EXAM 70-623

Supporting and Troubleshooting Applications on a Windows Vista Client for Consumer Support Technicians

Mega Guide

Prepare With Confidence

This PrepLogic Mega Guide was written by certified subject matter experts and published authors to provide you accurate, in-depth exam coverage. All exam objectives are covered in detail, giving you the knowledge and confidence you need to pass your exam.

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Abstract

The PrepLogic 70-623 "Windows Vista Consumer Support" Mega Guide has been designed from the ground up with the single purpose of providing you, the user, every piece of information necessary to pass your exam. In this short format, we at PrepLogic have done our best to place the most vital pieces of information, according to the publish Microsoft Objectives, in a short, direct, and effective format.

Keep in mind, this tool is not designed to be the sole source of knowledge for your certification preparation. Instead, this is a supplemental tool that should be used in conjunction with Video, Audio, and Practice exam training. Only after you have prepared yourself for the exam should you review this document, but when you are at that stage, it will place every piece of information you have reviewed in a clear, informed, and understandable perspective.

What to Know

The goal of the Vista Support Technician is to do precisely what it implies – Support Windows Vista. Accordingly, you need to have a great deal of experience with the operating system. Vista contains several different visual and operative modes, and thus you need to be familiar with the glass "Aero" interface, as well as the standard Vista interface. Additionally, you need to be familiar with Vista's new and improved features, such as User Account Control, administrator privileges, new account creation, and account management.

Bottom line, you don't want to be surprised if you're expecting to understand most of the various menu systems in Vista, in all their forms. As a general practice, PrepLogic recommends you spend at least 50 hours administrating, navigating, and understanding the aspects of Vista according to the published objectives.

Tips

It's a good practice to have both Vista and XP installed on a single box when you're looking over the new Vista material. This is because the differences in Vista will become much more obvious after you have gotten used to XP's classic look and feel. Furthermore, a good tip is to make sure that you know the NAME of every Vista feature, not just what it does or where it can be found. Microsoft likes to ask questions that make sure you know how every single menu is identified, not just how to use it.

Install and Upgrade Windows Vista

Evaluate Potential Upgrade Environments

This exam is designed for the consultant who is going to be working in the SOHO (Small Office/Home Office) environment. Assume the questions will be for supporting those people who are installing Vista on a single machine or a limited number of machines.

There are two methods of installing Vista: an in-place upgrade or a clean install. With the in-place upgrade, application files and settings are not lost. With a clean install, you begin by formatting the hard drive and applying a full installation of the operating system.

There are four versions of Windows Vista: Home Basic, Home Premium, Business and Ultimate. Older Windows versions that can be upgraded include Windows 2000 Professional and the XP suite. The following table shows which versions of Windows can be upgraded (U) and which versions require a clean installation (C).

	Home Basic	Home Premium	Business	Ultimate
XP Professional	C	C	U	U
XP Home	U	U	U	U
XP Media Center	C	U	C	U
XP Tablet	C	C	U	U
XP Professional x64	C	C	C	C
Windows 2000	C	C	C	C

Note that versions of Windows prior to Windows 2000 are not supported for an upgrade. If the version of Vista that you have chosen to install will result in a downgrade of functionality, you will have to do a clean install of the operating system, or create a separate partition for the Windows Vista installation.

Before upgrading to Vista, minimum hardware requirements must be met. Windows certifies hardware requirements at two levels: a **Windows Vista Capable PC** and **Windows Vista Premium Ready PC**. The Vista Premium Ready PC will be able to deliver Windows Aero or BitLocker Drive encryption.

The following table details the hardware requirements for each type of PC.

	Vista Capable	Vista Premium Ready	Minimum Requirements
Processor	At least 800 MHz	1 GHz (32-bit) 64 bit (x64)	800 MHz (32 bit) 64 bit (x64)
System Memory	512 MB	1GB	512 MB
GPU	DirectX 9 capable (WDDM Driver support recommended	Windows Aero capable DirectX9-class GPU that supports: WDDM Driver Pixel Shader 2.0 in hardware 32 bits per pixel Adequate Graphics memory	SVGA (800x600)
Graphics Memory		128 MB	
HDD		40 GB (minimum of 15 GB free)	20 GB (minimum of 15 GB free)
Optical Drive		DVD-ROM	CD-ROM
Other	Meets criteria for "Designed for Windows XP" or "Designed for Windows XP x64 logo"		

Prepare to Install Windows Vista

Before upgrading a computer running Windows XP SP2, Microsoft recommends to running the Windows Vista Upgrade Advisor. The upgrade advisor can be downloaded here.

Once the MSI file has been downloaded, double-clicking on it will start the installation process. First, you are asked to accept a license agreement and then you are asked where you would like the Advisor installed. The next choice you have is whether to put a shortcut on the desktop. Once the advisor is installed and run, it will look for updates. The first screen allows you to start the scan. You are warned to attach any devices you routinely use, such as printers, scanners and external hard drives.

While you are waiting for the advisor to complete its scan, Microsoft gives you the ability to compare Vista editions.

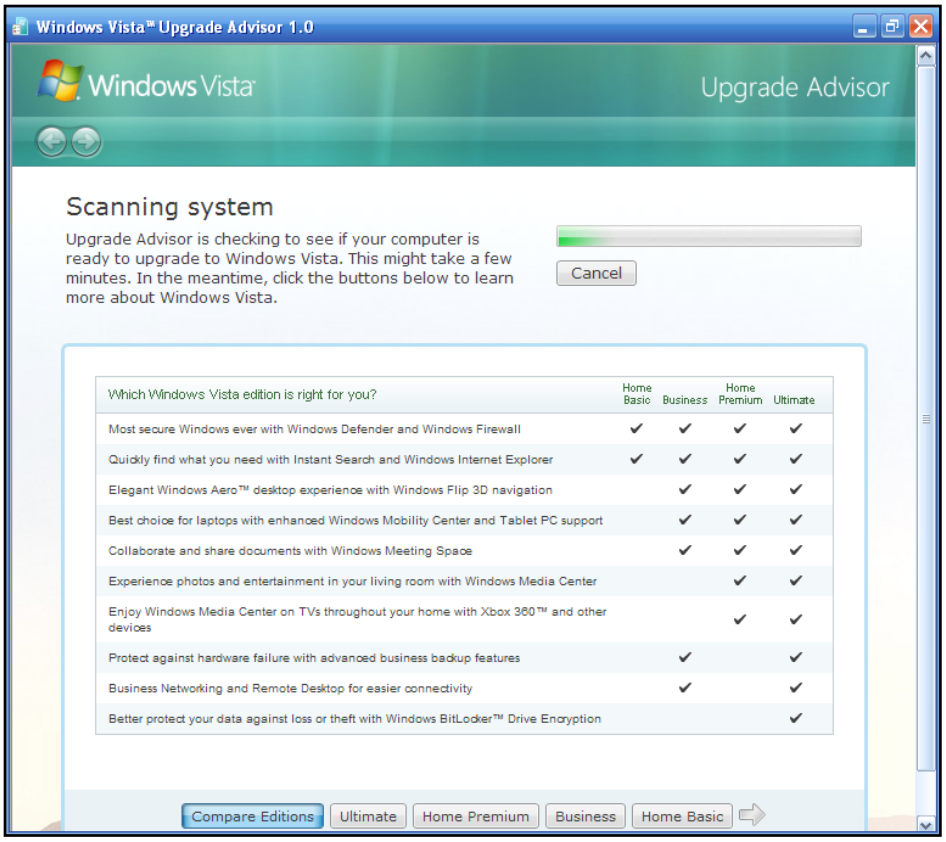

Figure 1-1: Windows Vista Upgrade Advisor

When the advisor has completed its scan, it will suggest the version of Windows Vista that best suits your hardware configuration. It will then give you the opportunity to check details on problem devices or software issues that need to be addressed before the system is upgraded.

The advisor will show devices that have known compatibility issues:

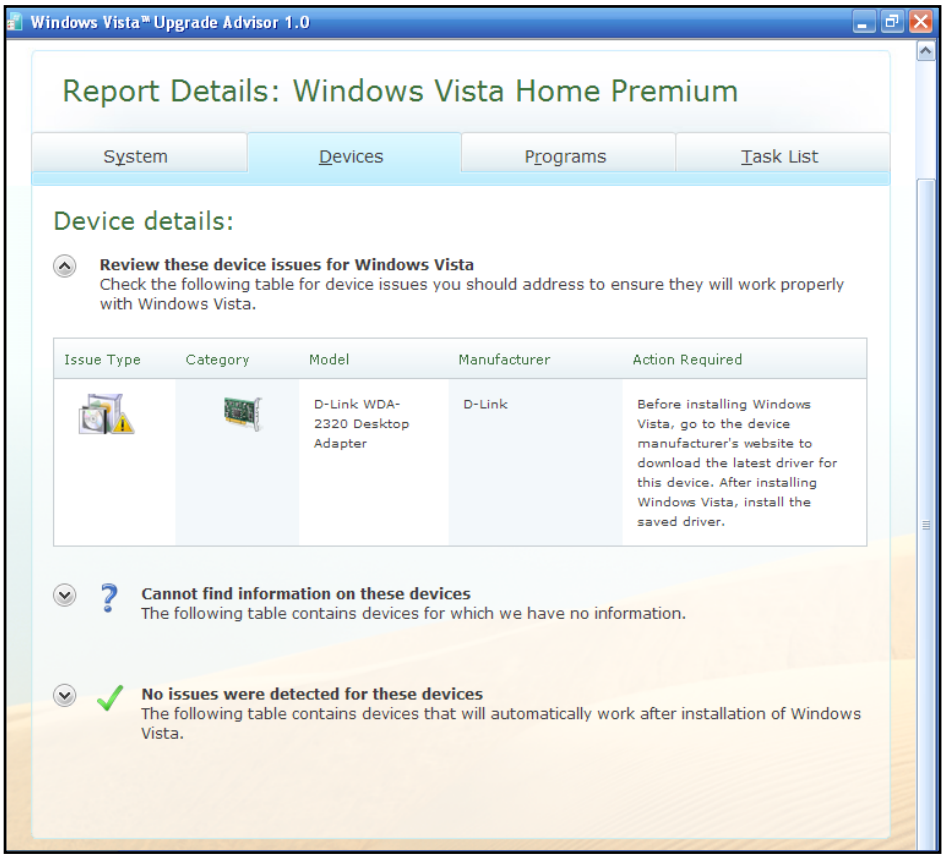

Figure 1-2: Windows Vista Upgrade Advisor Device Compatibility Report

You can then check the devices the Advisor could not find information about:

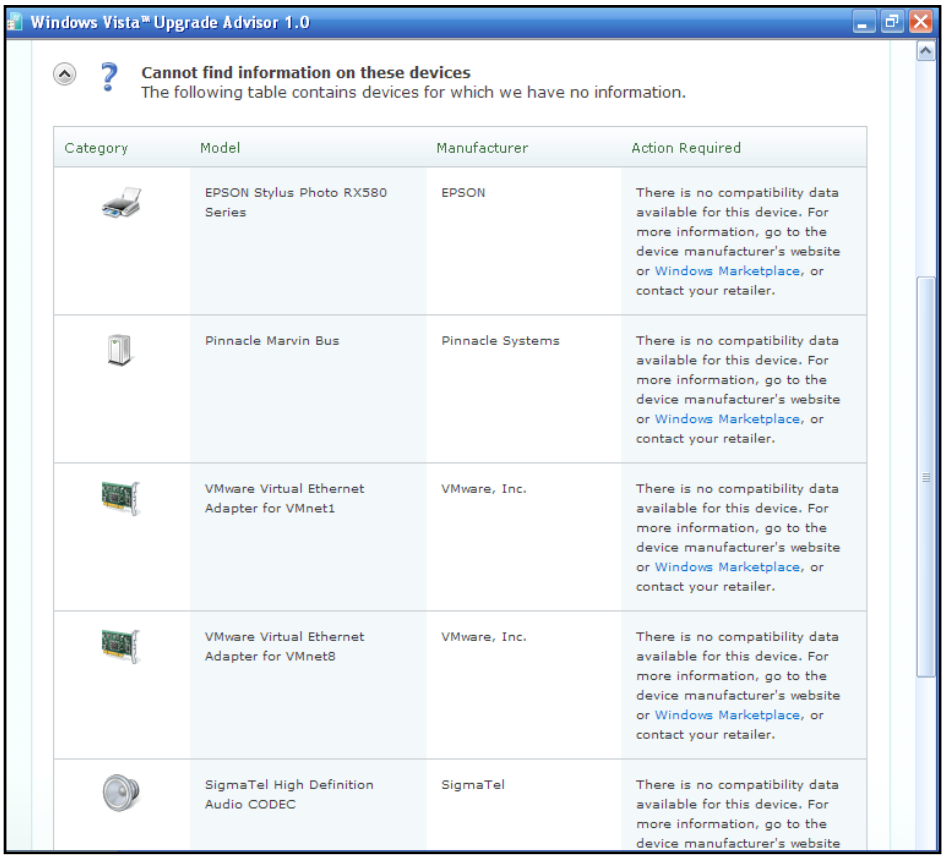

Figure 1-3: Windows Vista Upgrade Advisor Detailed Device Compatibility Report

You can also look to see which applications may be problematic:

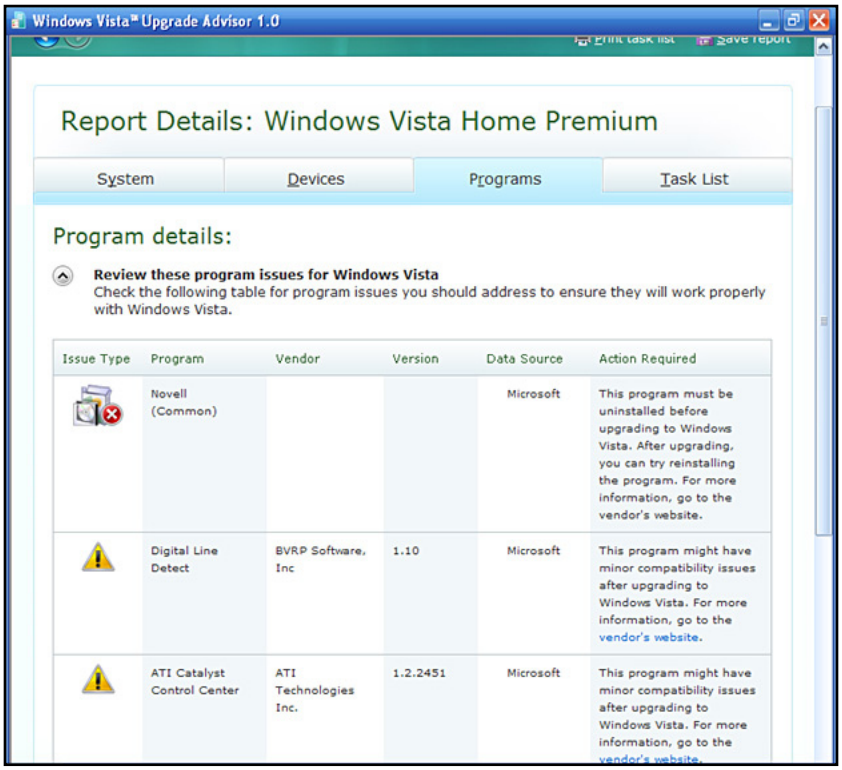

Figure 1-4: Windows Vista Upgrade Advisor Software Compatibility Report

A clean installation of Vista is fairly straightforward. Place the optical disk in the drive and turn the computer on. The installation program determines whether you want to perform a new installation or repair a current installation. It asks for your key, which will determine which version of Vista is to be installed. After the files are copied and the operating system is installed, the user is prompted for information such as the name of the computer, what time zone the computer operates in, and the location where the computer will reside.

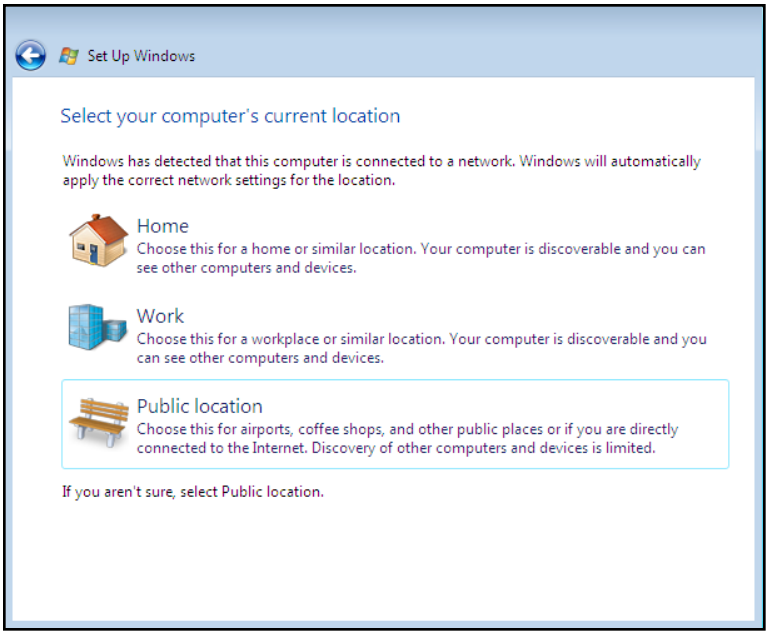

Figure 1-5: Vista Network Setup

Vista will use this information to determine which services will be installed and how visible your computer will be on a given network setup. Finally, when installation is completed, the computer will reboot and you will be presented with the screen below:

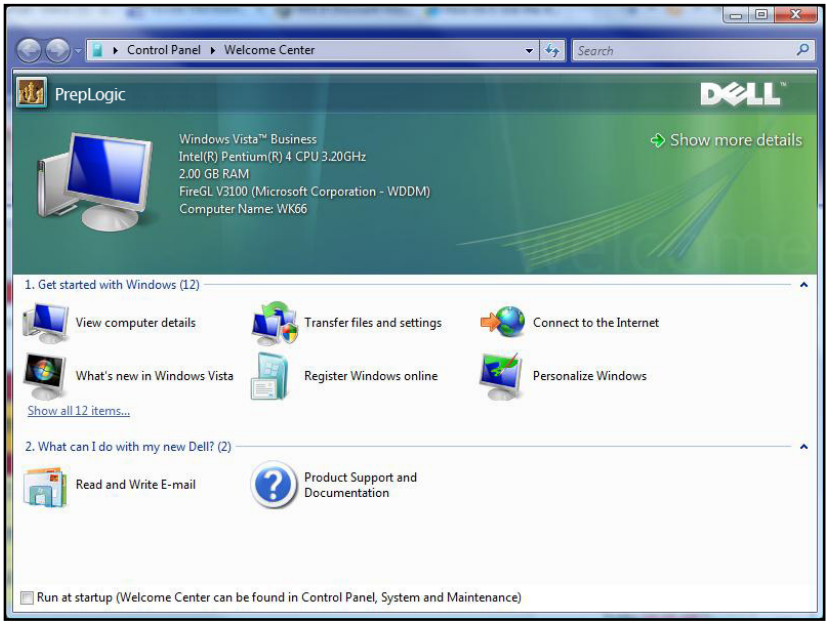

Figure 1-6: First Boot screen

The screen will then provide you with the ability to transfer files, add new users, do an Anytime Update, configure the connection to the Internet and review features that are new with Windows Vista. In addition, there are several offers from Microsoft that you can choose.

Troubleshoot and Resolve Installation Issues

Here are some installation problems that may occur with Windows Vista:

Problem	Solution
No Product Key	Vista will operate for 30 days without a product key, and then stop working. You will need to purchase a new product key before the 30-day window expires.
Problem Copying Files	1. Clean the CD or DVD. 2. Check to insure the CD or DVD drive is working properly. 3. If you have multiple CD or DVD drives, is the installation program accessing the right one? 4. Is there a virus on your computer?
Computer won't start from the installation disk	Check to make sure the CD or DVD is set as a bootable device in the BIOS.
Computer stops responding. You receive a blue or black screen or the screen does not change.	1. Wait at least 10 minutes. Check the hard disk indicator to see if there is any activity. 2. Remove antivirus software. 3. Check for hardware incompatibility. 4. Remove or disable unnecessary hardware.
You get an error message	Copy the error message and check the information on the Microsoft support Web site.

Troubleshoot and Resolve Post Installation Issues

Here are some problems that may appear after the installation of Windows Vista:

A program stops working after installing Windows Vista	Check with the program manufacturer.
A device stops working after installing Windows Vista	Reinstall the device. If that does not solve the problem, check with the manufacturer for updated drivers.
Monitor does not display properly	Check monitor cables. Check video card installation. Check for updated drivers. Change resolution.
Cannot play sound	Check that the volume is turned up. Make sure the sound card is installed properly. Update the sound card drivers.

