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6292/6294: Installing & Managing Windows 7 Combo

Length – 6 days

Course 6292 Outline

About this Course

This instructor-led course is intended for IT professionals who are interested in expanding their knowledge base and technical skills about Windows 7 Client. In this course, students learn how to install, upgrade, and migrate to Windows 7 client. Students then configure Windows 7 client for network connectivity, security, maintenance, and mobile computing. This course helps students prepare for the Exam 70-680, TS: Windows 7, Configuring.

At Course Completion

After completing this course, students will be able to:

- Perform a clean installation of Windows 7, upgrade to Windows 7, and migrate user-related data and settings from an earlier version of Windows.

- Configure disks, partitions, volumes, and device drivers to enable a Windows 7 client computer.

- Configure file access and printers on a Windows 7 client computer.

- Configure network connectivity on a Windows 7 client computer.

- Configure wireless network connectivity on a Windows 7 client computer.

- Secure Windows 7 client desktop computers.

- Optimize and maintain the performance and reliability of a Windows 7 client computer.

- Configure mobile computing and remote access settings for a Windows 7 client computer.

Prerequisites

Before attending this course, students must have:

- Experience installing PC hardware and devices.

- Basic understanding of TCP/IP and networking concepts.

- Basic Windows and Active Directory knowledge.

- The skills to map network file shares.

- Experience working from a command prompt.

- Basic knowledge of the fundamentals of applications. For example, how client computer applications communicate with the server.

- Basic understanding of security concepts such as authentication and authorization.

- An understanding of the fundamental principles of using printers.



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Course Outline

Module 1: Installing, Upgrading, and Migrating to Windows 7 This module explains how to install, upgrade and migrate to Windows 7. It also describes the key features, editions, and hardware requirements of Windows 7. **Lessons**

- Preparing to Install Windows 7
- Performing a Clean Installation of Windows 7
- Upgrading and Migrating to Windows 7
- Performing Image-based Installation of Windows 7
- Configuring Application Compatibility

Lab : Installing and Configuring Windows 7

- Migrating Settings by using Windows Easy Transfer
- Configuring a Reference Image of Windows 7
- Configuring a Reference Image

After completing this module, students will be able to:

- Describe the key features, editions, and hardware requirements of Windows 7.
- Perform a clean installation of Windows 7
- Upgrade and Migrate to Windows 7 from an earlier version of Windows.
- Perform an image-based installation of Windows 7
- Resolve common application compatibility issues.

Module 2: Configuring Disks and Device Drivers This module examines how to configure disks, partitions, volumes, and device drivers to enable Windows 7 to function as desired. **Lessons**

- Partitioning Disks in Windows 7
- Managing Disk Volumes
- Maintaining Disks in Windows 7
- Installing and Configuring Device Drivers

Lab : Configuring Disks and Device Drivers

- Configuring Disks
- Configuring Disk Quotas (Optional)
- Updating a Device Driver



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After completing this module, students will be able to:

- Configure disk partitions on a Windows 7 client computer
- Create and manage disk volumes
- Manage file system fragmentation and disk quotas
- Install and configure device drivers

Module 3: Configuring File Access and Printers on Windows 7 Client Computers This module explains how to manage access to shared folders and printers on a computer running Windows 7. Specifically, it describes how to share and secure folders, configure folder compression, and how to install, configure, and administer printing. **Lessons**

- Overview of Authentication and Authorization
- Managing File Access in Windows 7
- Managing Shared Folders
- Configuring File Compression
- Managing Printing

Lab : Configuring File Access and Printers on Windows 7 Client Computers

- Create and Configure a Public Shared Folder for all Users
- Configuring Shared Access to Files for Specific Users
- Creating and Sharing a Printer

After completing this module, students will be able to:

- Describe authentication and authorization
- Manage file access on a Windows 7 client computer
- Create and manage shared folders
- Configure file compression
- Install, configure, and administer printers

