

- Overview of Win 10
- Introduction to the EDST Job Role
- Overview of the Troubleshooting Steps
- Troubleshooting Tools

Lab : Implementing a Troubleshooting Methodology

- Implementing a Troubleshooting Methodology

Lab : Using Troubleshooting Tools

- Using Troubleshooting Tools

Module 2: Troubleshooting Startup Issues

This module describes how to identify and troubleshoot issues that affect the Win 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 Win 10 advanced troubleshooting tools, collectively known as the Windows Recovery Environment (Windows RE).

Lessons

- Overview of the Win 10 Startup Recovery Environment
- Troubleshooting Startup Settings
- Troubleshooting Operating System Services Issues
- Recovering BitLocker-Protected Drives

Lab : Troubleshooting Startup Issues

- Resolving a Startup Issue (1)
- Resolving a Startup Issue (2)

Lab : Recovering BitLocker-Encrypted Drives

- Recovering a BitLocker-Encrypted Drive
- Creating a New BitLocker Password

Module 3: Troubleshooting Hardware and Device Drivers

This module explains how to support users that utilize a multitude of devices that run Win 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 Win 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

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.

Lessons

- Using Remote Desktop

- Using Remote Assistance
- Remoting with Windows PowerShell

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

- Using Remote Desktop
- Using Remote Assistance

Lab : Troubleshooting Remote Computer by Using Windows PowerShell

- Using Windows PowerShell Remoting

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.

Lessons

- Determining Network Settings
- Troubleshooting Network Connectivity
- Troubleshooting Name Resolution

Lab : Resolving Network Connectivity Issues

- Resolving a Network Problem (1)
- Resolving a Network Problem (2)
- Troubleshooting a Wireless Network

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 Issues with Group Policy Application

- Resolving Group Policy Application (1)
- Resolving Group Policy Application (2)
- Resolving Group Policy Application (3)

Lab : Resolving Issues with Group Policy

- Resolving Group Policy Application (1)

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.

Lessons

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

Lab : Troubleshooting Sign in Problems

- Resolving Sign-In Issue 1
- Resolving Sign-In Issue 2

Lab : Troubleshooting the Application of User Settings

- Resolving Folder Redirection Issue

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.

Lessons

- Troubleshooting VPN Connectivity Issues
- Troubleshooting DirectAccess

Lab : Troubleshooting VPN Connectivity

- Troubleshoot VPN Connectivity Issue 1
- Troubleshoot VPN Connectivity Issue 2

Lab : Configuring and Troubleshooting DirectAccess

- Prepare the DirectAccess Implementation
- Configuring and Verifying Client-Side Settings for DirectAccess

- Troubleshooting 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.

Lessons

- Troubleshooting File Permissions Issues
- Recovering Files Encrypted by EFS
- Troubleshooting Printer Access Issues

Lab : Troubleshooting File Access Issues

- Resolving a File Access Issue (1)
- Resolving a File Access Issue (2)
- Resolving a File-Access Issue (3)

Lab : Troubleshooting Access to Encrypted Files

- Encrypting and Recovering Access to Encrypted Files

Lab : Troubleshooting Printer Issues

- Resolving a Printer Access Issue (1)
- Resolving a Printer Access Issue (2)

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.

Lessons

- Configuring and Troubleshooting Device Registration
- Configuring and Troubleshooting Work Folders
- Configuring and Troubleshooting OneDrive Access

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

- Troubleshooting Device Registration
- Troubleshooting Work Folders 1
- Troubleshooting Work Folders 2
- Troubleshooting OneDrive for Business

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.

Lessons

- Troubleshooting Desktop App Installation Issues
- Troubleshooting Desktop Apps
- Managing Windows Store Apps
- 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

Module 12: Maintaining Win 10

This module discusses how to provide for the ongoing maintenance of Win 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

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 Win 10 computer.

Lessons

- File Recovery in Win 10
- 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
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