Post Installation Customize and Configure Settings

Configure Sidebar

The Vista desktop now contains the sidebar, as shown below:

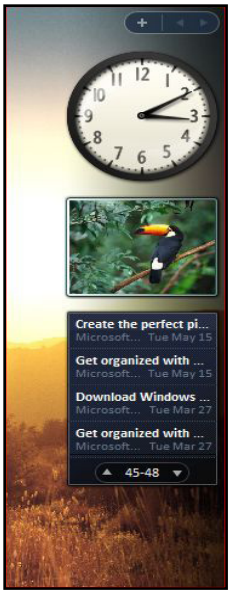

Figure 2-1: Windows Sidebar

The sidebar is made up of gadgets. The three gadgets installed by default are a clock, an image slide show, and a gadget that will display RSS headlines. Gadgets are designed to put tools on the desktop where they will be easy to access. If you do not like the location of the gadgets, you can change the configuration by **right-clicking** within the sidebar and selecting **Properties**.

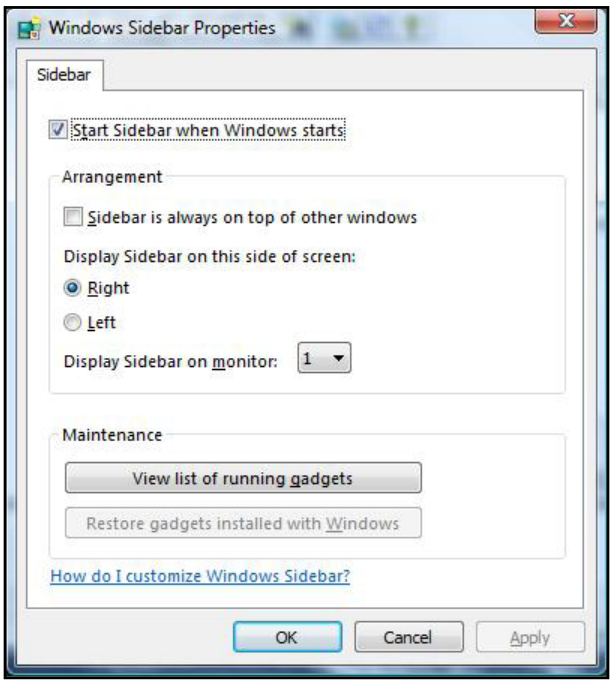

Figure 2-2: Windows Sidebar Properties

With the Properties box, you can determine whether the gadgets will start when the computer starts and choose which side of the screen the gadgets will appear on. You can also determine which monitor will be used for the gadgets (if you have a dual-monitor setup), and whether they will always be on top of the other windows.

Gadgets can be added by clicking the + sign on the gadget tool bar. There are 11 gadgets that come standard with Vista, but you can go online and choose from many more. When a gadget is added to the toolbar, it can be dragged to another location on the desktop. If you choose to have the gadget in the sidebar and it becomes too crowded, Vista will automatically move it to the side where it can be accessed by using the arrow keys at the top of the Sidebar.

Each gadget also comes with its own menu. Menu choices will vary with the gadget, but usually include an Options button to change the look and feel of the gadget and a button to close the gadget and remove it from the Sidebar. The menu becomes available whenever the gadget has been selected.

Configure Windows Aero

Aero is the name of the new look and feel to the Windows desktop. It is only available provided you have the right combination of video card, DirectX version, RAM, processor and Vista version. Aero creates a transparent window on your desktop and, by using the Window and Tab keys together, you can flip through these Windows in 3D mode. In addition, when a window has been minimized, Aero provides a thumbnail view of the window on the taskbar. All versions of Windows Vista are Aero-capable, except for Home Basic.

The hardware and software requirements to run Aero are:

- 1-GHz 32-bit (x86) or 64-bit (x64) processor
- 1 gigabyte (GB) of random access memory (RAM)
- 128-MB graphics card with a DirectX 9-class graphics processor that supports a Windows Display Driver Model (WDDM) Driver, Pixel Shader 2.0 in hardware, and 32 bits per pixel.

Microsoft recommends these graphics processor specifications:

- 64 MB of graphics memory to support a single monitor with a resolution that is less than 1,310,720 pixels (for example, a 17–inch flat panel LCD monitor that has a 1280 × 1024 resolution)
- 128 MB of graphics memory to support a single monitor with a resolution from 1,310,720 to 2,304,000 pixels (for example, a 21.1–inch flat panel LCD monitor that has up to a 1600 × 1200 resolution)
- 256 MB of graphics memory to support a single monitor with a resolution greater than 2,304,000 pixels (for example, a 30–inch wide-screen flat panel LCD monitor that has up to a 2560 × 1600 resolution)

If your computer supports Aero, it will be available by **right-clicking** on an open area of the desktop and choosing **Personalize**. From **Personalize**, choose **Windows Color and Appearance**. Aero will appear in the choices for the color scheme. If the computer has all the components to support Aero, but it still does not appear, check to make sure that the color is set to 32-bit, the monitor refresh rate is higher than 10 Hz, the theme is set to Windows Vista, the color scheme is set to Windows Aero, and window frame transparency is on.

Customize and Configure User Accounts

User Account Management is now done from **Control Panel -> User Accounts and Family Safety**. Creating multiple user accounts gives each user the chance to customize their Windows experience—changing the look and feel of the desktop, sharing or not sharing data, and even having applications that are available to one user without being available to others.

Note: One of the big changes that Microsoft has made to user accounts is the addition of User Account Control (UAC). UAC will be covered in the section on Security.

From the Control Panel > User Accounts and Family Safety window, you click on **Add or Remove User Accounts** to add a new user. If UAC is turned on, you will be prompted with a window that says **"Windows needs permission to continue"**. This safety valve is put in place to make sure that an Administrative user is prompted to approve of computer-wide changes. Clicking Continue brings you to a page where all current user accounts are listed. At this point, you can double-click on an existing user account to customize it, create a new user account or configure Parental Controls.

If you click on **Create a new user account**, you are prompted for a user name and a choice between **Administrator** and **Standard User**. In XP, the non-administrative type account was called a limited account. The default choice in Vista is Standard User. A standard user can access most applications and make changes to settings that do not affect the entire computer. The Administrator has full control over the computer. When the appropriate settings are chosen, click Continue and the account is created.

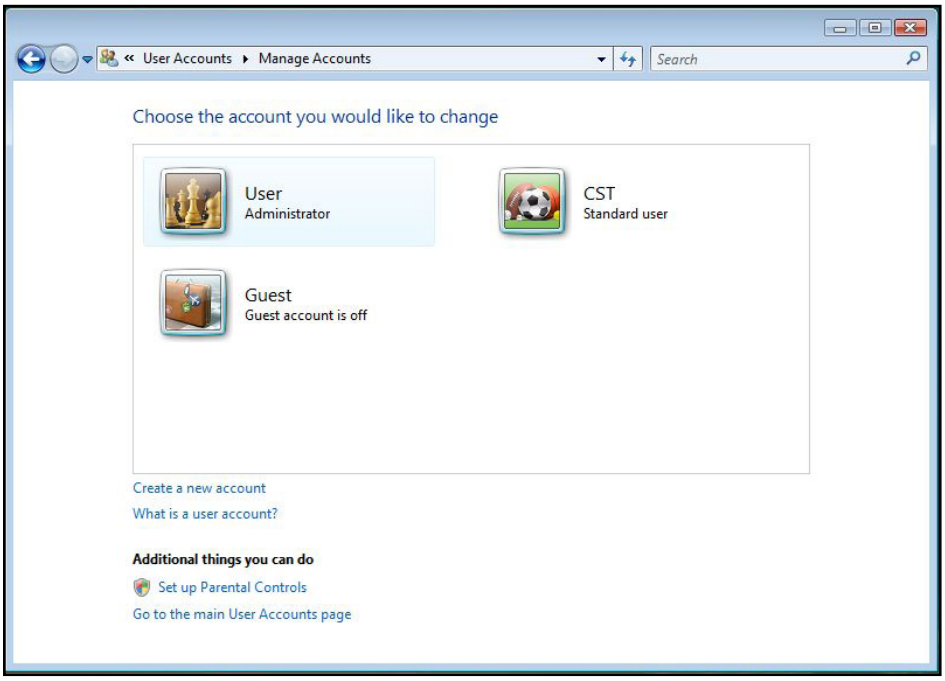

Figure 2-3: Manage User Accounts Window

This figure above shows three created accounts. Guest is created, and disabled, by default when Vista is installed. "User" is the first account created by the Vista installation and is therefore given Administrator privileges. CST, a user account created for the purposes of this guide, is a standard user account.

If you want to customize or configure a standard account you have created, simply click on the account icon. You are presented with the following screen:

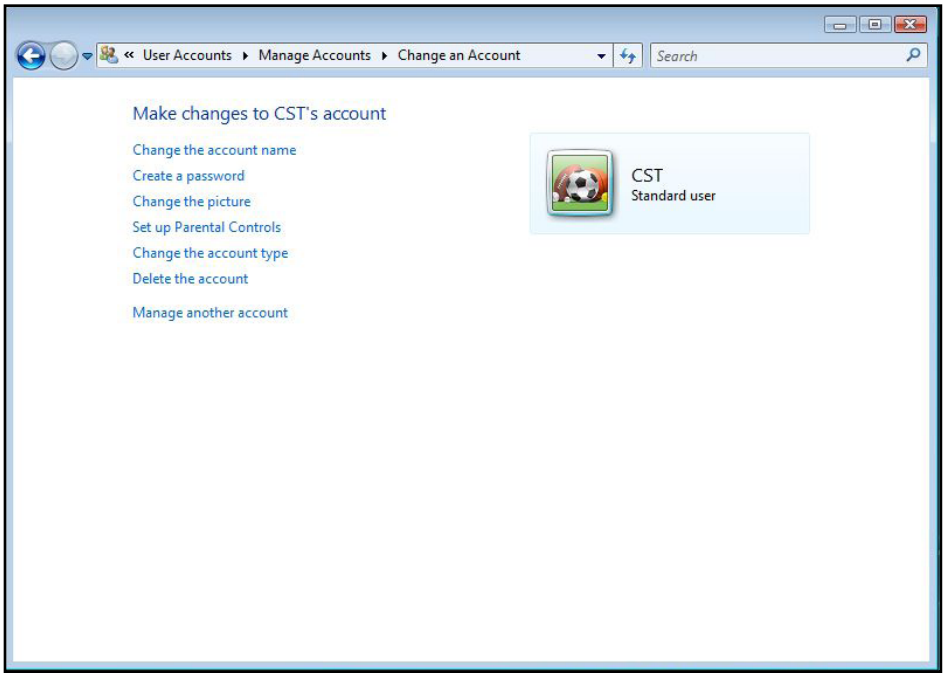

Figure 2-4: Change an Account Settings

The choices are straightforward. You may change: the account name, the account's password, the picture associated with the account, the account type, or you may delete the account. **Set up Parental Controls** is a new setting introduced with Vista.

When you choose to set up Parental Controls, you are first asked which account you want to control. You can also set up a game rating system and define and configure family safety options.

Defining and configuring Parental Controls will be covered in more detail in the Security section.

Evaluate User's System and Recommend Appropriate Settings to Optimize Performance

Windows Vista is a powerful operating system. To take advantage of this power, your system may need to make changes to the way Vista operates.

Starting with Vista, Microsoft introduced a new tool that describes the way a particular machine responds to the operating system as your **Windows Experience**. The Performance Information and Tools are available from within Control Panel by choosing System Maintenance and Tools, then choosing Performance Information and Tools. Whenever new hardware is added, your Experience Index may need to be refreshed.

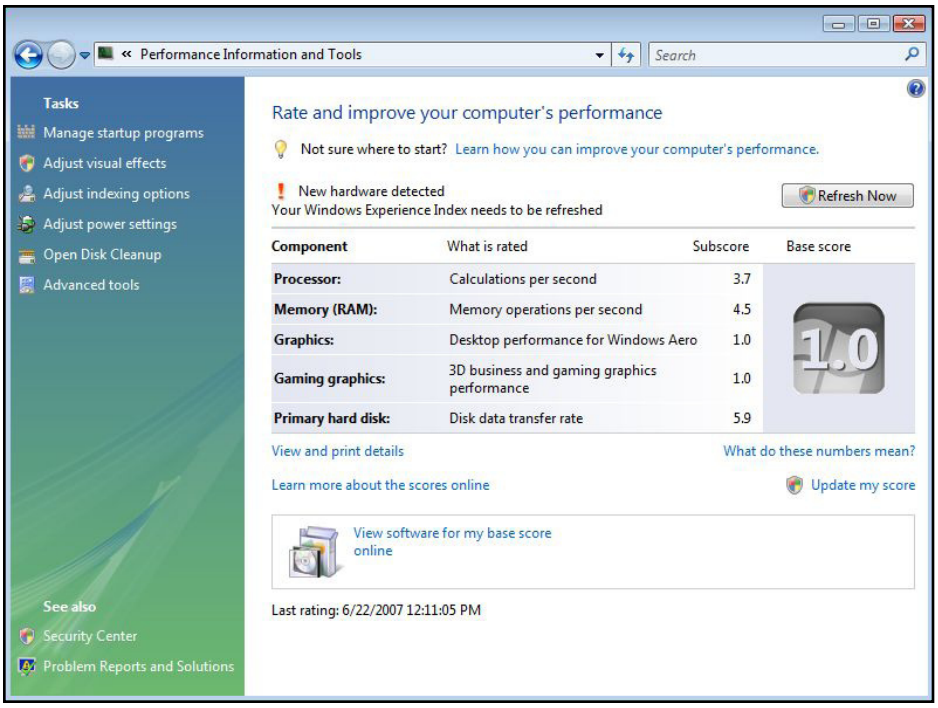

Figure 2-5: Performance Information and Tools Window

Notice that the computer is rated in various categories. The lowest score is determined to be the computer's base score. You can use this base score when buying software to decide if your computer has the resources to run the new software.

If the computer is running at an unacceptable level, you can use this page to make changes to the default settings. There are six areas that can be changed to affect the computers performance.

Manage Startup Programs	When some programs are installed, the installation routine configures the program to start when the computer is turned on. Too many programs automatically starting can stress resources. To check the programs that run at startup, click Manage Startup Programs which starts Windows Defender.
Adjust Visual Effects	Aero can provide an interesting graphical experience, but it takes resources. If the computer is running slowly, changing how Aero handles transitions and displays may free up resources.
Adjust indexing options	If you search for information or files on your computer frequently, adjust the indexing options.
Adjust power settings	Power settings can be changed to speed up the way the computer restarts after being in sleep mode.
Open Disk Cleanup	Get rid of temporary files.
Advanced Tools	This is the link to Event Viewer and the log files. Examine log files to find out if there is anything that represents a resource drain.

If you have worked with Windows for some time, many of these tools will be familiar, although the look and feel may have changed. In some cases, the information provided has been updated and improved. For example, if you choose to look at the startup programs in Windows Defender, you now get a more complete explanation of what the program does and its calling process.

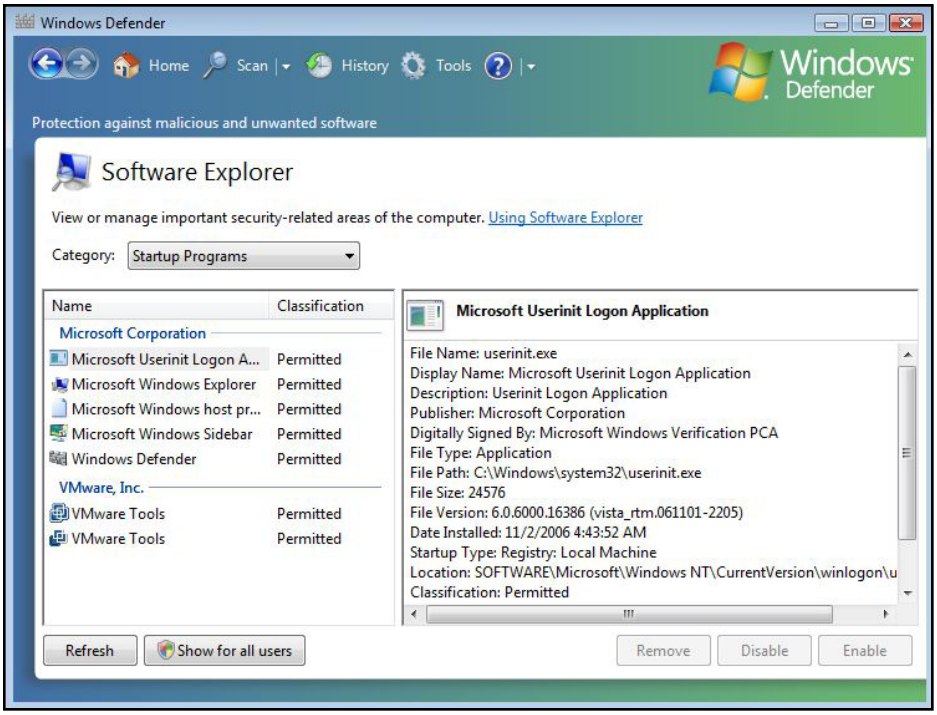

Figure 2-6: Windows Defender Startup Programs

In addition, the drop-down Category menu will show you a variety of programs and processes. You can see all Currently Running Programs, all Network Connected Programs and Winsock Service Providers.

Configure Windows Vista Security

Configure Windows Security Center

The Windows Security Center is available by navigating to **Control Panel > Security > Security Center**.

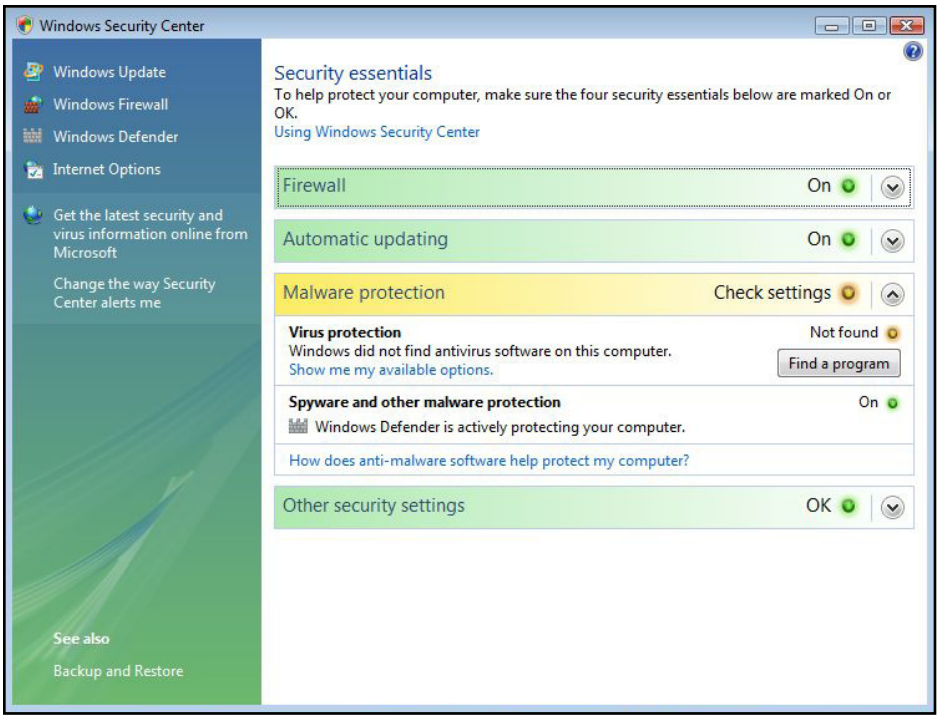

Figure 3-1: Windows Security Center

The Windows Security Center is your one-stop shop for checking the status of all things related to Vista's security functions. From here, you can access status for the Windows Firewall, Automatic Updates, malware protection, virus protection and spyware protection. The Other Security settings drop down shows the status of Internet Security Settings and User Account Control.

The configuration of the Security Center involves two areas. The first, the drop down menus, is automatic. If the Security Center finds a problem, as with the virus/malware protection above, it will open the drop down box and provide a list of alternative solutions.

You can also decide how you want Security Center to notify you. By clicking **Change the way Security Center notifies me**, you are presented with the following choices:

Figure 3-2: Security Center notification choices

As you can see, you can be notified and have an icon displayed, just display the icon, or turn notification off completely.

Configure Firewalls

All communications into and out of a computer is done by bundling the information into small pieces of information, called a packet. A simple firewall examines each of these packets and makes a decision as to whether the packet will be allowed to continue to its destination or will be discarded, based on a set of predetermined rules. These rules can be based on a variety of factors, such as where the packet is coming from, where the packet is going to or the port that is the packets final destination.

A firewall is installed and turned on, by default, with Windows Vista. The firewall will block (by default) any incoming packets that have been instituted by another computer. It will also notify you if a program on your computer is trying to access the Internet. The user needs to approve the communication before it is allowed. An example of this would be virus protection software. Virus protection, depending on configuration, can automatically update the virus definitions. In order for this to actually take place, the firewall needs to be told the communication is allowed.