Module 4: Configuring Network Connectivity This module explains both IPv4 and IPv6 network connectivity. It also describes how to implement automatic IP Address Allocation and troubleshoot network connectivity. **Lessons**

- Configuring IPv4 Network Connectivity
- Configuring IPv6 Network Connectivity
- Implementing Automatic IP Address Allocation
- Overview of Name Resolution
- Troubleshooting Network Issues



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Lab : Configuring Network Connectivity

- Configuring IPv4 Addressing
- Configuring IPv6 Addressing
- Troubleshooting Network Connectivity

After completing this module, students will be able to:

- Configure IPv4 network connectivity.
- Configure IPv6 network connectivity.
- Implement automatic IP address allocation.
- Troubleshoot common network related issues by using the tools available in Windows 7.

Module 5: Configuring Wireless Network Connections This module describes key wireless network technologies and how to configure wireless network components and the Windows 7 elements that are necessary to access wireless networks.

Lessons

- Overview of Wireless Networks
- Configuring a Wireless Network

Lab : Configuring Wireless Network Connections

- Determining the appropriate configuration for a wireless network
- Troubleshooting Wireless Connectivity

After completing this module, students will be able to:

- Describe the standards and technologies related to wireless network connections.
- Configure a wireless network connection.

Module 6: Securing Windows 7 Desktops This module describes how to make a Windows 7 computer more secure while ensuring usability is not sacrificed in the process. Specifically, it describes Windows Firewall, User Account Control, Windows Defender, and Security in Internet Explorer 8. **Lessons**

- Overview of Security Management in Windows 7
- Securing a Windows 7 Client Computer by Using Local Security Policy Settings
- Securing Data by Using EFS and BitLocker
- Configuring Application Restrictions
- Configuring User Account Control
- Configuring Windows Firewall
- Configuring Security Settings in Internet Explorer 8



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Configuring Windows Defender

Lab : Configuring UAC, Local Security Policies, EFS, and AppLocker

Using Action Center
Configuring Local Security Policies
Encrypting Data
Configuring AppLocker

Lab : Configuring Windows Firewall, Internet Explorer 8 Security Settings, and Windows Defender

Configuring Windows Firewall
Configuring Internet Explorer 8 Security
Configuring Windows Defender

After completing this module, students will be able to:

- Explain the security management features of Windows 7.
- Configure local security policy settings on a Windows 7 client computer.
- Secure data by using EFS and BitLocker.
- Configure application restrictions by using AppLocker.
- Configure user account control settings.
- Configure Windows Firewall on a Windows 7 client computer.
- Configure security-related settings in Internet Explorer to help protect a Windows 7 client computer that is connected to the Internet.
- Configure Windows Defender to help protect a Windows 7 client computer against malicious software.

Module 7: Optimizing and Maintaining Windows 7 Client Computers This module describes how to use the monitoring and configuration tools to obtain information about Windows 7 performance and how to troubleshoot performance and reliability problems. **Lessons**

Maintaining Performance by Using the Windows 7 Performance Tools
Maintaining Reliability by Using the Windows 7 Diagnostic Tools
Backing Up and Restoring Data by Using Windows Backup
Restoring a Windows 7 System by Using System Restore Points
Configuring Windows Update



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Lab : Optimizing and Maintaining Windows 7 Client Computers

- Monitoring System Performance
- Backing Up and Restoring Data
- Configuring System Restore Points
- Configuring Windows Update

After completing this module, students will be able to:

- Maintain the performance of a Windows 7 client computer by using performance management tools.
- Maintain reliability of a Windows 7 client computer by using the diagnostic tools.
- Back up and restore data on a Windows 7 client computer by using Windows Backup.
- Restore a Windows 7 system by using system restore points.
- Configure Windows Update on a Windows 7 client computer.

