

# Installing, Configuring, Troubleshooting, and Maintaining Windows Vista

Course GWE51170: Three days; Instructor-Led



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## Introduction

This three-day instructor-led course provides IT Professionals who work in enterprise organizations with the knowledge and skills to install, deploy, configure, secure, maintain, and troubleshoot Windows Vista. This advanced course is aimed at enterprise desktop support technicians who want to gain an in-depth knowledge of Windows Vista.

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## Audience

This audience includes experienced IT professionals who focus on a broad range of desktop operating system, desktop application, mobile device, networking, and hardware support issues. As working professionals, students must combine technical expertise, 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 to business and technical requirements and constraints.

Students will have used Windows XP SP2 and may have experience with Windows server operating systems.

At Course Completion

After completing this course, students will be able to:

- Install Windows Vista.
- Troubleshoot the startup process.
- Configure hardware and devices for Windows Vista-based computers.
- Configure networking for Windows Vista-based computers.
- Secure Windows Vista-based computers.
- Maintain and optimize Windows Vista-based computers.

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## Prerequisites

Before attending this course, students must:

- Be familiar with PC hardware and devices. For example, be able to look into the device manager and look for unsupported devices.
- Have fundamental knowledge of TCP/IP.
- Have fundamental knowledge of Windows and Active Directory directory service. For example, domain

user accounts, domain versus local user accounts, user profiles, and group membership.

- Be able to map network file shares. For example, be familiar with Universal Naming Convention paths and mapping local resources to servers and shares.
- Have experience of installing applications.
- Have experience of working from a command prompt. For example, authoring and editing batch files.
- Have experience of configuring basic input/output system options.
- Be familiar with reviewing support logs. Know that there is a chronology, sequential order, and severity.
- Have experience of supporting previous versions of the Windows operating system.
- Be familiar with an IT helpdesk ticketing system.
- Have experience of researching online and local knowledge bases. Basic knowledge of the fundamentals of applications. For example, client/server applications (how clients communicate with the server).

In addition, it is recommended, but not required, that students have completed:

- Deploying Windows Vista Business Desktops.

Important: This learning product will be most useful to people who intend to use their new skills and knowledge in their job immediately after training.

## **Module 1: Installing, Upgrading, and Deploying Windows Vista Course Outline**

This module starts by introducing the key features of the various editions of Windows Vista. There are a number of ways to install Windows Vista, but first you must verify that the hardware platform meets the requirements of the edition that you want to install, and you must plan any necessary upgrades.

In this module, you will learn how to install Windows Vista, and how to upgrade or migrate from earlier versions of the Windows operating system to Windows Vista Ultimate edition. You will also learn how to upgrade between the editions of the Windows Vista operating system.

This module introduces you to the imaging process and provides you with information that will help you to select the preferred image deployment method. This module also introduces you to the process of manually applying desktop images by using the deployment infrastructure. You can use this process to create computer images that can help you to reinstall or to rebuild computers in your organization.

### **Lessons**

- Introduction to Windows Vista
- Performing a Clean Installation of Windows Vista
- Upgrading and Migrating to Windows Vista from a Previous Version of Windows
- Upgrading Between Windows Vista Editions
- Windows Vista Desktop Deployment Infrastructure
- Preparing the Target Computer
- Obtaining and Applying a Desktop Image

### **Lab 1: Installing Windows Vista**

- Verifying hardware requirements
- Installing Windows Vista from DVD (simulation)

### **Lab 2: Upgrading to Windows Vista Ultimate**

- Upgrading from Windows XP to Windows Vista Ultimate (simulation)
- Upgrading from Windows Vista Business to Windows Vista Ultimate (simulation)

### **Lab 3: Applying Desktop Images**

- Booting to the Windows Pre-Installation Environment
- Applying an Image from the Network
- Verifying Desktop Image Deployment

After completing this module, students will be able to:

- Describe the Windows Vista operating system.
- Perform a clean installation of Windows Vista.
- Upgrade or migrate to Windows Vista from a previous version of Microsoft Windows.
- Upgrade or migrate between the editions of Windows Vista.
- Describe the deployment processes and technologies in Windows Vista and the components and tools that are available as part of Business Desktop Deployment 2007.
- Prepare a target computer.
- Determine the best method to obtain and apply a desktop image.

## **Module 2: Troubleshooting Windows Vista Startup**

### **Course Outline**

Developing and using a troubleshooting methodology will help you to quickly and easily diagnose and resolve computer-related problems. During this module, you discuss a troubleshooting methodology and identify the role of a troubleshooting methodology and the benefits it will bring to your organization. In this module, you learn how to identify and troubleshoot issues that affect the ability of the operating system to startup and how to identify the services that are running on the operating system. You also learn how to use the Windows Vista operating system advanced troubleshooting tools, collectively known as the Windows Recovery Environment (Windows RE).

### **Lessons**

- Overview of a Troubleshooting Methodology
- Overview of the Windows Vista Startup Process
- Troubleshooting the Windows Vista Startup Process with Windows RE
- Troubleshooting Operating System Services

### **Lab 1: Preparing for Remote Troubleshooting**

- Obtaining Information Remotely from Windows Vista
- Using the System Information Tool Remotely

### **Lab 2: Troubleshooting Windows Vista Startup Problems**

- Gathering System Information and Developing a Plan of Action
- Implementing the Proposed Plan of Action
- Clean Booting Windows Vista

After completing this module, students will be able to:

- Describe a troubleshooting methodology and identify its users and stages.
- Identify the available recovery options in Windows Vista.
- Determine the capabilities of each recovery option.
- Troubleshoot operating system services.