If you need to change the configuration, you can do it from the Windows firewall screen.

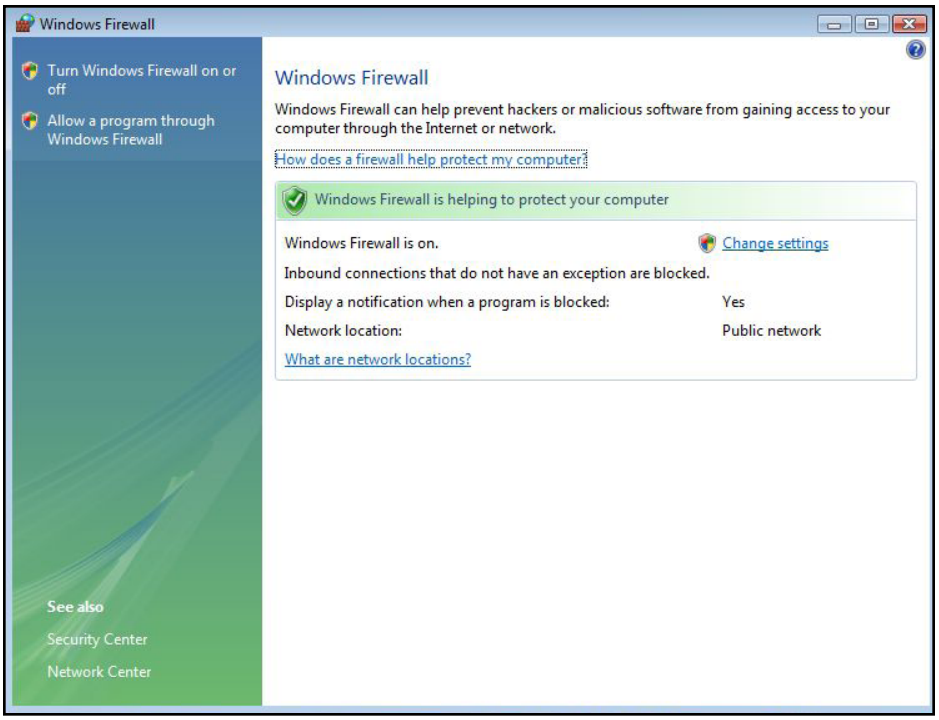

Figure 3-3: Firewall Configuration Screen

From the choices in upper right hand corner of the screen, you can either turn the firewall on or off or allow a program through the firewall.

If you click the **Change settings** link, you are taken to a window with three tabs: **General**, **Exceptions** and **Advanced**. The General tab allows you to turn the firewall on or off, and block all incoming communication to the computer. The Advanced tab allows you to choose which network adapter you want the firewall to protect.

The tab where granular configuration occurs is the Exceptions tab, shown below:

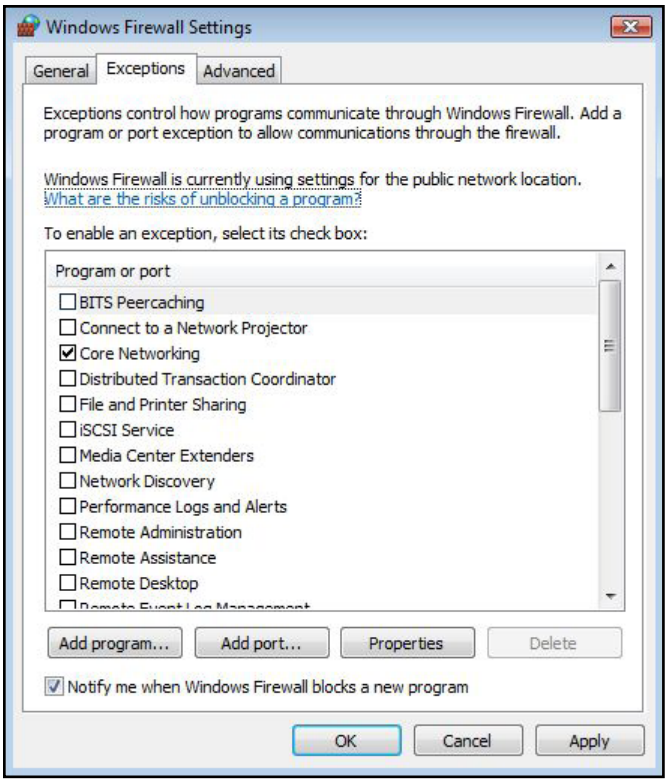

Figure 3-4: Firewall Exceptions Tab

As a general rule, the firewall will block everything that is not allowed by exceptions. By checking and applying an exception, you are allowing that communication to come through to that computer. For example, if you wanted to allow someone else to provide remote assistance, and your firewall was turned on, you would have to create an exception to allow the communication to occur.

If, in looking at the choices, you are unclear what the selection allows, you can click on the **Properties** button to get a more in-depth explanation. For example, BITS Peercaching may not be familiar to you, so by highlighting it and clicking properties, you see:

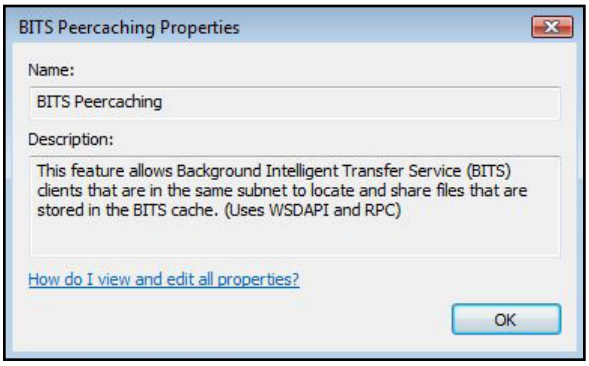

Figure 3-5: Bits Peercaching properties

In addition to having all the preconfigured choices, you can also allow communication through based on the port number. When you decide to open a port, you need to know the port number to open, the protocol (TCP or UDP) and a scope of IP addresses that can communicate with this computer. For example, if you wanted this computer to be an SMTP gateway for the 192.168.0.0 network, you would open TCP port 25 and specify all computers on the 192.168.0.0 network. The settings would look like this:

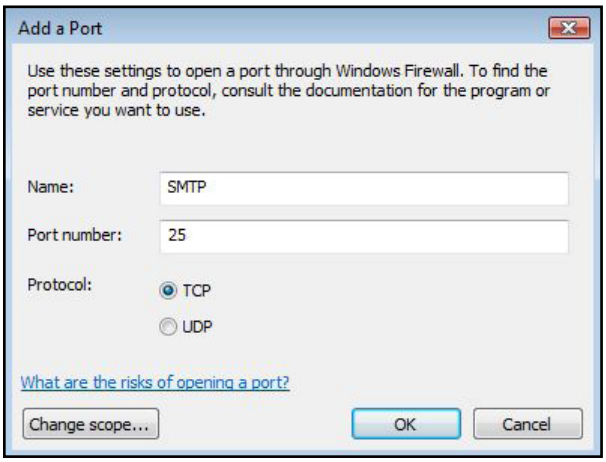

Figure 3-6: Add a port

First, you would choose to add a port. In the case provided above, you have named it SMTP and inputted the port number and appropriate protocol. Then, by clicking change scope, you receive this screen:

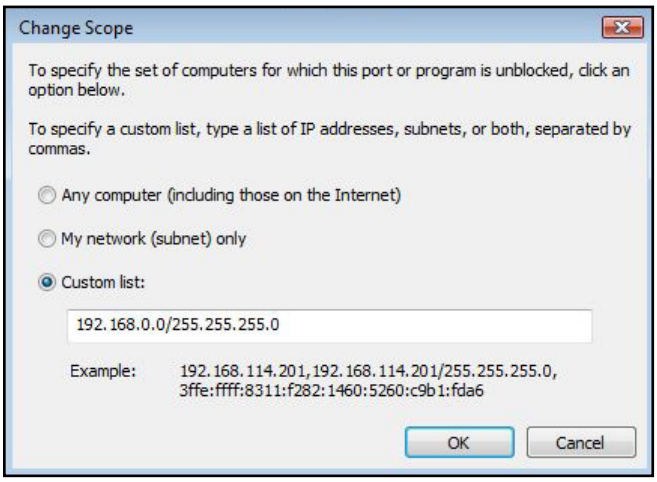

Figure 3-7: Change Scope

By setting the scope, you have the option of allowing any computer to connect to this computer, only computers on your particular subnet, or by generating a custom list. The list can contain information in either traditional IPv4 addresses or by using an IPv6 address.

Configure Windows Updates

Configuring Windows Updates is also accessed from the Security Center. Your choices for configuring Windows Updates include: check for updates, change the update settings, view the update history and restore hidden updates.

If you choose to check for updates, the system will attach to Microsoft's site and determine which updates you need for your computer. You will then be given the option of having the updates automatically downloaded and installed, or to have the updates downloaded for installation at a later time. In addition, you can choose which updates you want installed.

If you decide that you want to configure how Vista handles the update process, you can opt to change update settings, which provides you with this view:

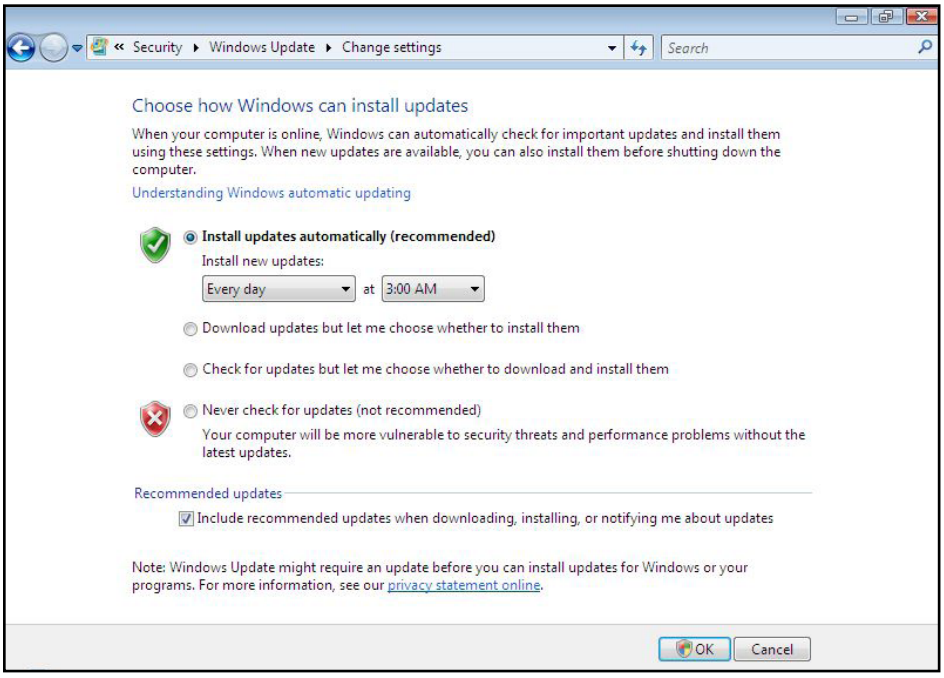

Figure 3-8: Change Windows Update Settings

Again, you can choose to install the updates manually or automatically and decide when updates will be downloaded. You can choose to check for updates every day or on a specific day of the week, at a specific time. You can also opt to never check for updates. You can also check whether you want the recommended updates displayed for downloading, installing and notification.

If you wish to determine whether a specific update has been installed, you can choose to view the update history.

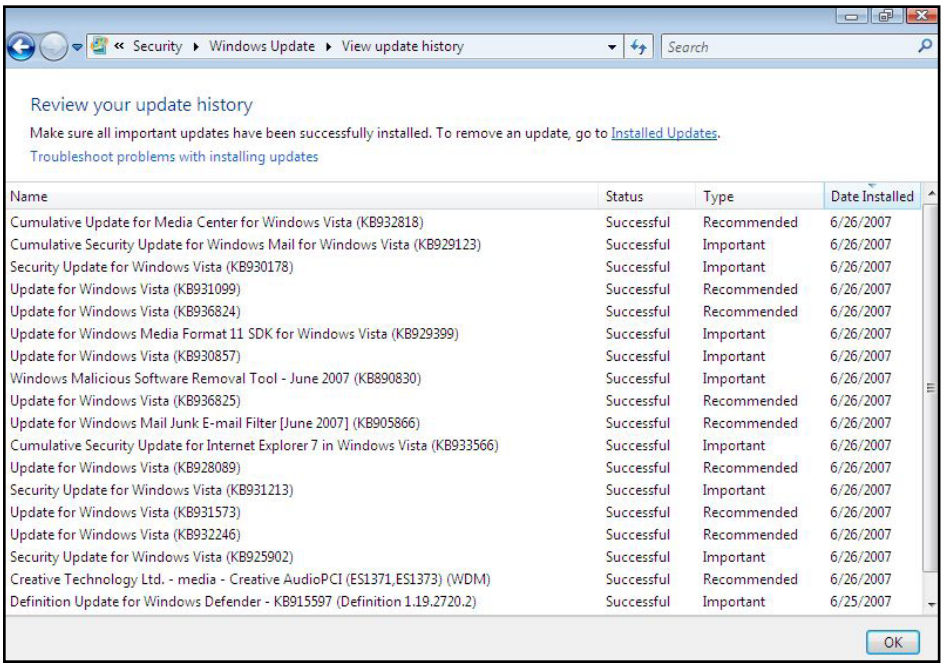

Figure 3-9: Update History

Update history gives a breakdown of which updates have been installed and when, and what type of update was installed.

Finally, you can restore and install a hidden update, if you have any.

Configure Windows Defender

Windows Defender is a new tool in Vista that helps to protect your computer against spyware and malware. You can use defender to scan your computer and detect instances of unwanted software. Configuring Defender is accomplished through the Security Center by choosing Windows Defender.

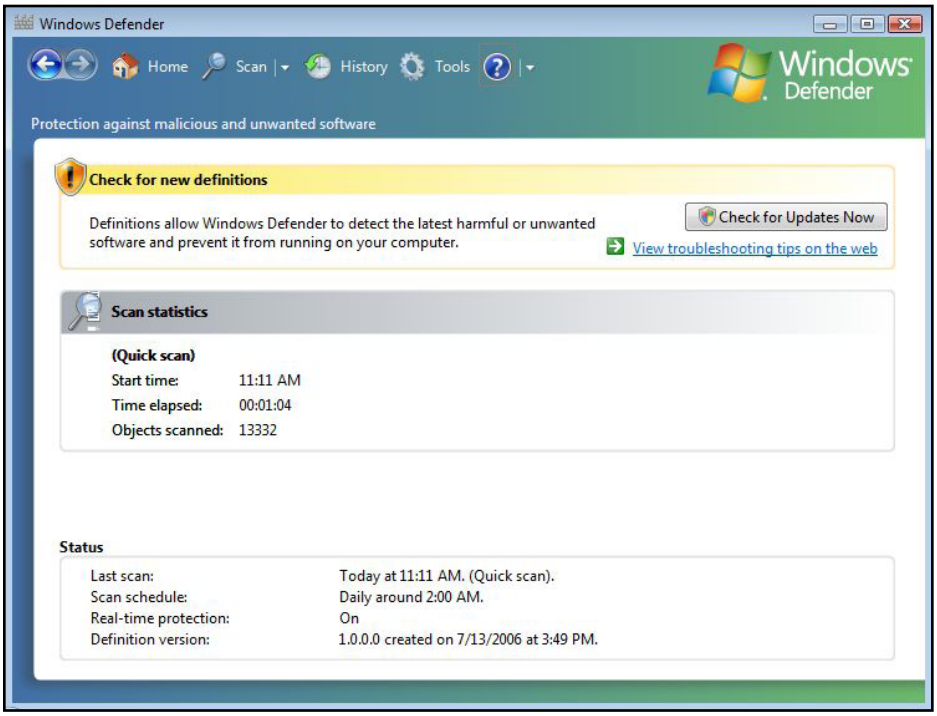

Figure 3-10: Windows Defender

As you can see, on the primary screen you can check for updates to the definitions as well as initiate a scan.

From the top menu, you can choose **History** to see what processes and application installations have been allowed or denied. For a more granular control of defender, you must choose **Tools and Settings**, shown below.

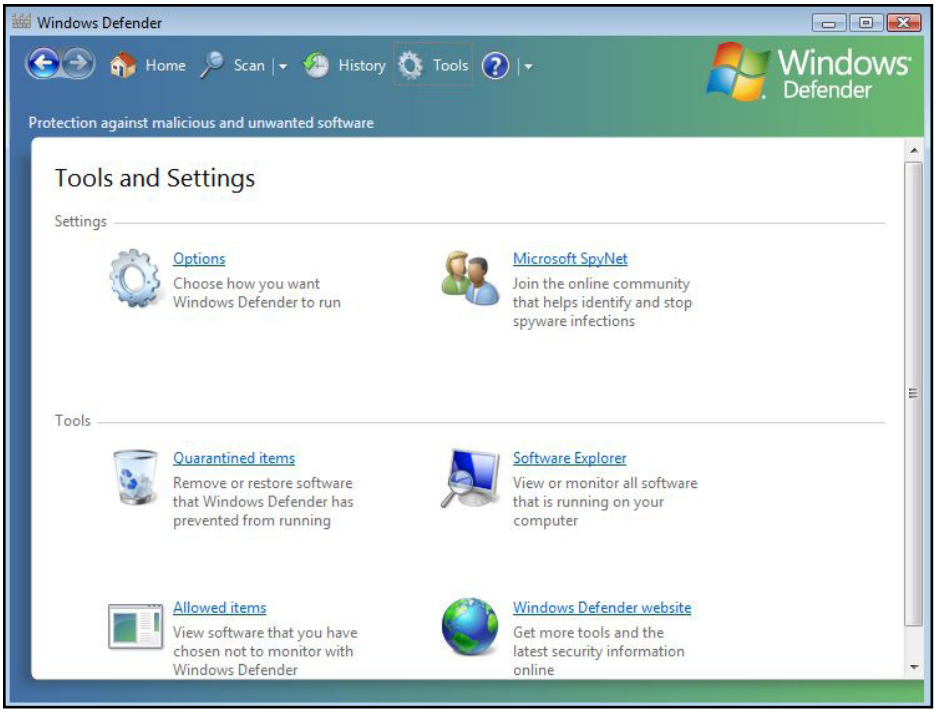

Figure 3-11: Windows Defender Tools and Settings

Default actions of the Defender are controlled through the options menu. This includes when to run a scan, whether to check for new definitions before running the scan and whether to run a quick or a full scan.

You can also set the default action for each of Windows Defenders Alert Levels. The Alert levels are:

Level	Type of problem	Recommended Action
Severe	Widespread or exceptionally malicious programs, similar to viruses or worms, which negatively affect your privacy and the security of your computer, and can damage your computer.	Remove software immediately
High	Programs that might collect your personal information and negatively affect your privacy or damage your computer, for example, by collecting information or changing settings, typically without your knowledge or consent.	Remove software immediately
Medium	Programs that might affect your privacy or make changes to your computer that could negatively impact your computing experience, for example, by collecting personal information or changing settings.	Review the alert details to see why the software was detected. If you do not like how the software operates, or if you do not recognize and trust the publisher, consider blocking or removing the software
Low	Potentially unwanted software that might collect information about you or your computer or change how your computer works, but is operating in agreement with licensing terms displayed when you installed the software.	This software is typically benign when it runs on your computer, unless it was installed without your knowledge. If you're not sure whether to allow it, review the alert details or check to see if you recognize and trust the publisher of the software.
Not Yet Classified	These are typically benign programs, unless they are installed on your computer without your knowledge.	If you recognize and trust the software, allow it to run. If you do not recognize the software or the publisher, review the alert details to decide how to take action. If you're a SpyNet community member, check the community ratings to see if other users trust the software.

Next, under settings, you can configure real time protection.