Module 8: Configuring Mobile Computing and Remote Access in Windows 7 This module explains how to configure mobile devices and remote access. It also discusses DirectAccess and BranchCache which are new for Windows 7. **Lessons**

- Configuring Mobile Computer and Device Settings
- Configuring Remote Desktop and Remote Assistance for Remote Access
- Configuring DirectAccess for Remote Access
- Configuring BranchCache for Remote Access

Lab : Configuring Mobile Computing and Remote Access in Windows 7

- Creating a Sync Partnership
- Configuring Power Options
- Enabling Remote Desktop
- Enabling BranchCache

After completing this module, students will be able to:

- Configure mobile computer and device settings on a Windows 7 client computer.
- Configure Remote Desktop and Remote Assistance on a Windows 7 client computer.
- Configure DirectAccess on a Windows 7 client computer for remote access.
- Configure BranchCache on a branch office Windows 7 client computer.



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Course 6294 Outline

About this Course

This five-day instructor-led course is intended for desktop administrators who want to specialize in desktop deployment, configuration, and management . In this course, students will learn how to plan and deploy Windows 7 desktops in large organizations . They will also learn how to design, configure, and manage the Windows 7 client environment. This course helps students prepare for the Exam 70-686, Pro: Windows 7, Enterprise Desktop Administrator.

At Course Completion

After completing this course, students will be able to:

- Prepare to deploy Windows 7 business desktops.
- Assess and resolve application compatibility issues with Windows 7.
- Determine the most appropriate method to deploy Windows 7 based upon specific business requirements.
- Design a standard Windows 7 image by assessing and evaluating the business requirements.
- Deploy Windows 7 by using WAIK.
- Deploy Windows 7 by using WDS.
- Deploy Windows 7 by using Lite Touch Installation.
- Deploy Windows 7 by using Zero Touch Installation.
- Migrate user state by using Windows Easy Transfer and User State Migration Tool 4.0.
- Design, configure, and manage the Windows 7 client environment.
- Plan and deploy applications and updates to Windows 7 client computers.
- Plan and deploy Windows 7 by using LTI. (Lab-Only Module)

Prerequisites

Before attending this course, students must have:

- A solid understanding of TCP/IP and networking concepts.
- A solid Windows and Active Directory background. For example, domain user accounts, domain vs. local user accounts, user profiles, and group membership.
- A good understanding of scripts and batch files.
- A solid understanding of security concepts such as authentication and authorization.
- Performed a clean installation of Windows 7, Upgrade to Windows 7, and migrate user-related data and settings from Windows XP.
- Configured disks, partitions, volumes, and device drivers to enable Windows 7 to function as desired.
- Experience configuring and troubleshooting permissions and other settings to allow access to resources and applications on Windows 7 Systems.
- Experience configuring settings to enable network connectivity.
- Experience configuring and troubleshooting a wireless network connection.



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Experience configuring and troubleshooting Windows 7 security.

Configure mobile computers and devices.

Familiarity with the client administration capabilities of Windows Server and familiar with management tools such as the System Center suite of products.

Familiarity with deployment, packaging, and imaging tools.

The ability to work in a team/virtual team

Course Outline

Module 1: Preparing to Deploy Windows 7 Business Desktops This module helps you plan and perform effective preparation tasks for deploying Windows 7 clients. It begins by discussing client, hardware, and deployment lifecycles. It also discusses how to assess existing computing environments and licensing. **Lessons**

Overview of the Desktop Lifecycle

Desktop Deployment: Challenges and Considerations

Tools and Technologies Used in the Desktop Deployment Lifecycle

Assessing the Current Computing Environment for Deploying Windows 7

Designing Windows Activation

Lab : Assessing the Computing Environment by Using the Microsoft Assessment and Planning Toolkit

Assessing the Computing Environment by Using Microsoft Assessment and Planning Toolkit

Lab : Recommending an Activation Strategy

Review the Activation Scenario

After completing this module, students will be able to:

Describe the client, hardware, and desktop deployment lifecycles.