## **Module 3: Configuring and Troubleshooting Hardware and Devices**

### **Course Outline**

This module explains how to troubleshoot hardware failures. You will look at both physical hardware failures and failures associated with hardware device drivers. This module also discusses the improved print architecture in the Windows Vista operating system and the new Windows BitLocker™ Drive Encryption mechanism, which provides drive integrity and encryption for the hard disk of your computer.

### **Lessons**

- Installing and Configuring Windows Vista Device Drivers
- Overview of Troubleshooting Hardware
- Dealing with Physical Failures
- Dealing with Device Driver Failures
- Troubleshooting Printing in Windows Vista
- Troubleshooting BitLocker Protected Computers

### **Lab 1: Configuring Devices**

- Managing Device Drivers

### **Lab 2: Troubleshooting Hardware**

- Gathering Customer Information and Developing a Plan of Action
- Resolving a Printing Problem
- Checking for Signed Device Drivers

After completing this module, students will be able to:

- Install and configure Windows Vista device drivers.
- Identify basic types of hardware-related troubleshooting problems.
- Determine which problems are related to hardware failures.
- Determine which problems are caused by device drivers.
- Troubleshoot printing problems in Windows Vista.
- Identify recovery options for computers that are protected by BitLocker.

## **Module 4: Configuring and Troubleshooting Networking**

### **Course Outline**

In this module, you will see how to use the new Windows Vista tools to share and manage Windows Vista files. You will learn how to connect Windows Vista to a network, and how to configure and troubleshoot the Remote Access features of Windows Vista. The module also describes how to configure wireless networking and identifies the most likely cause of network problems in a number of given network scenarios.

### **Lessons**

- Sharing Data with Others
- Managing Windows Vista Files
- Configuring Network Connectivity
- Configuring Remote Access
- Networking Without Wires
- Connecting to a Wireless Network
- Determining Network Settings
- Troubleshooting Network Connections

### **Lab 1: Sharing Files by Using Windows Vista**

- Sharing Data with Others

- Managing Files

### **Lab 2: Configuring Remote Access**

- Configuring a VPN

### **Lab 3: Networking Mobile Computers**

- Configuring a Wireless Network
- Troubleshooting a Connection to a Wireless Network

### **Lab 4: Troubleshooting Networks**

- Gathering Customer Information
- Gathering Relevant Computer Information
- Resolving the Problem

After completing this module, students will be able to:

- Share data with others.
- Manage Windows Vista files.
- Configure network connectivity.
- Configure Remote Access.
- Configure networks without wires.
- Configure a connection to a wireless network.
- Determine the current network settings.
- Troubleshoot network connections.

### **Module 5: Configuring and Troubleshooting Security**

In this module you will learn how Windows Vista provides advanced network security to help counter the threats that exist in modern business and home network environments. Microsoft Windows Vista includes new and updated functionality, including User Account Control, Windows Defender, and Windows Firewall. This module will ensure that you understand how the new Windows Vista security features work so that you can quickly and effectively diagnose and fix any problems.

#### **Lessons**

- Overview of User Account Control
- Troubleshooting User Account Control
- Configuring Windows Defender in Windows Vista
- Configuring Windows Firewall Settings

#### **Lab 1: Configuring User Account Security**

- Requesting an Application to Run Elevated One Time
- Marking an Application to Always Run Elevated
- Configuring User Account Control Panel

#### **Lab 2: Configuring Network Security**

- Configuring Windows Defender
- Configuring Windows Firewall

#### **Lab 3: Troubleshooting Security-Related Issues**

- Gathering Customer and System Information and Developing a Plan of Action
- Implementing a Plan of Action

- Additional Security Checks

After completing this module, students will be able to:

- Configure Windows Vista User Account Control.
- Troubleshoot User Account Control.
- Configure Windows Defender in Windows Vista.
- Configure the Windows Firewall settings in Windows Vista.

## **Module 6: Maintaining and Optimizing Windows Vista Course Outline**

In this module, you will learn how to use monitoring and configuration tools to obtain information about Windows Vista performance, and how to troubleshoot performance and reliability problems.

This module introduces you to the new diagnostic tools in Windows Vista that will help you to pinpoint problems with memory, networking, and startup failures. You will also become familiar with Windows Update and how best to configure automatic update options that help to keep your computer secure and stable.

### **Lessons**

- Maintaining Performance by Using Windows Vista Performance Tools
- Optimizing Windows by Using Windows Vista Diagnostics Tools
- Configuring Windows Update

### **Lab 1: Maintaining and Optimizing Windows Vista**

- Monitoring General System Activity by Using Resource Overview
- Viewing System Stability by Using Reliability Monitor
- Configuring Windows Update
- Analyzing Collected Information and Identifying Probable Causes
- Implementing a Plan of Action
- Viewing and Interpreting Reports in Performance Monitor

After completing this module, students will be able to:

- Maintain performance by using Windows Vista performance tools.
- Optimize reliability by using Windows Vista diagnostic tools.
- Configure Windows Update.