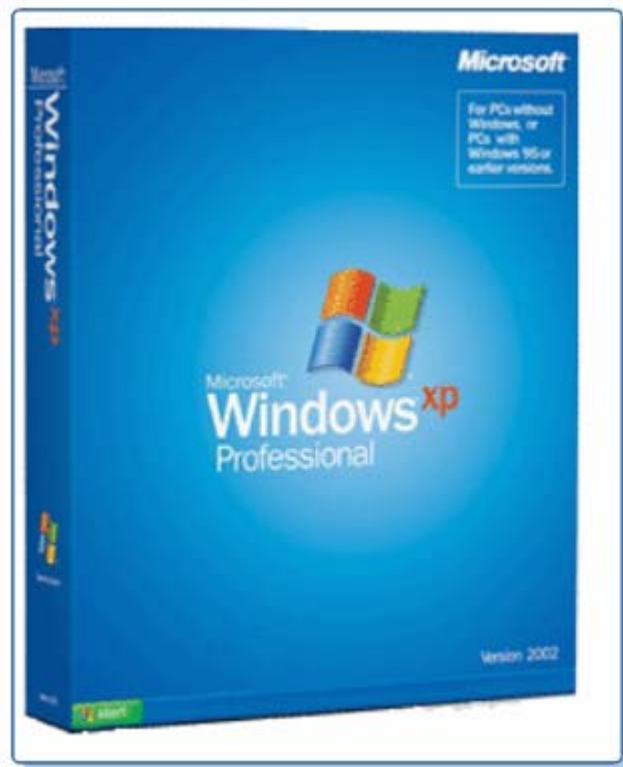


CISCO

IT Essentials I

Chapter 7

Windows XP



Chapter 7 Study Guide

Windows XP Operating System

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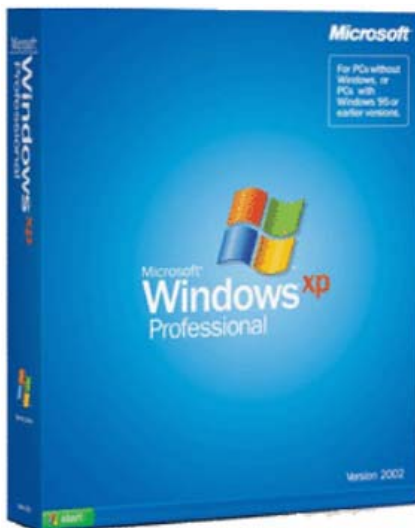
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Windows XP is designed as an operating system for both the home and office. Microsoft has released four different types of the XP operating system including:

1. Home Edition
2. a Media Center Edition
3. a 32-bit Professional Edition that is suitable for a large corporation or business environment
4. a 64-bit Edition created for businesses with specialized and technical applications.

There is also a version for the tablet PC that is not covered.

Windows XP Home Edition is a less-expensive version, and is typically marketed to users and customers that use PCs in their homes and very small businesses. XP Home Edition is intended for inexperienced users who do not need to connect to corporate networks and do not require the extra security options that Windows XP Professional contains. Anyone who logs on to a Home Edition machine will have full control of the operating system.



The XP Professional operating system includes everything that the Home Edition provides, plus all the networking and security components that are required to join a Windows NT, 2000, or XP domain in a corporate network. Windows XP Professional contains several features that are not included in Windows XP Home Edition:

Power user – The new Remote Desktop feature allows mobile users to remotely access their corporate desktop. System administrators now have the ability to remotely administer clients on a network. Automated System Recovery (ASR) aids in system recovery from a catastrophic error that might render the system unbootable. Windows XP Professional, like Windows 2000 Professional, supports dynamic disks. The Home Edition supports only the basic disk type. Home Edition does not include the Internet Information Services (IIS) Web server software found in the Windows XP Professional Edition..

Management – Windows XP Professional provides added operating system management features.

Roaming profiles – With Windows XP Professional, users have the ability to log on to any computer on the network and automatically receive their customized settings with Windows XP Professional. The user profile is stored in a shared network folder.