Explain the challenges involved and considerations for deploying desktops.

Describe the tools and technologies that are used in the desktop deployment lifecycle.

Assess the current computing environment to determine the feasibility of deploying Windows 7.

Design the licensing and activation strategy for a given business scenario.



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Module 2: Assessing Application Compatibility in Windows 7 This module describes the process for addressing common application compatibility issues experienced during a typical operating system deployment. It also explains how to use the Microsoft Application Compatibility Toolkit (ACT) to help inventory, analyze, and mitigate application compatibility issues. **Lessons**

- Overview of Application Compatibility
- Assessing and Resolving Application Compatibility Issues by Using ACT 5.5

Lab : Evaluating Application Compatibility Using the Microsoft Application Compatibility Toolkit

- Installing and Configuring ACT
- Collecting Application Inventory
- Organizing the Application Inventory
- Analyzing Application Inventory Results

Lab : Creating Application Compatibility Fixes

- Identifying Application Compatibility Issues
- Mitigating Application Issues

After completing this module, students will be able to:

- Describe the process and guidelines for resolving common application compatibility issues during an operating system deployment.
- Inventory, analyze, and mitigate application compatibility issues by using ACT 5.5.

Module 3: Evaluating Windows 7 Deployment Methods This module discusses different deployment scenarios and methods that are available when deploying Windows 7. It also discusses various tools and technologies to use in the different scenarios, and considerations for selecting a deployment scenario and method. **Lessons**

- Evaluating In-Place Deployment
- Evaluating Side-by-Side Deployment
- Evaluating Lite Touch Deployment Method
- Evaluating Zero Touch Deployment Method

Lab : Determining the Windows 7 Deployment Method

- Determining Windows 7 Deployment Methods

After completing this module, students will be able to:

- Determine the feasibility of installing Windows 7 by using in-place deployment.
- Determine the feasibility of installing Windows 7 by using side-by-side deployment.



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Determine the feasibility of using the Lite Touch deployment method for deploying Windows 7 in a given business scenario.

Determine the feasibility of using the Zero Touch deployment method for deploying Windows 7 in a given business scenario.

Module 4: Designing Standard Windows 7 Images This module, explains the underlying architecture of the computer imaging system that can be used to create and deploy a custom image of a Windows 7 desktop. It also discusses the different phases of the imaging process, and how to determine imaging strategy and image servicing opportunities in Windows 7. **Lessons**

Overview of Windows 7 Installation Architecture

Overview of the Imaging Process

Determining the Image Strategy

Selecting the Image Servicing Methods

Lab : Determining the Windows 7 Imaging Strategy

Determining the Windows 7 Image Strategy

After completing this module, students will be able to:

Explain the Windows 7 installation architecture.

Explain the different phases of the imaging process.

Determine the appropriate Windows 7 imaging strategy based on specific business requirements.

Select appropriate image servicing methods to service Windows 7 images based on specific business requirements.

Module 5: Deploying Windows 7 by Using WAIK This module explains the underlying computer imaging architecture of Windows AIK 2.0, which can be used to create and deploy a custom Windows 7 desktop image. **Lessons**

Overview of WAIK 2.0

Building a Reference Windows 7 Image by Using Windows SIM and Sysprep

Managing the Windows Preinstallation Environment

Capturing, Applying, and Servicing a Windows 7 Image

Lab : Installing WAIK

Install the Windows Automated Installation Kit

Identify Resources and Tools included with the Windows Automated Installation Kit



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Lab : Building a Reference Image Using Windows SIM and Sysprep

Building a Custom Answer File by Using Windows SIM
Installing a Reference Computer using a Custom Answer File
Generalizing a Reference Computer by Using Sysprep

Lab : Creating Windows PE Boot Media

Adding Packages and Drivers to Windows PE
Creating a Bootable Windows PE ISO Image
Starting the Windows PE Operating System Environment

Lab : Capturing and Applying a Windows 7 Image Using ImageX

Capturing an Image Using ImageX
Apply an Image Using ImageX

Lab : Servicing Images by Using DISM

Servicing a Reference image using DISM

After completing this module, students will be able to:

Explain the key features and functionality provided by WAIK 2.0.
Build a reference Windows 7 image by using Windows SIM and Sysprep.
Create a custom Windows PE bootable image.
Capture, apply, and service a Windows 7 image.