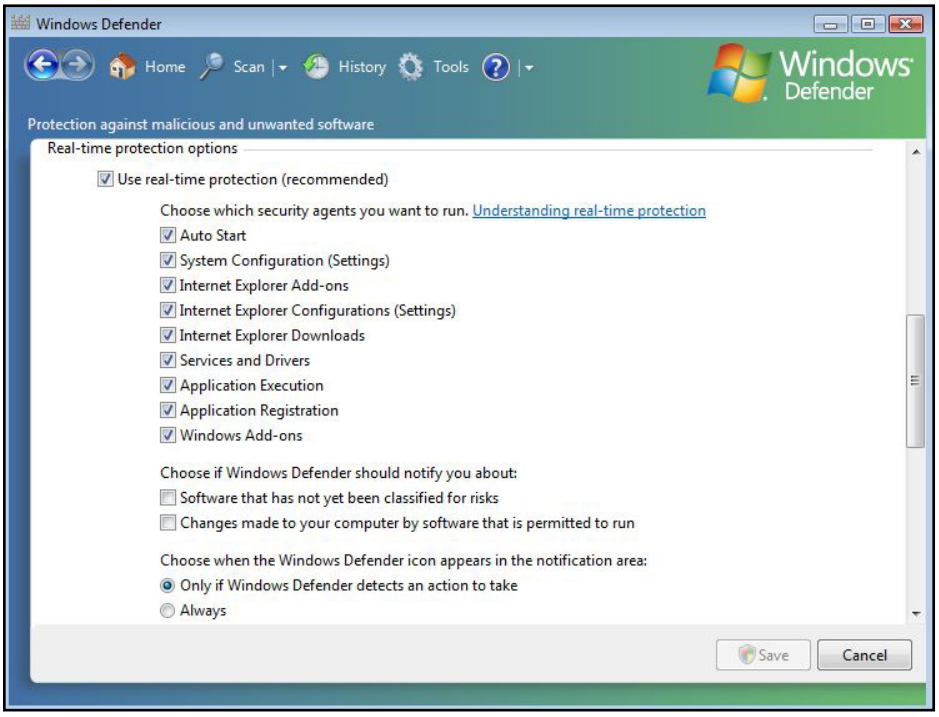

Figure 3-12: Real Time Protection Settings

The real time protection settings are where you can configure the various warning messages you receive. If you don't want to be notified if an application sets itself to automatically start, you can remove that service in this area. Note that you can also have Defender notify you about software that is unknown or changes made by software that is already permitted to run.

Advanced options are located at the bottom of the same screen:

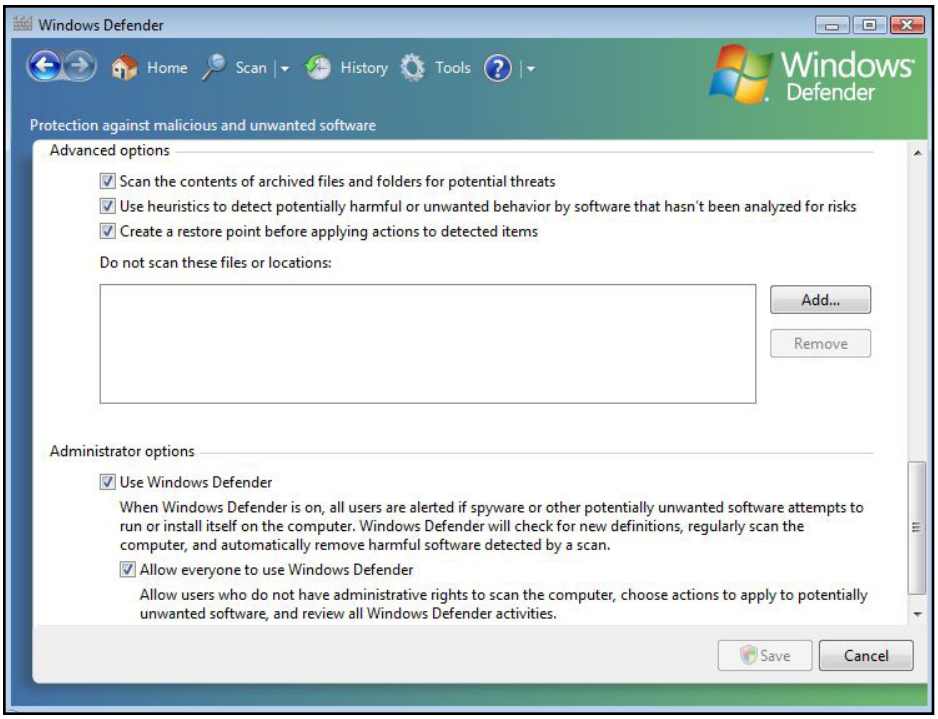

Figure 3-13: Windows Defender Advanced Options

Under advanced options, you can configure what you want scanned and what you want to use to determine if a particular program is malicious in nature. Finally, you can choose to enable or disable Windows Defender as a whole and determine who will be able to use it.

Configure Parental Controls

When you first access Parental Controls from inside the Security Center, Vista checks to make sure that all users that have Administrative controls have passwords. If you opt NOT to have a password for these users, Parental Controls are disabled.

If there is only one account created on the computer, Vista gives you the opportunity to create another account. Obviously, if there is only one account on the computer, and it has Parental Controls set, it will affect everyone who uses that account. Since the single account would also be an administrator account, it would be simple to override or remove the controls.

Once an additional user has been created, the Parental Controls screen below becomes active.

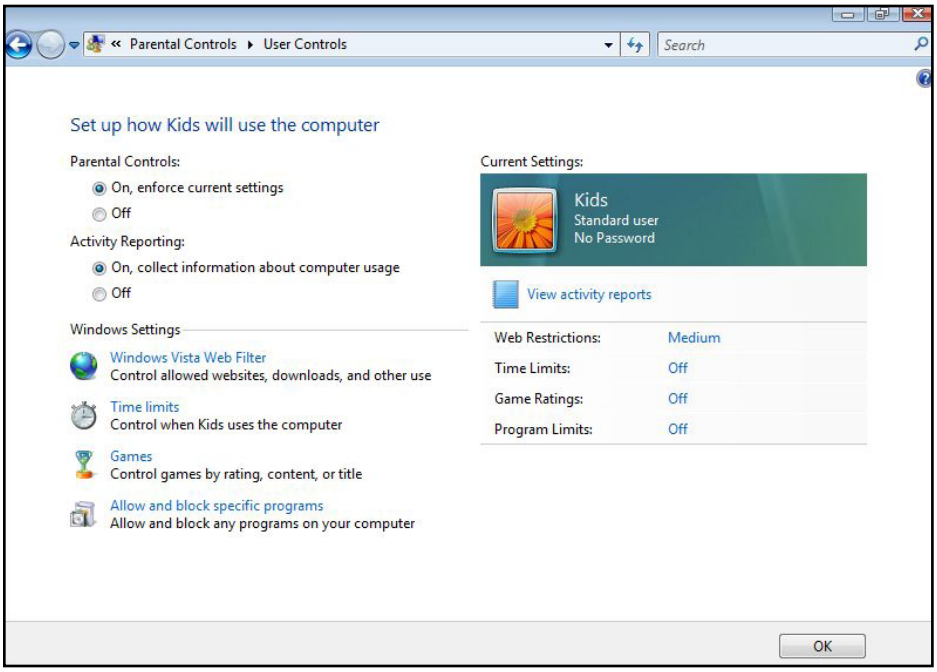

Figure 3-14: Parental Controls

Through the use of radio buttons, you can turn the various controls on or off, and decide whether you are going to log the activity of a particular user (the user "Kids", in this instance). Once these decisions are made, you can set Windows Vista Web Filters, Time Limits, Games and Allow or Block Specific Programs.

Windows Vista Web Filter

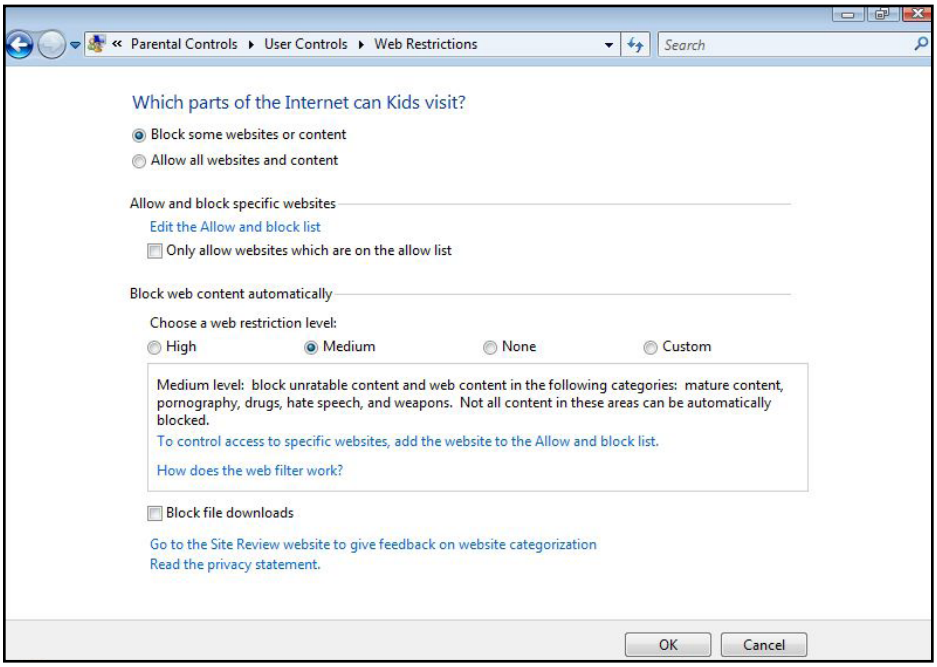

Figure 3-15: Web restrictions

Web Restrictions enable you to allow or block web sites. You can start by creating an allow or deny list, and allow or deny specific web sites. A simpler process would be to simply click the box that will only allow visits to web sites specifically on the allow list.

You can also automatically block or allow web sites based on filters setup by Windows, or through a custom filter. The restriction levels are:

Level	Restrictions
High	Blocks all web sites not suitable for children as defined in the allow and block list.
Medium	Blocks un-ratable content and web content in the categories of mature content, pornography, drugs, hate speech and weapons. Not all content on these sites will be blocked.
None	No content will be blocked.
Custom	Allows the parents to choose to block: Pornography, mature content, sex education, hate speech, bomb making, weapons, drugs, alcohol, tobacco, gambling and un-ratable content.

Time Limits

In this section, you can choose to allow the user to be on the computer based on day of the week and the time of the day.

Games

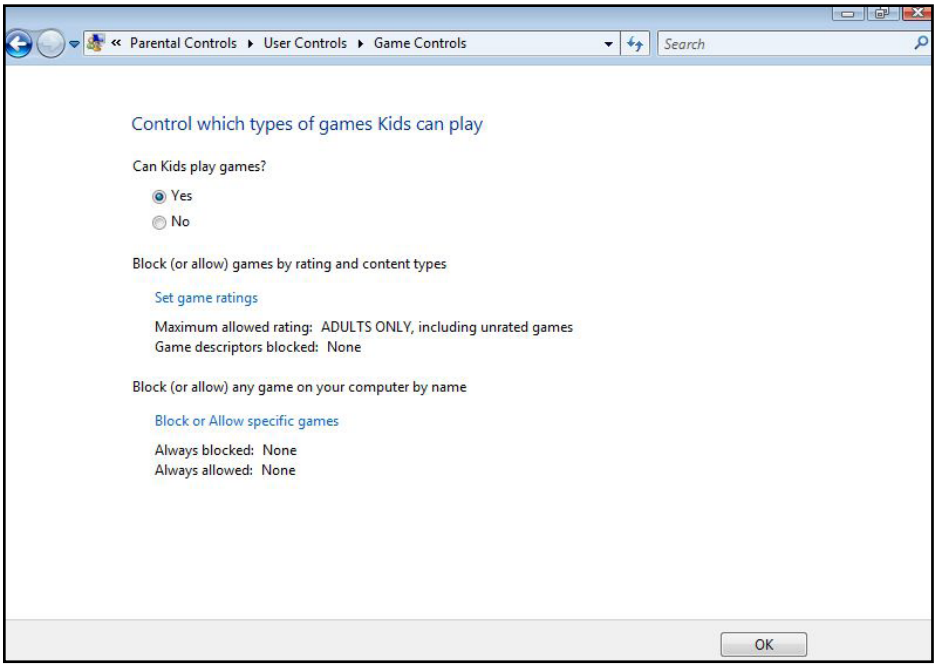

Figure 3-16: Game Control

Here, you can specify whether a specified account ("Kids", in this instance) is allowed to play games at all. If they can play games, you can choose which games the children are allowed to play based on a game's rating (or lack thereof), or based on a long list of content.

You can also block or allow specific games on your computer.

Allow or Block Specific Programs

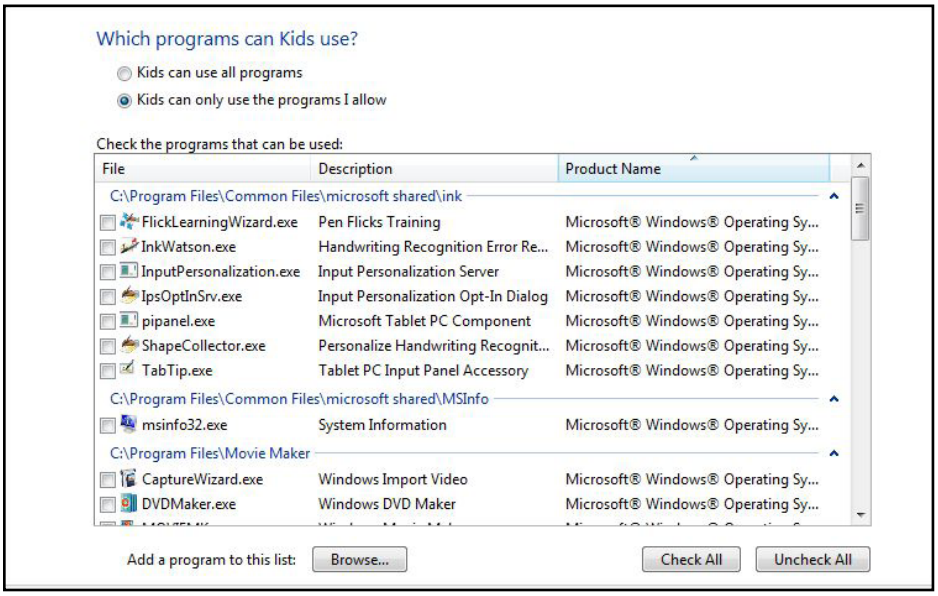

Figure 3-17: Program Content

If you decide that specific users cannot access all programs on the computer, Vista searches for installed content and presents the Administrator with a list. The Administrator can then choose to allow or deny the user access to that specific program on that specific computer.

Configure Internet Explorer 7.x

Since this section deals with security, we will concentrate on three of the Internet Explorer configuration tabs, **Security**, **Privacy** and **Content**. You can get to these tabs by accessing Internet Options, either in the Security Center or in Internet Explorer itself. From the Internet Options section, you can change security settings, delete browsing history and cookies, and Manage Add Ons.

Security

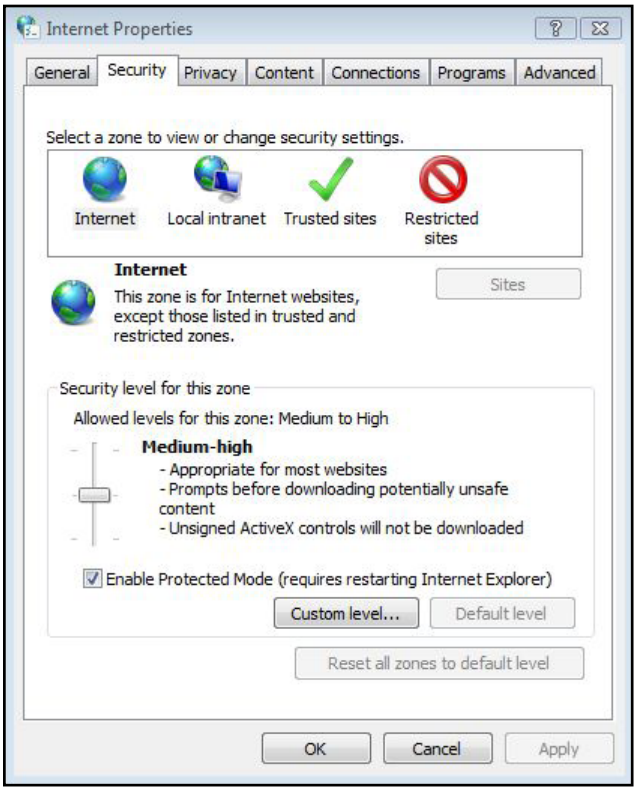

Figure 3-18: Internet Options Security

The Security Tab of Internet Explorer 7 has not changed much from its predecessors. You still have the ability to divide your browsing into four categories: **Internet**, **Local Intranet**, **Trusted Sites** and **Restricted**. For each of these categories, you can choose a security level, or define custom settings to match your individual needs.

Moving the Security Level slider up or down gives the user a more or less restrictive web experience. With each change, examples of what is blocked or allowed are given. Each category has different allowed levels. For example, the Internet has allowed levels of High, Medium-High and Medium, while the Local Intranet has High, Medium-High, Medium, Medium-Low and Low, with different functionality at each level.

Privacy

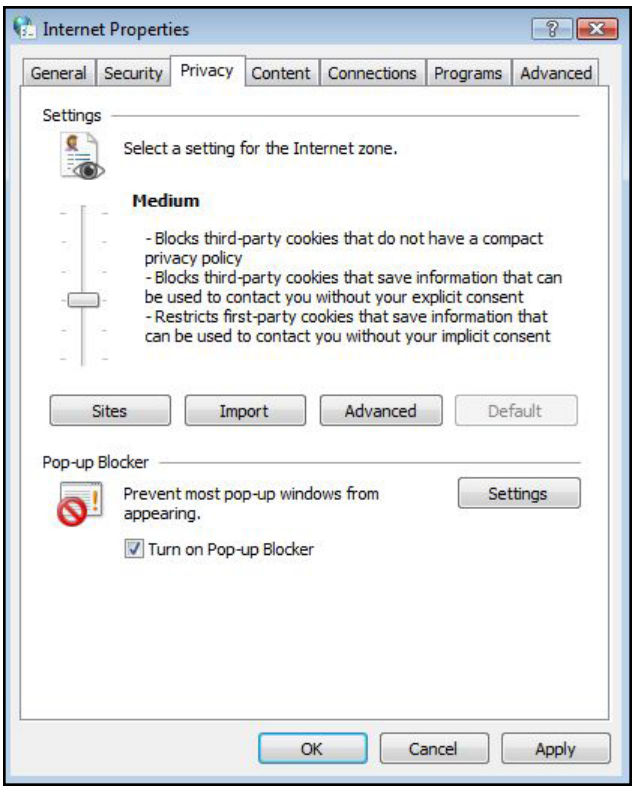

Figure 3-19: Privacy Settings

The use of cookies to store and gather information from a remote computer has become commonplace on the Internet. One way of preventing information from being transferred to or from the web is to adjust the privacy settings in Internet Explorer:

- If you set the privacy settings to **Block All Cookies**, all cookies will be blocked.
- **High Privacy** blocks all cookies from web sites that do not have a compact privacy policy and all cookies will be blocked that save your contact information.
- **Medium High** privacy acts on third party cookies and continues to block those cookies that will save information that can be used to contact you without your prior consent.
- **Low** privacy blocks third party cookies without a compact privacy policy and those cookies that can be used to contact you without your consent.
- The most liberal setting is to **Allow All Cookies**.

This page can also be used to configure how popups are handled. You can block all popups, allow all popups or choose specific sites to block or allow popups.

Content

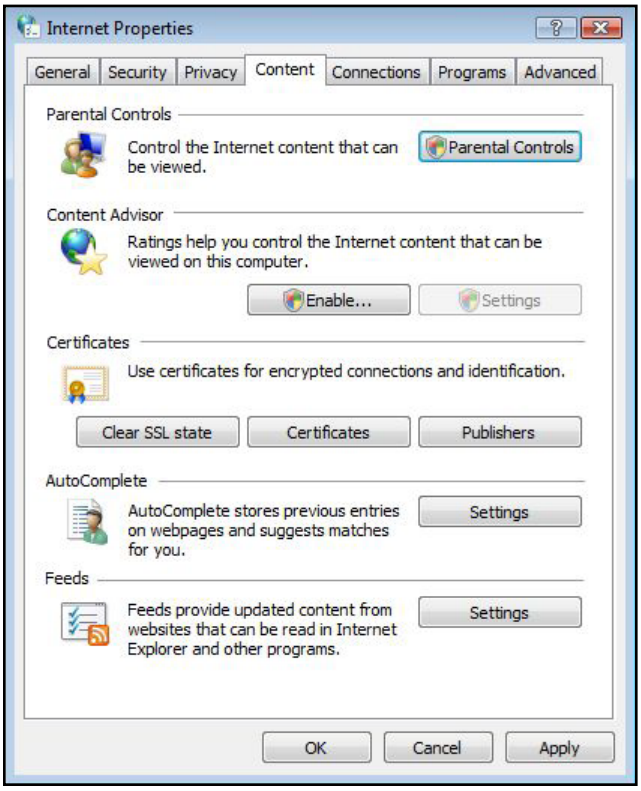

Figure 3-20: Content Selections

The first section of the Content Tab links back into the parental controls that were discussed earlier in this guide. If you enable the content advisor, you can choose what type of content you will view on a web page. The categories are the same as those found in the Parental Controls. Additionally, this section allows you to set a supervisor password; if a user knows the supervisor password, they will be able to view a web page otherwise banned.