Corporate deployment – Windows XP Professional is designed for use in corporate networks, and contains support for multiple languages. XP professional also provides Sysprep support, which is used to install the operating system on multiple machines in a large or corporate network.

XP Professional edition also supports dual processors

Windows XP Professional 64-bit is Microsoft first 64-bit operating system. This operating system is designed to accommodate specialized, technical applications. For example, digital content creators including digital artists, 3D animators, gaming developers, and engineers can view more complex models and simulations to improve their product. Financial applications are also benefited by the ability to calculate large sets of data in real time.

Windows XP 64-Bit Edition is also designed to address the most demanding business needs of the Internet-based world including e-commerce, data mining, online transaction processing, memory-intensive high-end graphics, complex mathematics, and high-performance multimedia applications.

A system built around an Intel Itanium 64-bit processor must be used in conjunction with a 64-bit version of Windows XP Professional. A 64-bit motherboard and chip set are required for the Windows XP 64-bit Edition.

System device	Minimum	Recommended
Processor 64-bit	733 MHz Intel Itanium	800 MHz Intel Itanium
Memory	1 GB RAM	1 GB RAM
Video	VGA	3-D graphics

XP Media Center Edition is a new Microsoft edition that is pre-installed only on Media Center PCs. It is designed to fulfill the needs of those users who want a powerful digital media center in their home. The media center provides users with the ability to watch live television, record TV programs, listen to digital music, view slideshows and picture albums, and play DVDs all from one location.

- Advanced graphics card
- TV tuner to capture a cable, antenna or satellite signal and display it on the monitor
- Hardware encoder to record the captured TV signal to the computers hard disk
- Digital audio output that allows the digital audio of the PC to integrate into the existing home entertainment system
-

A Media Center remote control that communicates with the computer through an infrared sensor is also included.



Installation Overview

The Files and Settings Transfer Wizard allows the user to migrate settings and files from an old computer to a new computer. Another important feature for Windows XP is the User State Migration Tool (USMT). It is similar to the Files and Settings Transfer Wizard. The USMT is used by IT administrators who are performing large deployments of Windows XP Professional in a corporate environment. USMT provides the same functionality as the wizard on a large scale for the purpose of migrating multiple users.

Hardware Requirements

Windows XP may require more hardware capabilities than previous versions of Windows to support newer hardware devices and allow the operating system to function efficiently.

Prior to installing Windows XP, ensure that the system hardware is capable of running the specific XP version. Microsoft has recommended several requirements prior to installing the Windows XP operating system:

- A Pentium 233-MHz processor or faster, with 300 MHz recommended
- At least 64 MB of RAM, with 128 MB recommended
- At least 1.5 GB of available hard disk space
- A CD-ROM or DVD-ROM drive
- A keyboard and a Microsoft Mouse, or some other compatible pointing device
- A video adapter and monitor with Super VGA resolution of 800 x 600 or higher
- A sound card
- Speakers or headphones

Windows XP offers many new features over Windows 2000 and Windows 9x. For reliability, Windows XP was built on the base code of Windows NT and Windows 2000. Since Windows is moving toward the .NET environment, Windows XP has been upgraded with smart card capabilities. It includes support for smart card logon to terminal server session hosted on a Windows.NET server.

Requirements For Installing XP

- Make sure the computer is ready for Windows XP by checking the system requirements.
- Check the Microsoft website to make sure the version of Windows is eligible for an upgrade.
- Use the Compatibility tool or download the Upgrade Advisor to ensure that the system, devices, and software will work with XP. The updated drivers can be loaded for any component that is not compatible before the installation, which will save time.
- Review the documentation before starting any new installation. Microsoft provides “Getting Started” guides on their website.
- Run anti-virus software before starting the installation.

Three types of installation for Windows XP:

1. Clean install – sets up a fresh copy of Windows XP. This new copy will completely replace any previous versions of Windows installed on the computer.