Module 6: Deploying Windows 7 by Using Windows Deployment Services This module describes how WDS can be used to deploy custom system images to client computers located within the network infrastructure. **Lessons**

Overview of WDS
Designing and Configuring WDS for Windows 7 Deployment

Lab : Deploying Windows 7 by Using Windows Deployment Services

Designing the WDS Environment
Installing and Configuring the WDS Server Role
Adding Boot and Install Images to WDS
Provisioning Drivers by Using WDS
Deploying a Desktop Operating System Using WDS



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After completing this module, students will be able to:

- Explain how WDS can be used to deploy Windows 7.
- Design and configure WDS for Windows 7 deployment.

Module 7: Deploying Windows 7 by Using Lite Touch Installation This module describes how to design the Lite Touch Installation (LTI) environment, and provides you with an overview of the techniques that you can use to build and deploy Windows 7 using the MDT and the LTI scenario. **Lessons**

- Designing the Lite Touch Installation Environment
- Implementing MDT 2010 for Deploying Windows 7

Lab : Planning and Configuring MDT 2010

- Planning the MDT Lite Touch Environment
- Installing MDT 2010 and Additional Component Files
- Configuring the Deployment Share
- Creating a Task Sequence

Lab : Deploying Windows 7 by Using Lite Touch Installation

- Updating the Deployment Share to Generate Windows PE Media
- Installing Windows 7 Using Lite Touch Installation

After completing this module, students will be able to:

- Design the Lite Touch installation environment for deploying Windows 7.
- Perform Lite Touch installation of Windows 7 by using MDT 2010.

Module 8: Deploying Windows 7 by Using Zero Touch Installation This module describes the necessary prerequisites and procedures for deploying the Windows 7 operating system using Zero Touch Installation methodology. **Lessons**

- Designing the Zero Touch Installation Environment
- Performing Zero-touch Installation of Windows 7 by using MDT 2010 and Configuration Manager 2007

Lab : Deploying Windows 7 by Using Zero Touch Installation

- Planning the Zero Touch Installation Environment
- Preparing the Zero Touch Installation Environment
- Configuring Deployment Packages and System Images
- Configuring and Advertising a Client Task Sequence



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After completing this module, students will be able to:

Design the Zero Touch installation environment for deploying Windows 7.

Perform the Zero Touch installation of Windows 7 by using MDT 2010 and Configuration Manager 2007.

Module 9: Migrating User State by Using WET and USMT 4.0 This module explains user state migration, and how to use tools, such as Windows Easy Transfer and the Microsoft Windows User State Migration Tool (USMT), in various migration scenarios. **Lessons**

Overview of User State Migration

Overview of USMT 4.0

Planning User State Migration (USMT 4.0)

Migrating User State by Using USMT 4.0

Lab : Migrating User State by Using Windows Easy Transfer

Preparing the Window Easy Transfer Source Files

Capturing User State Information from a Source Computer

Loading User State Information to a Target Computer

Lab : Migrating User State by Using the User State Migration Tool 4.0

Planning for the User State Migration

Creating USMT Migration Scripts

Capturing and Restoring User State by Using USMT

Performing a Hard-Link Migration

Lab : Migrating User State by Using State using Hard Link Migration

Performing a Hard-Link Migration

After completing this module, students will be able to:

Migrate user state by using WET.

Explain how USMT 4.0 can be used to migrate user state.

Plan for user state migration.