One other difference between Parental Controls and Content monitoring is the rating system. With Content monitoring, you can choose which rating agency you would like to use.

Configure User Account Control

User Account Control (UAC) is another new feature of Windows Vista. It is designed to stop unauthorized changes to the computer by asking for permission to make a change or having the user enter the supervisor password before continuing with the process. It is designed to stop malicious software and spyware from installing itself or making changes to the computer without permission.

UAC is enabled by default. It can be configured by a user who has Administrative level privileges. To configure it:

1. Navigate to **Start > All Program > Accessories > Run**.
2. In the **Open** box, type **secpol.msc** and click **OK**.
3. If UAC is in Admin Approval Mode, the User Account Control message will appear. Click **Continue**.
4. The Local Security Policy tree will be displayed. Click **Local Policies**. Double-click **Security Options**.
5. Double-click **User Account Control: Behavior of the elevation prompt for administrators in Admin Approval Mode**.
6. Select one of the settings:
   a. **Elevate without prompting –** Applications marked as administrator applications, as well as setup applications, will run with the full administrator access. All other applications will run as a standard user.
   b. **Prompt for credentials** – User must enter administrator credentials. This setting supports compliance with Common Criteria, or corporate policies.
   c. **Prompt for consent** – This is the default setting.
7. Click **Apply**.

To change the behavior of the User Account Control message for standard users:

1. Navigate to **Start > All Programs > Accessories > Run**.
2. In the **Open** box, type **secpol.msc** and click **OK**.
3. Click **Local Policies**.
4. Double-click **Security Options**.
5. Double-click **User Account Control: Behavior of the elevation prompt for standard users**.
6. Select one of the following settings:
   a. **Automatically deny elevation requests** – Administrator applications will not be able to run. The user should see an error message that states a policy has prevented the application from running.
   b. **Prompt for credentials** – This is the default setting. The user must enter administrator credentials.
7. Click **Apply**.

Configure Troubleshoot and Repair Networking

Configure and Troubleshoot Network Protocols

In this section, you should primarily be concerned with **TCP/IP version 4**, **IP version 6 (IPv6)**, **Dynamic Host Configuration Protocol (DHCP)**, **Domain Name Service (DNS)** and **Windows Internet Name Service (WINS)**.

For Vista and Windows Server 2008, Microsoft re-wrote the core TCP/IP protocol stack and replaced it with a brand new stack. This was done to combine support for TCP/IP version 4 and the new IPv6 into one set of protocols, using a common layer to both frame and transport the data packet. Support for both TCP/IP version 4 and IPv6 are installed by default.

In the new implementation, Vista is transitioning into primary support for IPv6. IPv6 provides more potential IP addresses than IPv4, but it also allows for a redesign of a protocol that is over 15 years old. This includes changes to the way that IP transfers deal with packets at the client level. Since the new stack was designed to work both in Vista and Windows Server 2008, these technologies are in place to help high end desktop computers. For example, one new technology introduced with IPv6 is the ability to off load processer intensive packet processing from the CPU to a new, smaller processer that will be included on high end network interface cards. The new stack will also do a better job of taking advantage of computers with multiple or dual core processors.

Because this is a new protocol stack, when you begin to troubleshoot network services at the client, it is important to understand the client's network infrastructure. For example, if the client network is in the process of transitioning to IPv6, or has completed the transition, you may face one set of issues. If, on the other hand, the client is perfectly content with their version 4 network, you may need to only disable IPv6 support to solve any communication issues.

Unlike Windows XP, IPv6 support cannot be installed or uninstalled. It is installed and configured by default. If you go to the command prompt and type ipconfig /all you will see the differences in configuration information between the two protocols. See the figure on the next page.

Figure 4-1: IPv6 information showing after using the ipconfig /all command.

Since adoption of IPv6 is far from universal, there have to be tools in place that will take IPv6 packets and transfer and route the packets through an IPv4 network. Two of these tools are demonstrated in the figure above. Note the configurations for Tunnel adapters Local Area Connection 6 and 7. Intra-site Automatic Tunneling Addressing protocol (ISATAP) uses the IPv4 network infrastructure to create point to point communications between IPv6 hosts.

Like ISATAP, Teredo Tunneling Pseudo Interface also creates a direct, point-to-point connection between two IPv6 hosts as if they were connected through a switch. With Teredo, however, these two hosts can be behind multiple IPv4 network address translators (NATs).

Access to configuration for all versions of TCP/IP can be accessed by navigating to **Control Panel > Network and Internet > View Network Status and Tasks**. When you reach this point, the screen will look like this:

Figure 4-2: Network Status and Tasks

Notice in the center of the picture above, it says Network (Private network) and next to Local Area Connection, you have the ability to **View Status** of the connection, which yields the information shown in the figure on the next page.

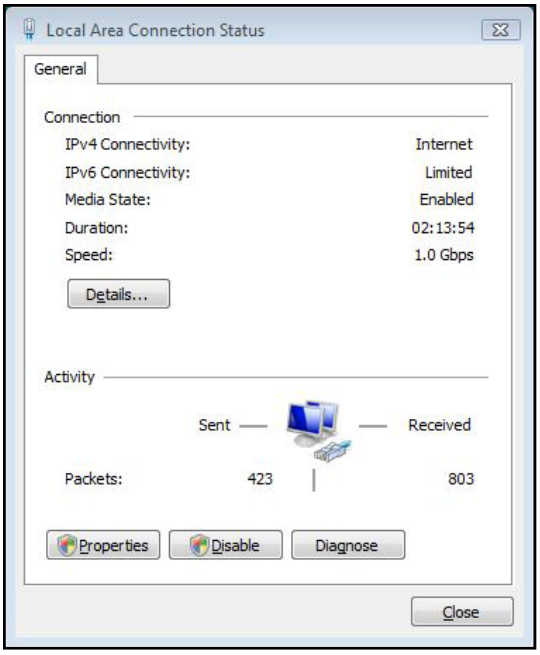

Figure 4-3: Connection Status Screen

From this screen, you can tell the computer has connectivity to the Internet using IPv4, but has limited IPv6 connectivity. The card is enabled and the card can operate at 1.0 Gbps. If you require more information than that, clicking on the **Details** button will yield the following.

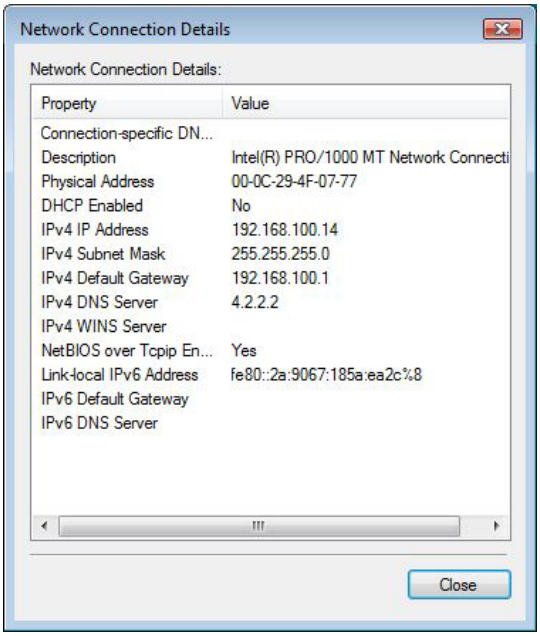

Figure 4-4: Network Connection Details

All these screens will give you an idea how the network is configured. If you need to manually configure the network or change the configuration, you can close the screen above and from the one preceding, click **Properties**.

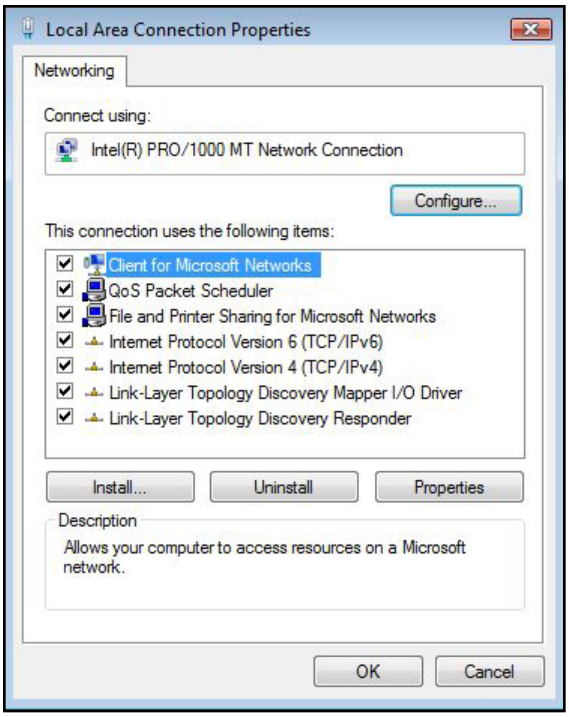

Figure 4-5: Network Connection Properties

From this screen, you can see that all clients, schedulers and protocols that are loaded by default are listed, including IPv4 and IPv6. Like previous versions of Windows, these items can be configured by highlighting the entry you want to change and clicking **Properties**. Clicking properties while highlighting Internet Protocol Version 6 results in:

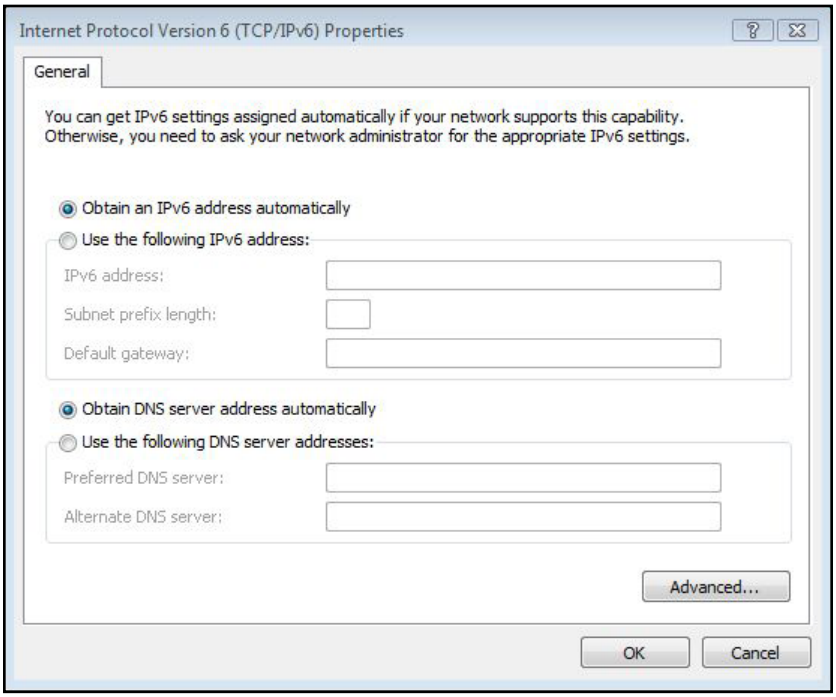

Figure 4-6: IPv6 Properties

If you are familiar with configuring the IP protocol in previous versions of Windows, you will notice this screen has the same look and feel of the IPv4 configuration. You can choose to obtain an address automatically or manually enter the address. The same is true with the DNS server information.

Hint: IPv6 addresses are much longer than IPv4. They require eight 16 bit hexadecimal colon delimited blocks. Hexadecimal means the address will contain both letters and numbers. Think long and hard about manually assigning these addresses. An address like 2007:1eb6:3b5e:0017:0000:0000:abcd:ef18 offers a lot of room for mistakes. For more information on IPv6 addressing, read this article.

Configure and Troubleshoot Network Services at the Client

According to a Microsoft White Paper on services, "Strictly speaking, a service is any Windows application that is implemented with the services API. However, services normally handle low-level tasks that require little or no user interaction." However, there are occasions when services need to be stopped or started, or you may need to change the way the service starts when the computer comes on line.

To access services, start **Control Panel** and select **Classic View**. From the Classic View, choose **Administrative Tools** and then select **Services**. You can also start services by entering a command line and typing **services.msc**.

Across the top of the window, you will notice several columns indicating the name of the service, a description of the service, the status of the service, the startup type and log on as. The size of each of these columns can be changed by clicking on the separator bar and simply dragging it. To find more information about a service, or to configure a specific service, simply double click on the appropriate service. For example, if you double clicked on Background Intelligent Transfer Service (BITS) you would see the following:

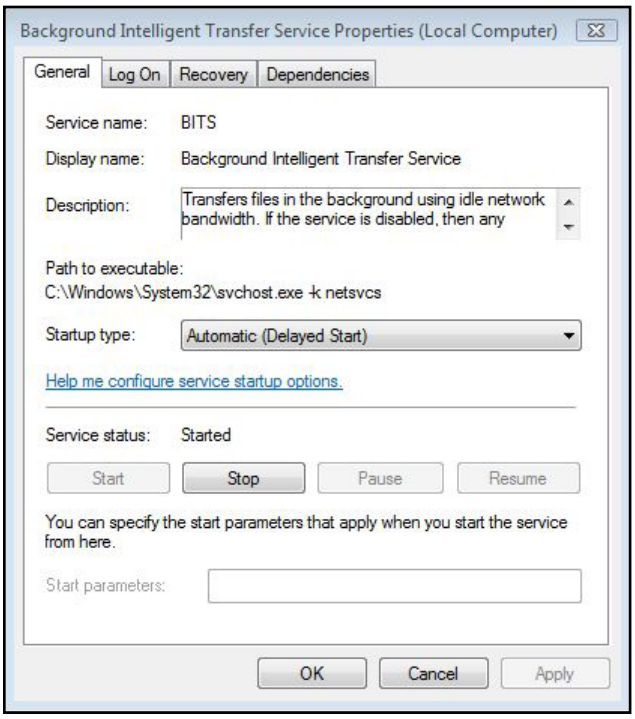

Figure 4-7: BITS General window

From here, you can see the BITS service is started. It starts when the system starts, but includes a delay that allows services on which BITS is dependent to start first. Other startup types are **Automatic**, **Manual** and **Disabled**. You are also given the path to the executable tied to the service, and the opportunity to stop the service as necessary.

The LogOn Window looks like this.

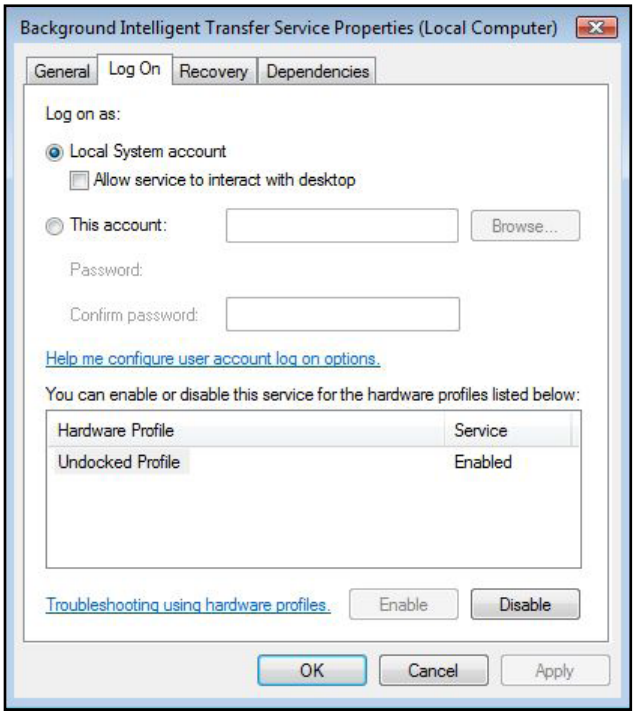

Figure 4-8: Logon tab

Here you can determine which account is being used to start the service. Usually, it will be the Local System account. If necessary, you can allow the service to interact in some way with the desktop, or assign another account to start the service. You can also assign the service to a hardware profile.

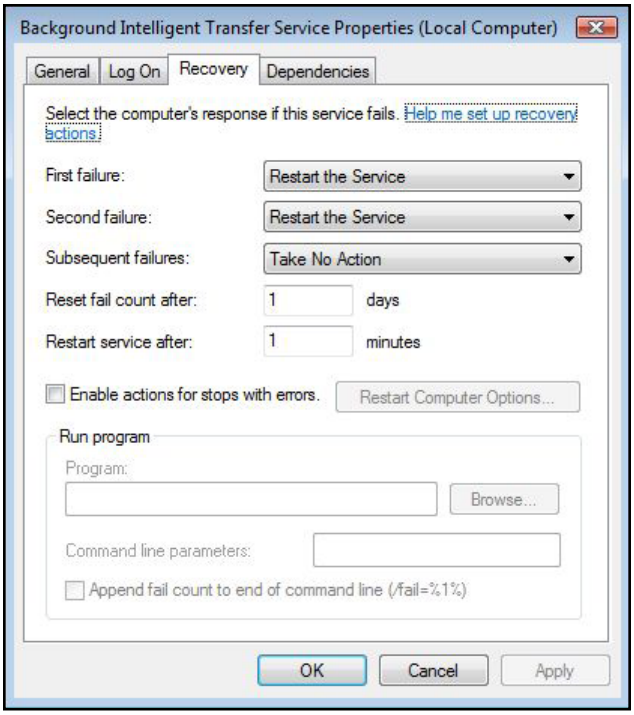

Figure 4-9: BITS Recovery tab

On the recovery tab, you can determine how you want to set the computer's response if the service should fail to start. Your choices are: take no action, restart the service, run a program or restart the computer. If you choose to restart the computer, the Restart Computer Options button becomes available and you can enter in the message current users will see before the computer restarts and you also configure how long you want the computer to wait before restarting. Choosing to Run A Program will allow you to chose which program to run, enter any command line parameters and decide if you want to append the fail count to the end of the command line.

You can also set what you want the computer to do if the service stops with errors.

Finally you can check which other services must be running before this service can successfully start by clicking the **Dependencies** tab.

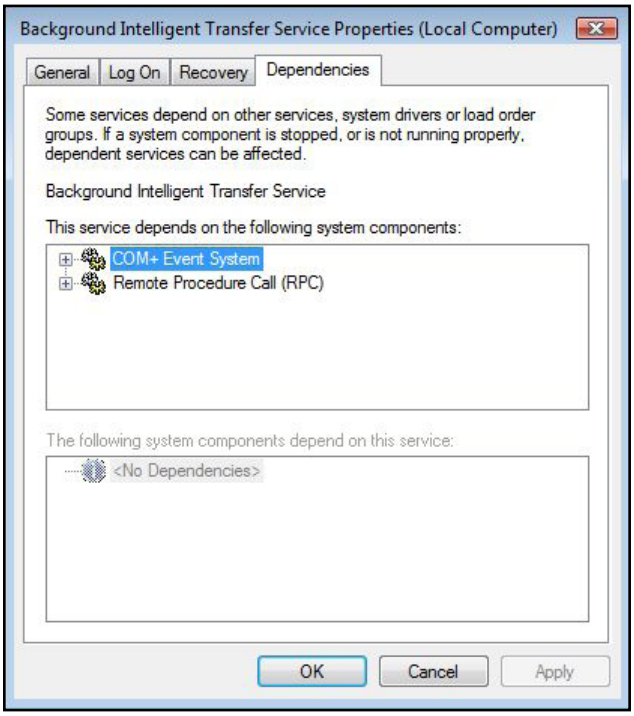

Figure 4-10: BITS Dependencies

Configure and Troubleshoot Windows Vista by Using the Network and Sharing Center

The Network and Sharing Center is available by clicking on Control Panel and then choosing **Network and Internet > Network and Sharing Center**. Here you can get a graphical look at your connections in addition to digging deeper into a problem. Included with the Network and Sharing Center is a one-stop troubleshoot and diagnose wizard that may help determine your issue.