Migrate user state by using USMT 4.0.



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Module 10: Designing, Configuring, and Managing the Client Environment This module examines how to design, configure, and manage Windows 7 client configurations. Specifically, it discusses Group Policy, Internet Explorer, and system security settings. **Lessons**

- Overview of Planning Client Configuration
- Designing and Configuring Standard System Settings
- Designing and Configuring Internet Explorer Settings
- Designing and Configuring Security Settings
- Designing and Implementing Group Policy
- Troubleshooting Group Policy

Lab : Designing and Configuring the Client Environment

- Designing a Client Environment
- Implementing a Client Configuration

Lab : Troubleshooting GPO Issues

- Resolving a GPO Application Problem

After completing this module, students will be able to:

- Determine the method for implementing the client configuration.
- Design and configure standard system settings on Windows 7 client computers.
- Design and configure Internet Explorer settings on Windows 7 client computers.
- Design and configure security settings on Windows 7 client computers.
- Design and implement group policy for configuring Windows 7 client computers.
- Troubleshoot group policy issues.

Module 11: Planning and Deploying Applications and Updates to Windows 7 Clients This module discusses the implications of deploying applications to Windows 7 clients including Microsoft Office 2007. It also discusses the use of Windows Server Update Services (WSUS). **Lessons**

- Determining the Application Deployment Method
- Deploying the 2007 Microsoft Office System
- Planning and Configuring Desktop Updates by Using WSUS

Lab : Determining the Application Deployment Method

- Determining the Application Deployment Method



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Lab : Customizing the Microsoft Office Professional Plus 2007 Installation

Configuring the Setup Category
Configuring the Features Category
Installing Microsoft Office Professional Plus By Using the Setup Customization File

Lab : Planning and Managing Updates by Using WSUS

Planning Automatic Updates Settings
Configuring Automatic Updates Settings by Using Group Policy
Approving and Deploying an Update by Using WSUS

After completing this module, students will be able to:

Determine an appropriate application deployment method based upon business requirements.
Customize and deploy Office 2007 based on business requirements.
Plan and configure desktop updates by using WSUS.

Module 12: Planning and Deploying Windows 7 by Using LTI This module is a comprehensive lab that gives the students an opportunity to perform an end-to-end deployment of Windows 7 by using the LTI. **Lab : Planning an End-to-End Windows 7 LTI Deployment**

Planning the MDT Lite Touch Environment

Lab : Deploying Windows 7 using the LTI Deployment Plan

Performing a Network Assessment
Configuring MDT 2010 for an LTI Deployment
Configuring WDS for a PXE and Multicast Deployment
Configuring an MDT 2010 Deployment Share
Creating the Reference Computer
Preparing the Deployment Task Sequences
Performing an Upgrade on Target Computers

After completing this module, students will be able to:

Plan an end-to-end Windows 7 LTI deployment.
Deploy Windows 7 by using the LTI deployment plan.

Before attending this course, students must have:

A solid understanding of TCP/IP and networking concepts.



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A solid Windows and Active Directory background. For example, domain user accounts, domain vs. local user accounts, user profiles, and group membership.

A good understanding of scripts and batch files.

A solid understanding of security concepts such as authentication and authorization.

Performed a clean installation of Windows 7, Upgrade to Windows 7, and migrate user-related data and settings from Windows XP.

Configured disks, partitions, volumes, and device drivers to enable Windows 7 to function as desired.

Experience configuring and troubleshooting permissions and other settings to allow access to resources and applications on Windows 7 Systems.

Experience configuring settings to enable network connectivity.

Experience configuring and troubleshooting a wireless network connection.

Experience configuring and troubleshooting Windows 7 security.

Configure mobile computers and devices.

Familiarity with the client administration capabilities of Windows Server and familiar with management tools such as the System Center suite of products.

Familiarity with deployment, packaging, and imaging tools.

The ability to work in a team/virtual team

Trained and mentored others