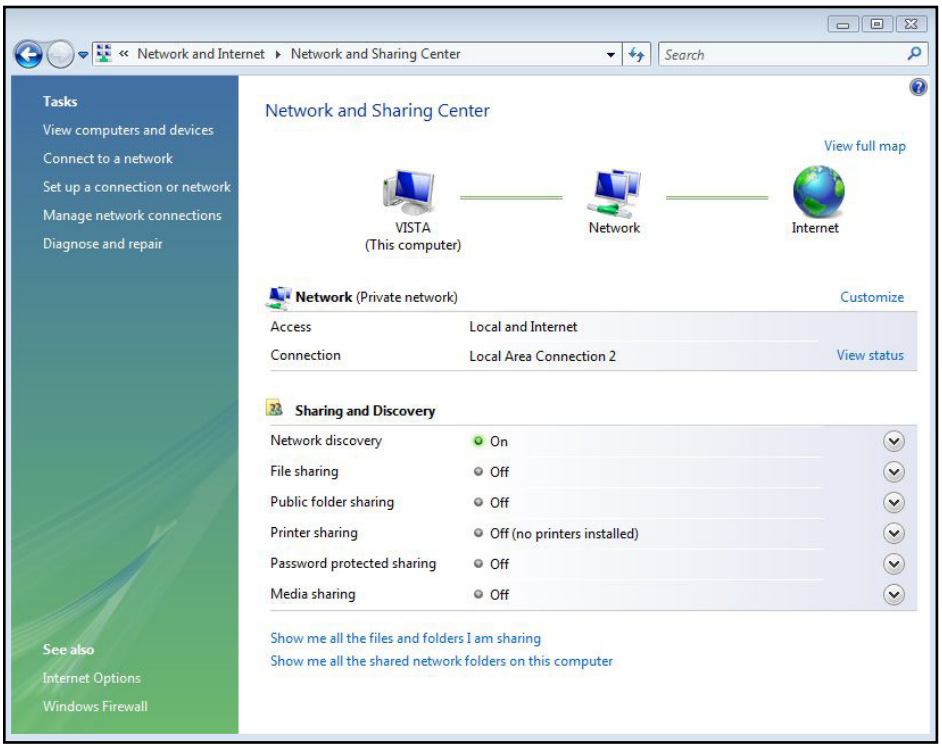

Figure 4-11: Network Sharing Center

At the top of the Network and Sharing center there is a graphical depiction of the computer's connection to the Internet and local network. You can see that the computer can successfully connect to both. If there were a problem with either connecting to the network or connecting to the Internet, it would be indicated with a red X. If, under Network (Private Network), you chose to View Status you would get the exact same properties screen shown above for the network connection.

To the left of the network map, you can choose to view all the computers and devices on the network. Underneath that, you can connect to a network. If your computer has not already established a connection to the network, this will guide you through the process.

If you choose to setup a connection or a network, you are given the four options shown below.

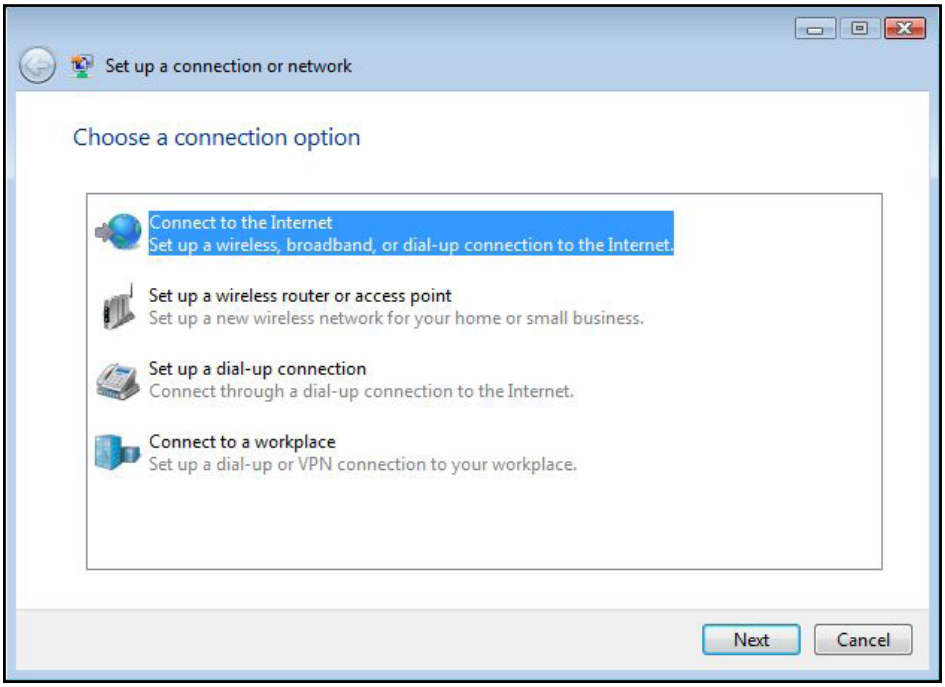

Figure 4-12: Setup Network Connection

Here, you can use a wizard to help you setup a wireless, broadband or dial-up connection to the Internet. The Wizard will determine if you are using broadband, wireless and dial-up and prompt you for information specific to that device. For example, some Broadband connections may require a user name and password to connect to the broadband backbone. You can also choose to allow other users of this computer to use the connection.

Setting up the Wireless network is covered in the next section. The other area to be aware of from this screen is to connect to a workplace. You can use that wizard to create a VPN connection, if needed.
From the home Network Sharing screen, clicking on **Diagnose and Repair** will start the Vista wizard that will attempt to solve whatever communication issue you are having; if the problem can't be solved automatically, the wizard will attempt to give you some insight into why the system is failing. Windows does its best to mask the process from the user, simply displaying a screen that says it is **Identifying the Problem**. When the identification is complete, the diagnostic screen will look like the screen shown below.

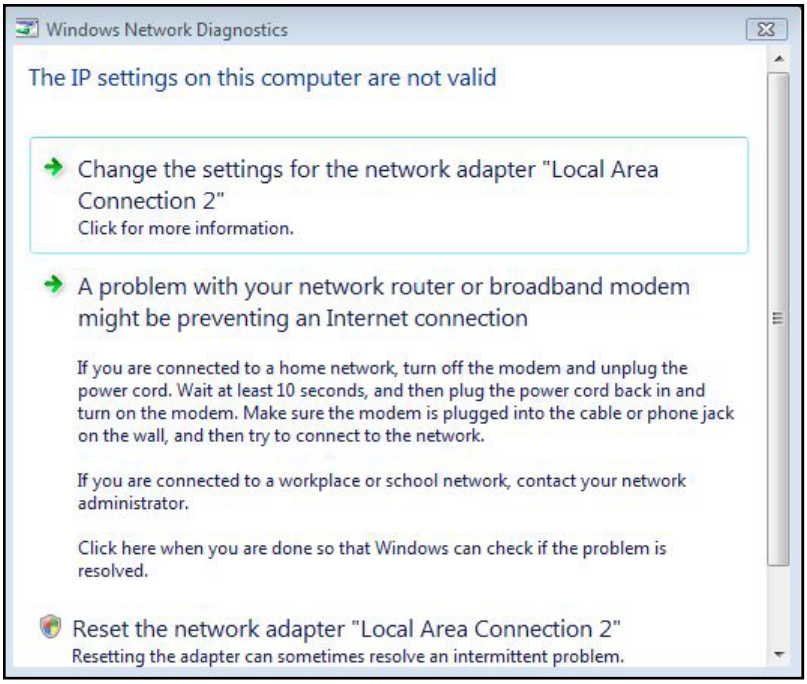

Figure 4-13: Windows Network Diagnostics

As you can see, Windows successfully discovered that the IP address on this computer had been configured incorrectly.

The Network Diagnostics wizard is not the be all end all of network troubleshooting. You should still be comfortable using the ipconfig, ping and tracert commands.

Configure and Troubleshoot Wireless Networking

If you are configuring a wireless infrastructure from scratch, you can start at the **Setup a connection or Network wizard**. It will search for any wireless (or wired) devices to start the configuration. Once discovered, the device will show up on the network map, as shown in the figure below.

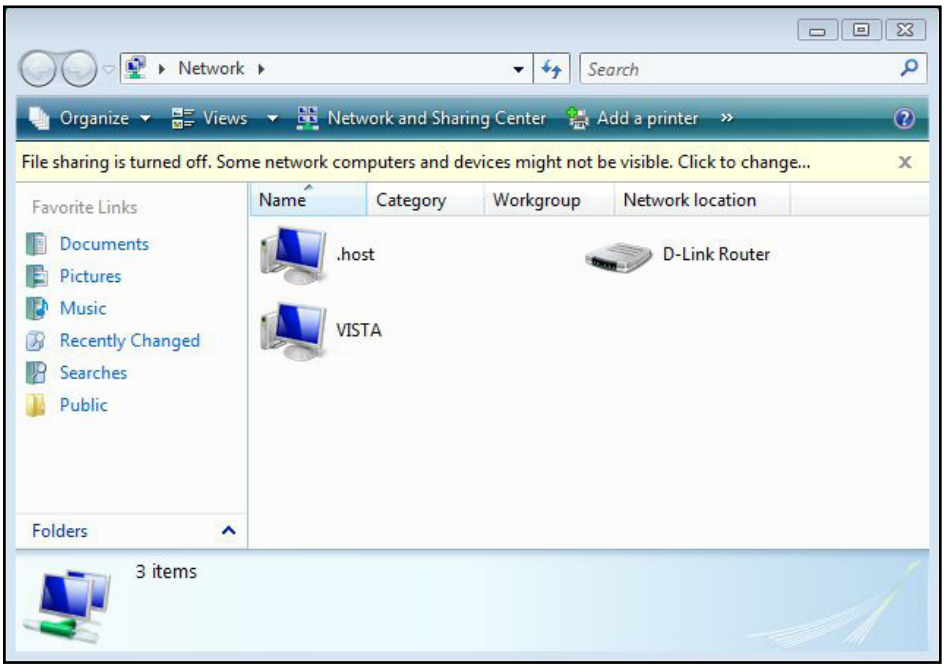

Figure 4-14: Network device discovery

When right clicking on the D-Link router, one of the options available is to go to the router web page, which brings up the logon screen shown below.

Figure 4-15: Router login page

Once properly authenticated, you can configure the wireless access point according to manufacturer's directions.

Setting up the wireless network card in Vista is similar to previous versions of Windows. You still need to know certain things, such as the SSID of the network and the way security is configured. The SSID settings at the wireless network card must match the SSID of the network. On some networks, this network name may be broadcast, so it will automatically show up and allow you to attempt to connect to it. Once you try to establish the connection, you may be prompted for the network password. This will be provided by the network administrator, or the user may have set it up when designing the network. Like all passwords, if the passwords match, you are allowed on the network. If the passwords do not match, you are not allowed on the network.

When troubleshooting wireless connectivity, make sure that all settings are exactly the same at the wireless access point and on the computer. The number one reason for failing to connect is an incorrect spelling or a mistype. Another reason is that the network hardware has to be Vista compatible. Remember that Microsoft has completely rewritten the IP protocol suite. Some of the Microsoft additions do not necessarily work well with older hardware. The solution is usually to remove all references to IPv6 and try again.

Troubleshoot File and Print Sharing

By default, both file sharing and printer sharing is disabled. The first task to complete is to enable them from the **Network and Sharing Center**.

Enable file sharing by clicking the down arrow on the right hand side of the main screen, across from the File Sharing indicator "light". Simply click the radio button next to Turn On and click Apply. If there are printers attached to the computer, you can share that printer by simply following the same steps next to Printer Sharing.

Once file sharing has successfully been turned on, the Network and Sharing Center will update to look like the figure below:

Figure 4-16: File Sharing Enabled

For a complete list of all the files and folders that are being shared from a particular computer, click the link at the bottom ("Show me all the files and folders I am sharing"). You can also see which folders are being shared on the network.

To share a file or a folder, use Windows Explorer to browse to the folder you want to share. Right click on the folder and choose Share. Click Apply and, after a few seconds, you will be prompted who you want to share with, or which account you want the people on your network to use to share the files or folders. An example is shown below.

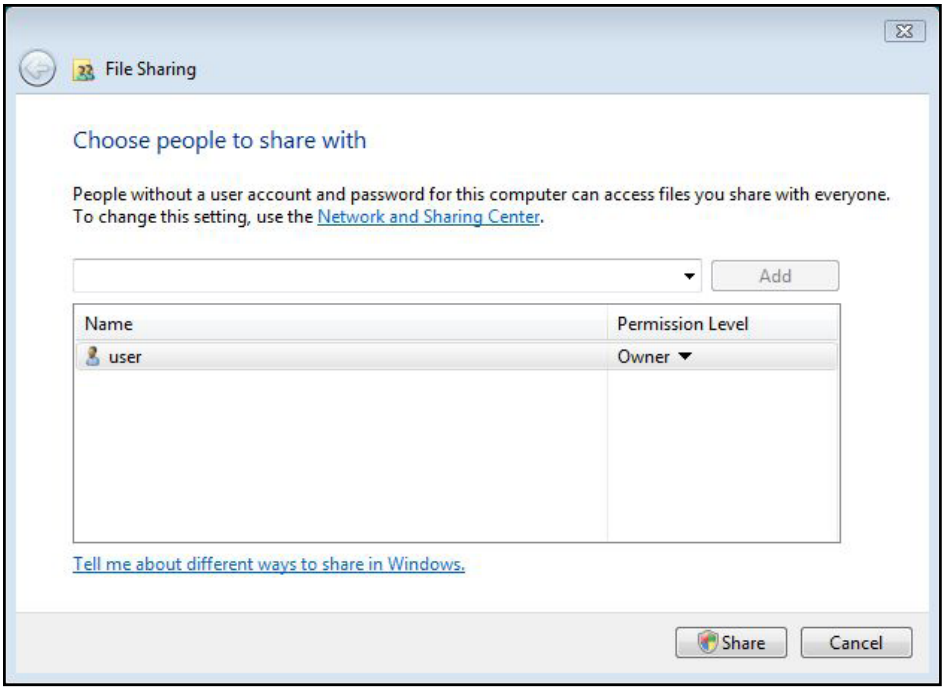

Figure 4-17: Choose people to share with

Once you click Share, the system will set up the properties to allow the folder or files to be accessed remotely. Once the process has been completed, you will receive a message that gives you the path to the shared folder which can be provided to those who you want to share the folder.

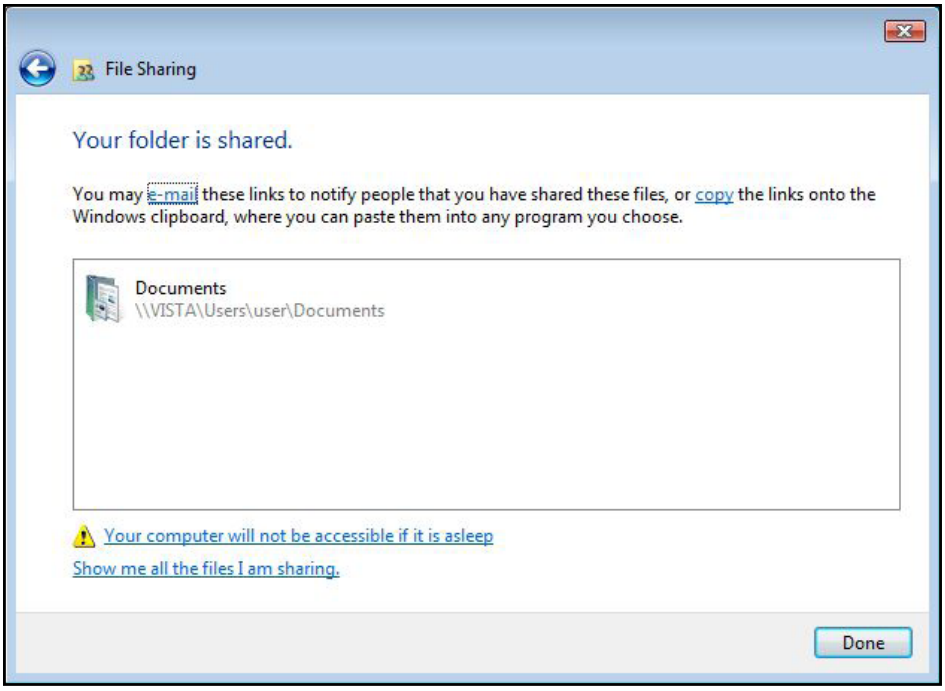

Figure 4-18: Completed File Sharing

Sharing a printer is accomplished in much the same way. Find a printer currently installed on the computer, **right click** on the printer and choose **Sharing**. If Sharing has not been enabled yet, Vista will prompt you to change the setting. Once sharing is enabled, the screen below allows you to share the printer and choose a share name. Note that you can also offload rendering responsibilities from the printer itself or the computer the printer is attached to by forcing the computer that is sending the print job to render the print job.

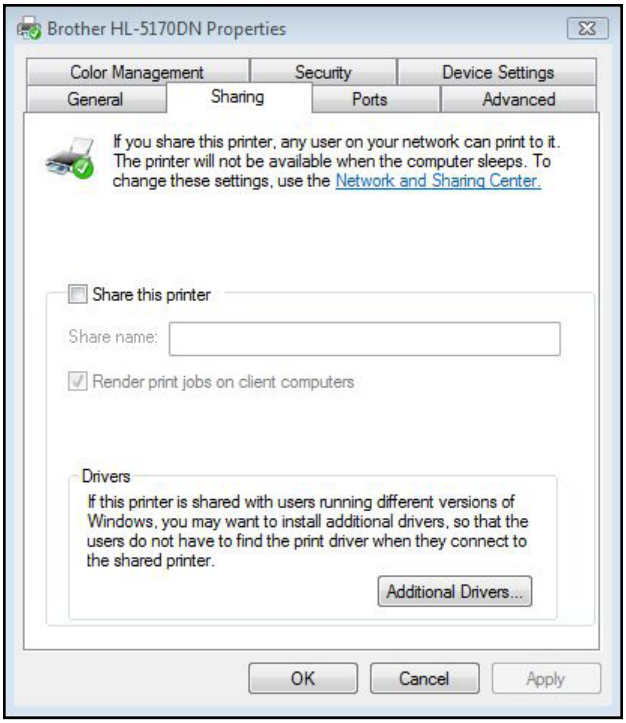

Figure 4-19: Printer sharing

Also note that if you have computers using this printer that are not running Vista, you can load the appropriate drivers. These drivers will then be installed when another user attaches to and installs the shared printer.

Configure Media Center

Media Center is not configured as part of the original installation of Vista. The first time you start Media Center, you are given the opportunity to choose an **Express** or **Custom Setup**.

Express setup puts Media Center in charge of downloading and managing your media files from the Internet. If you choose Custom Setup, you are allowed to make additional choices. With the custom setup, the setup process is accomplished in two parts. The first part sets up the Basic Media Center and the Optional settings lets Media Center setup your speakers, your music, your video and your picture libraries.

Figure 4-20: Media Center Setup Startup Screen

With the Custom Setup, you also get to view the Microsoft Privacy Statement and decide if you want to participate in the Customer Experience Improvement Program.

The media center will connect to the Internet to download things like cover art for DVD's and albums, information on music and movies and get information on television listings for recording. You can choose whether or not you want Media Center to perform these tasks.

Once Media Center is installed, configuration is accomplished from the Settings dialogue, shown below. When Media Center first loads, choose Settings to define how Media Center will work with your attached television, any pictures stored on your computer, any music, extenders like the Xbox 360 or allow you to setup libraries to store your information.

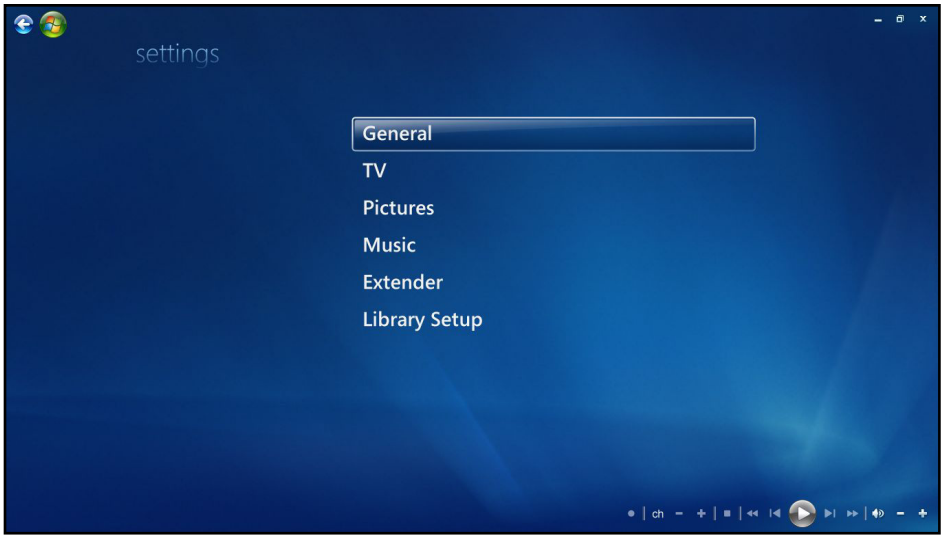

Figure 4-21: Media Center Settings tab

A quick look at the General Settings, shown below, establishes just how many things can be configured with Media Center.

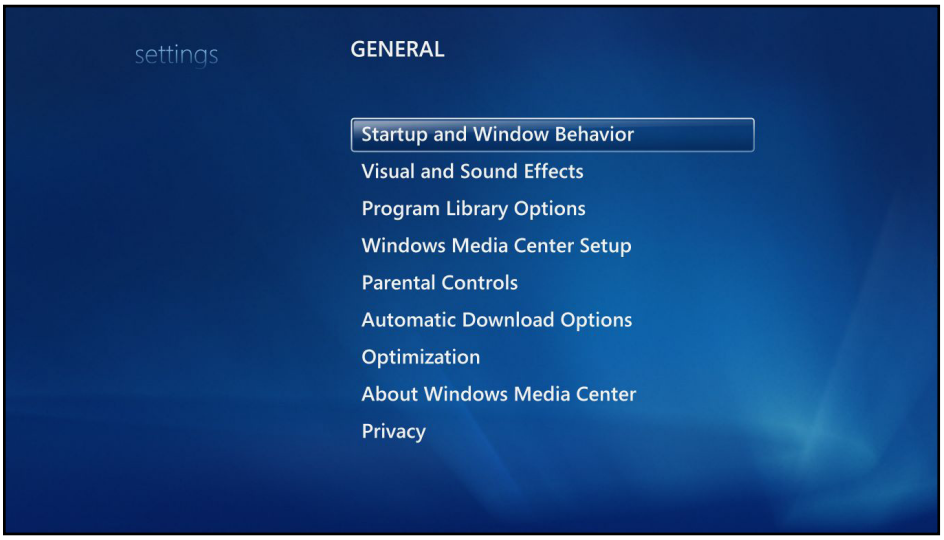

Figure 4-22: General Settings Tab

Startup and Window Behavior lets you setup you Internet Connection, setup your TV signal and configure your speakers.

Visual and Sound effects allows you to determine what transitions will look like, whether there will be sound effects when going from one choice to another and the color scheme you would like to use.

Program Library Options selections allow you to have applications in the Public Library and to control how the Media Center experience will be managed. You can also Hide Internet Security Warnings and get information on your media from Media Center.

With **Parental Access** controls, you can start by entering a four digit access code that will be used to block access to certain programs. Once the access code is defined, the parent can determine child-appropriate rating levels for television shows and movies.

With **Automatic Download** options, you can choose to download album art, television listings, etc, either automatically or manually.

Optimization allows you to schedule a time when optimization occurs on a daily basis.

Install, Configure and Troubleshoot Devices

This section is going to be handled a little differently from the previous sections of this guide, as each of the topics discussed overlaps. By definition, peripherals include mobile devices, digital cameras and camcorders, media devices and printer/fax/copier devices. Rather than handle them separately, they are going to be lumped together not by device type, but by connection type. With Vista computers, there are three ways to connect a device to the computer: using a **USB connection**, using a **blue-tooth connection** and using an **infrared connection**.

No matter what type of device you are connecting, there are some things you must do before beginning the connection process. The first is to **Read The Fine Manual** — in other words, read before attempting installation. Not only has Vista changed the operating system landscape, but peripherals hooking into Vista have changed the installation landscape. Gone are the days of simply plugging the device in and turning on the computer to have the operating system ask for the driver disk. Now, especially with printers, you install the software before attaching a new device. It will save you some serious heartache and probably a few swear words by reading the manual before you start the installation task. Also, if the instructions in the manual are not the same as the instructions in this study guide, the manual ALWAYS wins.
Updating a driver

One troubleshooting step that applies to all the technologies that are discussed in this section is updating a driver. If you have a problem with a device, one of the first things to check is if you have the latest (and, preferably, Vista-compatible) driver for the device. Drivers can be updated using Windows Update or manually.

Updating a driver with Windows Update

1. Navigate to **Start > All Programs > Windows Update**.
2. From the left pane, select **Check for updates**.
3. To see if there are updated drivers, select **View Available Updates**. Windows Update will show any new drivers that are available.
4. If updates are available, click the driver you would like to install and choose Install.

Manually Update a Driver

1. Log on as Administrator
2. Navigate to **Start > Control Panel > System and Maintenance > Device Manager**.
3. Locate the device to update and double click on the device name.
4. Choose the **Driver tab > Update Driver**.

Install a USB Device

To install a USB device on a Windows Vista computer, if the device has a power cord, connect the device to the power cord and turn the device on before connecting it to the computer.

Once the device is on, locate the USB port you want to use and plug the device into the USB port. Windows may be able to install a device driver automatically, in which case a message balloon will pop up notifying you that the device is connected and ready to use. If Vista cannot install the driver automatically, you will be prompted to insert a disk that has the driver. Once installation has been completed, check the device to ensure any necessary additional software is loaded.

If the device is not recognized by Windows, or if the driver disc has been misplaced, you can attempt to go to the manufacturer's web site and see if you can manually download and extract the driver.

Connecting or Disconnecting USB Device

Many of the devices that use USB connections can be plugged in or unplugged whenever convenient. If the device being removed is a storage device, make sure that the computer has finished saving the data before removing the device. Make sure the light stops flashing for several seconds before removing the disk. You can also check the Safely Remove Hardware icon that will appear in the lower right hand side of the taskbar. Clicking on that icon will show if the device may be removed without a loss to stored data. After the initial installation of a USB device, the device is port independent. It does not always have to be plugged into the same port.

Troubleshooting USB Devices

Since USB devices are plug-and-play, there is no configuration or control over the device. If there are issues with the USB device you can try the following:

1. Is there a problem with the device? You can check the status of the device by navigating to **Start > Control Panel > System and Maintenance > Device Manager**. Double click the appropriate device category and find the device in question. Right click and chose **Properties > General Tab** and check the **Device Status** box.
2. Is the driver the problem? Go the manufacturer's web site and see if a new driver is available.
3. Is the USB port defective? Try plugging the device into another port, or plug a known good device into the suspect port.
4. Are other devices pulling too much power from the hub?

One problem you may encounter with USB devices is a compatibility issue between high speed devices and non-high speed USB hubs. Many devices require the USB 2.0 hub to operate correctly. To find out if you have USB 2.0 port, follow the instructions above to get into Device Manager. Once in Device Manager, double click on the **Universal Serial Bus Controller**. If the word **Enhanced** is included in any of the controllers, you have USB 2.0 controllers.

If you have a USB video camera connected to the computer, you may get a message stating **Bandwidth Exceeded**. If this is the case, lower the camera resolution in the program that you are using to view the video stream.

Setup a Bluetooth Device

To set up a Bluetooth device, you may need to add a Bluetooth adapter, if your computer does not already have one. This is usually done by simply plugging the adapter into a USB port. Once the adapter is installed, then the device needs to be setup so the computer can find it. Turn the device on and check the manual to find out how to make the device discoverable. Once the device is in discoverable mode, install it by navigating to **Start > Control Panel > Hardware and Sound > Bluetooth Devices**. Click **Add** and follow the wizard.

To install a Bluetooth printer, navigate to **Start > Control Panel > Hardware and Sound > Printers**. Click **Add a Printer** and follow the wizard, indicating the printer is Bluetooth-enabled when appropriate. Troubleshoot Bluetooth devices

If the computer does not recognize the device, try the following:

1. Remove and reinstall the device
2. Make sure the device is turned on and the batteries are charged.
3. Make sure the adapter is installed and turned on and the device is in discoverable mode
4. Make sure the device has been installed correctly using the appropriate program.
5. Make sure the device is an appropriate distance from the computer, the device can be too far away or to close to the computer.

If the device and the computer cannot communicate, try the following:

1. Make sure the device is an appropriate distance from the computer; the device can be too far or too close to the computer — both situations can negatively impact the device.
2. The device may be too busy or have too many open connections.
3. Make sure the computer is trying to connect to the right device.
4. Does the device require a secure passkey? Has the passkey been typed correctly? Has the pas key time limit expired?
5. Is Windows configured to accept incoming Bluetooth connections?
6. Is the device close to other appliances that use radio frequencies, such as microwaves, cordless phones, remote controls or an 802.11 wireless network? These things could be creating interference.

If the connection is intermittent or slow, try the following:

1. Make sure the device is an appropriate distance from the computer; the device can be too far or too close to the computer — both situations can negatively impact the device.
2. The device may be too busy or have too many open connections.
3. Is the device close to other appliances that use radio frequencies, like microwaves, cordless phones, remote controls or an 802.11 wireless network? These things could be creating interference.
4. Check to make sure security has not been reset.

If a Bluetooth keyboard or mouse does not work, try the following:

1. Hook up a wired keyboard and mouse and remove and reinstall the Bluetooth devices.
2. Check to make sure both the keyboard and mouse have fresh batteries
3. Exchange passkeys with the keyboard. If the device is a mouse, select **Don't use a passkey** in the installation wizard.

If you don't remember the passkey for the Bluetooth device, try the following:

1. Reset the passkey to something you can remember.
2. Try the usual default passkeys of 0000 or 0001.
3. Contact the device's manufacturer.

Enable an Infrared Connection

To enable the infrared device, open **Device Manager**, double click **Infrared devices**, right click the appropriate device and choose **Enable**.

Troubleshooting Infrared Connections

1. Make sure the device is an appropriate distance from the computer; the device can be too far away or too close to the computer — both situations can negatively impact the device.
2. Make sure the devices infrared ports are lined up correctly.

Troubleshoot and Repair Windows Vista

Repair a Corrupted Operating System

If your system will not boot and you suspect the operating system has been corrupted, you can repair it by:

1. Inserting the Vista setup DVD.
2. Boot your PC from the DVD.
3. Choose the language that represents your keyboard and choose "Next".
4. You will receive a window that says Windows is ready to install. From here, select **Repair Your Computer** from the lower left corner of the window.
5. System Recovery will look for installed operating systems, once the correct OS has been found, select it and then click "Next".
6. A quick scan for common problems will start: if something wrong is found, you'll be prompted for an automatic system restore. Continue, and Vista will repair the corrupted operating system.

Remove Malware from a Client System

Starting with Vista, Microsoft has implemented a type of virus protection in the **Malicious Software Removal Tool**. Each month, the MSRT is updated as part of the usual Microsoft update process. The MSRT is a supplement to, not a replacement for, third party virus protection. Updates to the MSRT are only pushed out once a month. If a virus were released into the wild on update Tuesday, the Vista computer would be unprotected for at least a month before the next update was applied.

The MSRT is named **Defender** in Windows Vista. Starting Defender brings up the screen shown in the figure below. From that screen, you can start a system scan, view scan history, or use tools to configure if and when Defender will automatically scan the computer, what default actions it will take if it finds infected files, and whether real time protection is going to used or not. Under the Advanced Options, you can decide if you want to scan archived files, if a restore point should be created before the scan and if heuristics should be used as part of the scan process. You can also specify any files or areas that you do not want scanned.

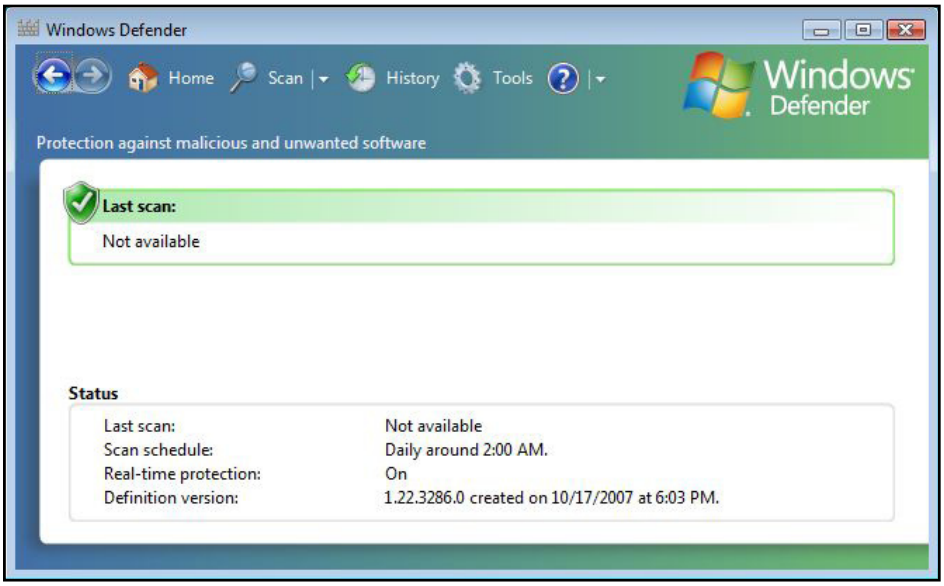

Figure 5-1: Windows Defender

Practice Questions

Chapter 1 Installing and Upgrading Windows Vista

1. A consumer has delivered her computer to you so that it can be upgraded to Windows Vista. She suggests that she wants the best Windows Vista experience possible without unnecessary upgrades. Here PC includes the following components. Which one of the following components must be upgraded or replaced in order to allow the consumer to have the Windows Vista Premium Ready experience?

   -3.4 GHz P4 processor -1.5 GB RAM -100 GB SATA hard drive -64 MB video card -32-bit sound card -Microsoft wireless wheel mouse -Microsoft wireless keyboard -XBOX 360 gaming controller

   Select the best answer.

   - ❍ A. XBOX 360 gaming controller
   - ❍ B. 64 MB video card
   - ❍ C. 100 GB SATA hard drive
   - ❍ D. Microsoft wireless mouse

2. You work as a PC support technician for a small consulting firm in the southwestern United States. A peer is configuring a computer for a customer so that the computer can dual-boot between Windows XP Professional and Windows Vista Ultimate. She tells you that she installed Windows Vista on the C: partition and then installed Windows XP on the D: partition because she read an Internet blog that suggested each operating system must be on a separate partition in order to install a dual-boot. However, the computer boots directly to Windows XP and she is never prompted to select Windows Vista. How can she resolve this dual-boot installation issue?

   Select the best answer.

   - ❍ A. Install both Windows Vista and Windows XP to the C: partition.
   - ❍ B. Install Windows XP first and then install Windows Vista.
   - ❍ C. Run the Dual-Boot Repair Wizard.
   - ❍ D. Edit the BOOT.INI file so that Windows XP is aware of Windows Vista.

3. You are attempting to install Windows Vista on a new PC. The PC has never had an operating system installed and has a P4 3.4 GHz processor with 2 GB of RAM. The hard drive is 200 GB in size and has two 100 GB partitions prepared for Windows Vista. During the installation process, you receive an error stating that there is a problem copying files. Which of the following may be the problem?

   Choose the two most likely problems.

   - ❑ A. The DVD or CD installation media is either scratched or dirt.
   - ❑ B. The system has multiple CD or DVD drives and the installation process is attempting to read the files from the wrong drive.
   - ❑ C. The system has too little memory.
   - ❑ D. There is a memory error.

Chapter 2 Post-Installation: Customize and Configure Settings

1. You are a consumer support technician in a retail store outlet. A consumer comes into the store and asks you how he can keep the Windows Sidebar in view at all times. The following steps are required, but they may or may not be in the appropriate order.

   A. Click Appearance and Personalization
   B. Click Windows Sidebar Properties
   C. Click Ok
   D. Click the Start button and select Control Panel
   E. Check the box that reads Sidebar is always on top of other windows

   Which answer reorders these steps appropriately?

   Select the best answer.

   - ❍ A. D,A,B,E,C
   - ❍ B. D,A,B,C,E
   - ❍ C. C,B,A,D,E
   - ❍ D. A,E,D,C,B

2. A consumer has purchased a laptop with a small display screen. She says that she wants to regain the screen space consumed by the Windows Sidebar; however, she does want to continue using the Sidebar. Currently, the Sidebar is configured to be always on top of other applications. Which of the following are valid solutions to this problem?

   Choose all that apply.

   - ❑ A. Disable the automatic starting of the Sidebar when Windows starts.
   - ❑ B. Reconfigure the Windows Sidebar so that it is not always on top of other Windows.
   - ❑ C. Enable applications to always be on top of the Windows Sidebar.
   - ❑ D. Force applications to stretch with desktop.

3. A customer calls into the call center where you work as a technical support professional. He says that the Windows Key + Tab shortcut is not engaging the 3D Flip feature as it is supposed to. His system has the following specifications:

   1.5 GB RAM
   200 GB Hard Drive
   128 MB Video Memory
   Windows Vista Home Basic
   DirectX 10 Compatible Video Card

   Which of these specifications is the reason for the non-working shortcut?

   Select the best answer.

   - ❍ A. 128 MB Video Memory
   - ❍ B. DirectX 10 Compatible Video Card
   - ❍ C. Windows Vista Home Basic
   - ❍ D. 1.5 GB RAM

Chapter 3 Configure Windows Vista Security

1. You work as a consumer support technician. Rachel has asked you to allow an application to communicate on the network. She is unsure which ports the application uses. Which of the following is the best method for allowing this application to communicate on the network?

   Select the best answer.

   - ❍ A. Launch Windows Defender. Click the Tools button and select the Software Explorer option. From here, select the application in question and click "Allow network access".
   - ❍ B. Launch Windows Firewall from the Control Panel. Select "Change Settings". Click the Exceptions tab. Click the Add program button to add an application exception.
   - ❍ C. Launch Windows Firewall from the Control Panel. Select "Change Settings". Click the Exceptions tab. Click the Add port button to add port exception. Allow all ports.
   - ❍ D. Run the application. When the error appears, click "Allow complete network access".

2. You work as a consumer support technician. Elaine asks you if there is a way for her to keep other people from connecting to her computer when she uses a public wireless hotspot. You inform her that there is a way to do this. She wants to know the simplest way to do it without deleting any existing firewall settings. What instructions do you give her?

   Select the best answer.

   - ❍ A. Right-click the wireless connection icon in the Notification Area and select block incoming wireless connections.
   - ❍ B. Launch the Windows Firewall applet from within the Control Panel. On the General tab, select the option to "Block all incoming connections".
   - ❍ C. Launch the Windows Firewall applet from within the Control Panel. On the Advanced tab, select the option to "Disable all incoming connections".
   - ❍ D. Launch the Windows Firewall and Advanced Security tool. Select File and then Save Inbound Rules within the application. Now, launch the Windows Firewall applet from within the Control Panel. On the General tab, select the option to "Block all incoming connections". When Elaine wants to go back to her old settings, she can reload them in Windows Firewall and Advanced Security.

3. You work as a consumer support technician. Frasier has a laptop that runs Windows Vista Home Premium. He wants to configure Windows Update so that updates will be downloaded automatically, but not install until he chooses. Which of the following are valid security concerns when configuring Windows Update in this way?

   Choose all that apply.

   - ❑ A. The user may forget to install the updates.
   - ❑ B. The user may selectively avoid installing important updates.
   - ❑ C. Some updates may not be available.
   - ❑ D. Security updates do not apply with this setting.

4. You work as a consumer support technician. Lori is buying a new desktop computer that will be shared among all of her children. They range in age from three years old to nine years old. She has two objectives. First, she only wants to allow the children to play games with a rating and second, she wants to allow them to play games that are rated Everyone and Early Childhood only. You instruct her to enable Parental controls and then select Block Games with No Rating in game restrictions. You also instruct her so select Everyone as therating that is ok for the children to play. Which of Lori's two objectives have been met?

   Select the best answer.

   - ❍ A. Neither.
   - ❍ B. Only the first objective.
   - ❍ C. Only the second objective.
   - ❍ D. Both.

5. You work as a consumer support technician. Joy has a computer that is shared by her children and herself. She wants to know what websites the children have been visiting on the Internet and she wants to know all of them. Parental controls have been enabled with default settings for the account used by the children. What action can she take to find the information she desires?

   Select the best answer.

   - ❍ A. In the Parental Controls applications, choose the account the children use. Select View Activity Reports and the look at the Top 10 websites here.
   - ❍ B. In the Parental Controls applications, choose the account the children use. Select View Activity Reports and then expand the Account Activity node for the children's account. Now expand the Web Browsing node and select Websites Visited.
   - ❍ C. Use the Event Viewer to track the websites that have been visited.
   - ❍ D. Use the Performance tool to track the websites being visited.

6. You work as a consumer support technician. Chuck wants to block all applications on the computer except one named MathWiz.exe for his 9 year old son as his first objective. His second objective is to ensure that his son can only log onto the computer from 4 to 7 PM.
   You suggest that he create an account for the son and then enable Parental Controls on this account. You then suggest that he modify the Time Restrictions so that the account can only logon during the hours of 4 to 7 PM. You finally suggest that he enter the Game Control section and "Block or Allow specific games" and that he ensures the allowance of MathWiz.exe. Which of Larry's objectives have been met?

   Select the best answer.

   - ❍ A. Both
   - ❍ B. Second Objective Only
   - ❍ C. First Objective Only
   - ❍ D. Neither.

7. You work as a consumer support technician. Brock wants to configure the User Account Control feature so that Administrators can do any tasks without any notifications or verifications as his first objective; however, he wants Standard Users to be unable to run any of the tasks that require elevated privileges as his second objective.
You tell him to set the policy named User Account Control: Admin Approval Mode For the Built-In Administrator Account to Disabled. Additionally, you tell him to configure the policy named User Account Control: Behavior of the Elevation Prompt for Standard Users to Automatically Deny Elevation Requests. Which of Brock's objectives will be met by this procedure?

   Select the best answer.

   - ❍ A. Neither.
   - ❍ B. The first objective.
   - ❍ C. The second objective.
   - ❍ D. Both.

Chapter 4 Configure, Troubleshoot, and Repair Networking

1. You work as a consumer support technician. Lori wants to create a dial-up incoming connection so that her friend can connect to her computer and transfer files using a modem. You tell her to open the Network and Sharing Center and click the Manage network connections link. From here, you instruct her to click the File menu and select New Incoming Connection; however, she tells you that there is no menu displayed on the screen. What does she need to do to create this incoming Dial-up Networking connection?

   Select the best answer.

   - ❍ A. Press the ALT key to enable the menus.
   - ❍ B. Use the Dial-Up Networking Configuration Management Wizard.
   - ❍ C. Right-click in the whitespace and select New Incoming Connection.
   - ❍ D. Run the command REGSRV32 DUN.DLL to enable Dial-up Networking.

2. George has already created an incoming dial-up connection so that Fred can connect to his computer through the modem. Both George and Fred now have high-speed Internet access and George wants to allow Fred to connect using a VPN connection instead of the dial-up connection, but he wants the dial-up connection to remain for backup purposes. What is the fasted way for George to configure his computer so that it will allow Fred to connect through a VPN connection?

   Select the best answer.

   - ❍ A. Open the Network and Sharing Center. Click the Manage network connections link. Click the File menu and select New Incoming Connection. Select the user account named Fred and click Next. Select the Through the Internet option and click Next. Configure the protocols as desired and click Allow Access.
   - ❍ B. Right-click the Incoming Connections object in the Network Connections folder and select Properties. On the General tab, check the box that reads, "Allow others to make private connections to my computer by tunneling through the Internet or other network."
   - ❍ C. Run VPN -allow from the command prompt.
   - ❍ D. Install Terminal Services on the Windows Vista machine and then configure Fred as a Terminal Services client.

3. Martha contacts you and indicates that she cannot seem to get to some websites on the Internet. She says that most websites work just fine, but a few that she uses regularly are not working. She has accessed these websites from another computer just fine. An example of a website that is not working is www.thesiteuseddaily.com and an example of a website that is working is www.google.com. What command prompt command may help resolve her problem?

   Select the best answer.

   - ❍ A. IPCONFIG /RENEW
   - ❍ B. IPCONFIG /FLUSHDNS
   - ❍ C. DEBUG -website:www.thesiteuseddaily.com
   - ❍ D. PING www.google.com

4. You work as a consumer support technician. Michael asks for your help with a problem he is having on his home network. He has a Windows Vista machine with sharing enabled and a Workgroup name of "HOME". The IP configuration is automatically received from his Internet router. He has another Windows XP computer that he wants to use to access shares on the Windows Vista computer. The Windows XP computer also receives its IP configuration from the Internet router automatically and it has a Workgroup name of "HOUSE". He says that he cannot see the shares on the Windows Vista computer and he cannot even see the Windows Vista computer itself. What should he change in this configuration?

   Select the best answer.

   - ❍ A. Use static IP addresses instead of dynamic IP addresses.
   - ❍ B. Configure both machines to use the same Workgroup name.
   - ❍ C. Upgrade the Windows XP computer to Windows Vista.
   - ❍ D. Install the Windows Vista Add-On Pack on the Windows XP computer.

5. You work as a consumer support technician. Blake has purchased a wireless router so that he can connect to the Internet throughout his home. When he connects his Windows Vista laptop to the wireless network while in the living room, the connection works fine; however, he loses connectivity when in his garage where he uses the Internet to look at instructions for building various items in his shop. The wireless router is in the living room and the garage is on the opposite side of his house with approximately eighty feet and four walls between them. What is the most likely cause of Blake's connection problems in the garage?

   Select the best answer.

   - ❍ A. He has configured the wireless connection settings improperly on his Windows Vista computer.
   - ❍ B. The garage is too far from the router and he is not receiving an acceptable signal for communications.
   - ❍ C. The wireless router is configured to use WEP.
   - ❍ D. The Windows Vista computer is configured to use WEP.

6. You work as a consumer support technician. LaDonna wants to share a TV program that she recorded on her Windows Vista Ultimate computer with a friend who also has a Windows Vista Ultimate computer. Assuming she has the right hardware in her computer, which of the following a valid methods for transferring the video from LaDonna's computer to her friend's computer?

   Choose all that apply.

   - ❑ A. Burn the video to a CD or DVD
   - ❑ B. Transfer using external hard drives
   - ❑ C. Transfer across the network
   - ❑ D. Transfer using SD memory sticks

Chapter 5 Install, Configure, and Troubleshoot Devices

1. You work as a consumer support technician. Ashlyn has purchased equipment to create podcasts from her home computer that is running Windows Vista Ultimate. She has purchased a preamp that allows her to connect multiple input devices, such as microphones and musical instruments, to her computer. The preamp is a USB device. She says that the microphones are not being detected by her audio recording software and that the preamp is not showing up in the Device Manager either. You check the vendor's website and see that you can download software for Windows Vista from the website and that the same software ships with the preamp. What should she do?

   Select the best answer.

   - ❍ A. Follow the instructions for installing the device driver that came with the preamp.
   - ❍ B. Purchase a new preamp that is compatible with Windows Vista.
   - ❍ C. Reboot the Windows Vista computer.
   - ❍ D. Install the Microsoft Windows Sound System.

2. What is the name of the software that can be downloaded from Microsoft and allows you to communicate with devices that run the Windows Mobile operating system?

   Select the best answer.

   - ❍ A. Windows Mobility Center
   - ❍ B. Windows Mobile Device Center
   - ❍ C. Microsoft ActiveSync
   - ❍ D. Windows Easy Transfer

3. You work as a consumer support technician. Tammy needs to import video and save it on her computer's hard drive. She needs to ensure that she can fit 10 hours of video on her hard drive and she has approximately 60 GB of free space. She chooses to save the video in the AVI format. Will she be able to save the ten hours of video and, if not, what format should she use and why?

   Select the best answer.

   - ❍ A. No. She should use the WMV format because it only requires approximately 1 GB of storage space per hour of video.
   - ❍ B. Yes.
   - ❍ C. No. She should use WMV because it only requires approximately 6 GB of storage space per hour of video.
   - ❍ D. No. She should use WMV because it only requires approximately 3 GB of storage space per hour of video.

4. You work as a consumer support technician. Mary Jane says that she is trying to print to a printer that has worked in the past from her Windows Vista computer. She says that she is receiving an error saying that the printer is unavailable when she tries to print. Which of the following troubleshooting actions should be taken?

   Choose all that apply.

   - ❑ A. Ensure the printer cable is connected to the computer.
   - ❑ B. Ensure the printer is turned on.
   - ❑ C. Ensure that the cable is not damaged.
   - ❑ D. Ensure that the printer is compatible with the application.

Chapter 6 Troubleshoot and Repair Windows Vista

1. You work as a consumer support technician. Josh is attempting to access a file that is stored on a NTFS volume. Josh has Full Control permissions on the folder in which the file is stored and the file has no explicit permissions defined. When Josh attempts to open the file in Notepad, he receives an access denied error. What is the likely solution to this problem?

   Select the best answer.

   - ❍ A. Run Notepad as an administrator
   - ❍ B. Grant Josh Full Control permission on the file
   - ❍ C. Run the DEFRAG utility against the file
   - ❍ D. Run the CACLS command to change permissions on the file

2. You work as a consumer support technician. Mark says that his screen saver will not start after the time passes that he has configured in the screen saver settings. You ask if a blue icon is in the notification area that looks like a person with two lines to the right of the person's head. He indicates that such an icon is displayed. What is the problem on his Windows Vista computer?

   Select the best answer.

   - ❍ A. Presentation Settings are on
   - ❍ B. The No Screen Saver policy is enabled
   - ❍ C. The Visual Effects are set to Adjust for best performance
   - ❍ D. The BluRay DISC manager is enabled

Answers and Explanations

Chapter 1

1. Answer: B

Explanation A. Incorrect. The XBOX 360 gaming controller works fine with Windows Vista and will provide an excellent gaming experience. This component does not need to be upgraded or replaced.

Explanation B. Correct. The 64 MB video card will not allow for the use of the Windows Aero interface and even the 128 MB video card suggested as the Premium Ready minimum will not give you good performance. You will likely upgrade or replace the video card so that it has at least 256 MB RAM.

Explanation C. Incorrect. This hard drive should be fast enough and will provide enough space to run Windows Vista well depending on the user's applications and data size.

Explanation D. Incorrect. The Microsoft wireless mouse will work fine with Window Vista and will not need to be replaced.

2. Answer: B

Explanation A. Incorrect. The blog was actually correct. You must install Windows Vista and Windows XP to separate partitions. It does not matter which OS is on which partition, but they must be separate.

Explanation B. Correct. By installing Windows XP second, the installation process overwrote the Vista boot information with the XP boot information. While Vista knows how to dual-boot with Windows XP, Windows XP does not see that Vista is installed on the computer. Installing Windows XP first solves the problem since Windows Vista can configure the dual-boot settings that are needed during its installation. You may also use the BOOTSECT.EXE utility on the Vista DVD to replace the Windows XP boot sector with the Windows Vista boot sector. Once this is done, the computer will boot automatically into Windows Vista. You can then use the BCDEDIT command, from within Windows Vista, to add Windows XP to the Vista Boot Configuration Data (BCD).

Explanation C. Incorrect. There is no such tool in Windows Vista or Windows XP.

Explanation D. Incorrect. There is really no way to make Windows XP aware of Windows Vista since Vista was released later. You must make Windows Vista aware of Windows XP. This is most easily done by installing Windows Vista after Windows XP in a dual-boot configuration.

3. Answers: A, B

Explanation A. Correct. Quite often file copy errors are a symptom of a dirty, or scratched disc. If it is dirty, cleaning the disc will likely solve the problem. If it is scratched, you may be able to repair it or you may have to replace it.

Explanation B. Correct. If the disc is not damaged or dirty, you may need to disable one of the drives in the system BIOS in order to overcome this problem. You can enable the drive again once the installation is complete.

Explanation C. Incorrect. 2 GB of RAM is more than enough to install Windows Vista. If there was not enough memory in the system, the installation process would not have reached the stage of file copy.

Explanation D. Incorrect. Memory can cause many problems, but the installation routine uses little memory and it is not likely to be the cause of file copy errors.

Chapter 2

1. Answer: A

Explanation A. Correct. This sequence of events leads to the configuration change desired.

Explanation B. Incorrect. This sequence of events is out of order and will not lead to the configuration change desired.

Explanation C. Incorrect. This sequence of events is out of order and will not lead to the configuration change desired.

Explanation D. Incorrect. This sequence of events is out of order and will not lead to the configuration change desired.

2. Answers: A, B

Explanation A. Correct. You can disable the automatic starting of the Sidebar in the Properties dialog of the Sidebar by right-clicking on the Sidebar and selecting Properties.

Explanation B. Correct. To do this, right-click on the Sidebar and select Properties. From here, uncheck the option that reads, "Sidebar is always on top of other Windows."

Explanation C. Incorrect. You must disable the Windows Sidebar from being on top of other windows and not the other way around.

Explanation D. Incorrect. There is no such setting.

3. Answer: C

Explanation A. Incorrect. 128 MB of video memory is sufficient to allow for the use of Windows Aero and, therefore, the 3D Flip feature. This is not the cause of the non-working shortcut.

Explanation B. Incorrect. A DirectX10 compatible video card is ideal for use with Windows Vista. This is not the cause of the non-working shortcut.

Explanation C. Correct. Windows Vista Home Basic does not support the Windows Aero interface and, therefore, the 3D Flip feature is not supported.

Explanation D. Incorrect. The Windows Aero interface and the 3D Flip feature will work with even less memory. This is not the cause of the non-working shortcut.

Chapter 3

1. Answer: B

Explanation A. Incorrect. There is no "Allow network access" option in Windows Defender. You can only select "Block incoming network connections" from here, which is the opposite of Rachel's request.

Explanation B. Correct. Adding an application exception allows the single application to receive communications from the network and does not require the specification of a particular TCP port.

Explanation C. Incorrect. Allowing all ports would be the same as completely disabling the firewall. This would be very insecure.

Explanation D. Incorrect. There will be no such error. If a dialog appears, it will allow you to unblock or keep blocking, but this is a temporary solution.

2. Answer: B

Explanation A. Incorrect. There is no such option.

Explanation B. Correct. Selecting this option allows Elaine to temporarily block all incoming connections, but it does not remove any exceptions she may have created. She can later deselect the option to go back to her original firewall settings.

Explanation C. Incorrect. There is no such option.

Explanation D. Incorrect. You can export a list of firewall rules in the Windows Firewall and Advanced Security tool, but you cannot reload such a list. This would be unnecessary anyway since you can simply block and then unblock all incoming connections.

3. Answers: A, B

Explanation A. Correct. This is a valid security concern. Even though the updates are downloaded automatically, the user may not install them before their system is exposed to known security threats.

Explanation B. Correct. The user may not realize the impact of some updates and may choose not to install them. This may leave the system more vulnerable that it would otherwise be.

Explanation C. Incorrect. All updates are available whether they are installed automatically or not.

Explanation D. Incorrect. Security updates, as well as all others, can apply with this setting. They simply are not installed automatically.

4. Answer: D

Explanation A. Incorrect. Both objectives are achieved by these steps.

Explanation B. Incorrect. The second objective is also achieved.

Explanation C. Incorrect. The first objective is also achieved.

Explanation D. Correct. By selecting Everyone, you are also selecting any lower rated games, which in this case includes Early Childhood.

5. Answer: B

Explanation A. Incorrect. This will only show Joy the top 10 sites. She wants to see all the sites.

Explanation B. Correct. In this location, Joy can view all of the websites visited instead of just the top 10.

Explanation C. Incorrect. The Event Viewer logs application and system events as well as security incidents, but it does not log every website that has been visited on the computer.

Explanation D. Incorrect. The Performance tool is used to measure the performance of various components within your system, but it is not used to track web browsing activity.

6. Answer: B

Explanation A. Incorrect. Only the second objective has been met. The child will only be able to logon from 4 to 7 PM, but he will be able to run other programs as well as the MathWiz.exe application.

Explanation B. Correct. These suggestions will only ensure that the child cannot logon outside the hours of 4 to 7 PM.

Explanation C. Incorrect. With these suggestions, the child will be able to run programs other than the MathWiz.exe application.

Explanation D. Incorrect. The second objective will be fully met, but the first objective will not.

7. Answer: C

Explanation A. Incorrect. The second objective will be met.

Explanation B. Incorrect. In order to meet the first objective, the policy named User Account Control: Behavior of the elevation prompt for administrators in Admin Approval Mode should be set to Elevate without prompting.

Explanation C. Correct. The second objective is met by automatically denying elevation requests for Standard Users.

Explanation D. Incorrect. The first objective will not be met.

Chapter 4

1. Answer: A

Explanation A. Correct. The menus do not show up in the Windows Vista interface with the default settings, but you can display them with a quick press of the ALT.

Explanation B. Incorrect. There is no such wizard. Lori's problem is simply that the menus are not being displayed. She can press ALT to display them.

Explanation C. Incorrect. You can only get to the New Incoming Connection option through the File menu. If the File menu is not displayed, press the ALT key to display it.

Explanation D. Incorrect. Dial-up Networking is available by default, but the menus are simply not displayed. Press the ALT key to display the menus.

2. Answer: B

Explanation A. Incorrect. All of these steps result in the same outcome as right-clicking the existing Incoming Connections object and selecting Properties. Then you would check the box that says, "Allow others to make private connections to my computer by tunneling through the Internet or other network".

Explanation B. Correct. Simply checking this box allows for the same connection configuration to be used for a VPN tunnel instead of and as well as dial-up connections.

Explanation C. Incorrect. There is no such command.

Explanation D. Incorrect. Terminal Services is used on Windows Servers and is not a required install on Windows Vista machines in order to provide VPN connectivity. Terminal Services is a feature that allows remote control of the desktop as opposed to remote network connectivity.

3. Answer: B

Explanation A. Incorrect. She says that other websites are working fine so her network configuration is accurate. This command would only refresh the network settings for the Internet Protocol (IP).

Explanation B. Correct. The DNS cache sometimes causes problems like those experienced by Martha. This command will empty the cache and force new DNS lookups to be processed.

Explanation C. Incorrect. There is no such command.

Explanation D. Incorrect. This command will not resolve the issue and is not really valuable in troubleshooting this scenario because www.google.com is already working; therefore, this PING command will work fine and will reveal no new information.

4. Answer: B

Explanation A. Incorrect. You can use dynamic IP addresses and still access shares on remote computers. Since the IP configuration for both machines is coming from a single router, they should be able to communicate without problems.

Explanation B. Correct. The Windows XP machine is using a different Workgroup name than the Windows Vista machine and this is preventing Michael from seeing the Windows Vista computer.

Explanation C. Incorrect. Windows XP computers can certainly communicate with Windows Vista computers.

Explanation D. Incorrect. There is no such product.

5. Answer: B

Explanation A. Incorrect. The computer connects fine in the living room where the router is located. This indicates that the connection parameters are correct.

Explanation B. Correct. Blake may need to install another router or purchase a different one with more output power; but most likely he will need to implement another router since he is attempting to connect from eighty feet away and through four walls.

Explanation C. Incorrect. While using WEP may be a security concern, it should not be impacting connectivity.

Explanation D. Incorrect. WEP is a security concern, but should not impact connectivity in this way.

6. Answers: A, B, C, D

Explanation A. Correct. Windows Vista can burn Windows Media Center content to CDs or DVDs for transfer to other computers.

Explanation B. Correct. You can copy the media to an external hard drive and then connect the drive to the friend's computer and copy the files.

Explanation C. Correct. You can transfer the data across the network though this may be a slower method depending on the speed of the network connections.

Explanation D. Correct. Assuming the data will fit on the SD stick you can use this method.

Chapter 5

1. Answer: A

Explanation A. Correct. She has not mentioned installing the drivers and a complicated USB device like this will usually require specific drivers in order to function properly.

Explanation B. Incorrect. This preamp is compatible. It simply needs the software (including device drivers) in order to operate properly.

Explanation C. Incorrect. While a reboot may be required, there is no indication that she has installed the devices drivers or that a reboot would help resolve this issue.

Explanation D. Incorrect. This was an old software package for Windows 3.1 and it is no longer needed in modern Windows environments.

2. Answer: B

Explanation A. Incorrect. The Windows Mobility Center comes with Windows Vista and allows for synchronization of data between Windows Vista and mobile PCs, but does not allow you to communicate with these devices for purposes of software installation or other modifications.

Explanation B. Correct. This downloadable software allows you to manage the files on your mobile device, install and uninstall applications, and work with other settings.

Explanation C. Incorrect. This software is no longer used with Windows Vista.

Explanation D. Incorrect. This software is used to transfer files and settings from one computer to another, but is not used to manage mobile devices.

3. Answer: A

Explanation A. Correct. AVI videos consume about 13 GB of space per hour of video while WMV videos consume about 1 GB of space per hour of video.

Explanation B. Incorrect. Since AVI files use about 13 GB of space per hour of video, this would require about 130 GB of free space, which Tammy does not have.

Explanation C. Incorrect. WMV videos require about 1 GB of space for every hour of video.

Explanation D. Incorrect. WMV videos require about 1 GB of space for every hour of video.

4. Answers: A, B, C

Explanation A. Correct. USB cables, in particular, frequently come partly unplugged. Other cables can also be disconnected or damaged.

Explanation B. Correct. It is very common for an individual to forget that he or she has turned off a printer which results in the inability to print.

Explanation C. Correct. Cables can be damaged over time and may cease to function.

Explanation D. Incorrect. If a printer works with Windows Vista, it is likely to work with any and all applications that can also run on Windows Vista.

Chapter 6

1. Answer: A

Explanation A. Correct. User Account Control (UAC) can cause access denied error messages when attempting to open file to which you have access. By running the application you are using to access the file as an administrator, you will remedy this problem.

Explanation B. Incorrect. The file will inherit the permissions of the parent folder since there are no explicit permissions on the file.

Explanation C. Incorrect. The DEFRAG command is used to defragment files and will not remedy access denied errors. In addition, the DEFRAG command must be run against an entire volume and not against a single file.

Explanation D. Incorrect. The file will inherit the permissions of the parent folder since there are no explicit permissions on the file.

2. Answer: A

Explanation A. Correct. In the Windows Mobility Center, you can turn on Presentation Settings so that the screen saver does not start in the middle of the presentation. Presentation Settings will also lower the volume and possibly change the desktop background.

Explanation B. Incorrect. Policies do not cause icons to display in the task tray when they impact the screen saver.

Explanation C. Incorrect. This will turn of many features, but it will not disable the screen saver.

Explanation D. Incorrect. There is no such feature.