2. Upgrading an existing version – will convert Windows 98, Windows 98 Second Edition, or Windows Me into Windows XP Home or Professional Edition. Windows XP Professional can be upgraded from Windows NT Workstation 4.0 with Service Pack 6, or Windows 2000 Professional with or without the service packs. Windows XP will not upgrade from Windows 3.1 or 95. A clean install must be preformed.

3. Dual boot installation – can be used when the user desires to preserve the currently installed version of Windows. The new version of Windows needs to be installed on a new partition separate from the current version. When the installation is complete, the user will be able to choose the operating system from which to boot.

Installation Steps—Windows XP

1. File Copy

This step copies the Windows Setup files to a folder on the partition where they can run when the system is re-started. If the system is booted from a CD, the Setup skips this step and copies files directly from the CD.

2. Text Mode Setup

During a clean installation, the user selects the partition where the Windows XP system files will be installed. The partition can be created and formatted in this step.

3. GUI Mode Setup

Windows Setup uses a graphical wizard to guide the user through the regional settings, product key, computer name, and administrator password.

4. Windows Welcome

As the last portion of the Setup process, the user has the option to create user accounts and activate Windows before using it for the first time.

XP Setup Options

Windows XP installation starts with options to set up XP or to repair XP.

The next option in the setup process is to partition and format the hard drive. Partitioning is not always necessary if a suitable partition already exists, but if a partition needs to be created then it is done during the install. If a partition needs to be created, set a smaller partition to speed up the installation. In the lab for Installing XP, it is recommended that the partition be 4 GB. The recommended file system for Windows XP Professional is NTFS (NT File System). Remember FAT32 may also be used.

The system will automatically start copying files once partitioning and formatting is complete. This allows the installation wizard to provide step-by-step instructions for the rest of the process. Options for language, time/day settings, and network settings must be entered before the installation can continue. During the installation, Windows XP displays information on new features and the time remaining to complete.

If the installation is for a computer on a network, a user name and password provided by the network administrator will be required in order to connect.

Upgrading to Windows XP

Windows XP Home Edition or Professional Edition can upgrade from Windows 98, Windows 98 SE, or Windows Me. Windows NT workstation 4.0 with service pack 6, and Windows 2000 Professional can also upgrade to Windows XP Professional. Windows 3.1 and Windows 95 cannot upgrade. These operating systems must be removed first, and a clean install must take place.

Upgrade from Windows NT4 or Windows 2000 Professional

In order to upgrade to Windows XP, boot up the current version of Windows and insert the Windows XP CD. Choose to install Windows XP. The Setup Wizard will display. This wizard is designed to make the installation an easy process. On the first page of the Setup Wizard, select Upgrade and click Next. Figure shows the first page of the Setup Wizard. Windows Setup Wizard will then ask for a few items of information including the product key to complete the process. The Setup then replaces the existing Windows files and saves the user settings, programs, and files that have been previously installed on the computer. After several reboots the installation is completed.



Insert the Windows XP CD-ROM in the CD-ROM drive to start the upgrade procedure:

- Go to Start > Run.
- In the Run box, type D:\i386\winnt32, where D is the drive letter for the CD-ROM, and then press Enter.
- The Welcome to the Windows XP Setup Wizard appears.
- Select Upgrade to Windows XP, which is recommended, and click Next.
- The License Agreement page will appear.
- Read the license agreement and click I accept this agreement.
- Click Next.
- The Upgrading to the Windows XP NTFS File System page appears.
- Click Yes, upgrade my drive, and click Next.
- The Copying Installation Files page appears.
- The Restarting the Computer page appears and the computer will restart.
- After the computer restarts, the upgrade process should continue without the need for any further user intervention.

Upgrade to Windows XP From Windows 98

The process for upgrading Windows 98 to Windows XP is similar to the process of upgrading Windows 98 to 2000. The hardware compatibility list tool should be used to ensure that the computers to upgrade will work with the Windows XP operating system.

If the computer passes the hardware compatibility test, run the Windows XP setup program to start the upgrade to Windows XP, run the XP.EXE command. The Windows XP compatibility tool will run, and will generate a report. If the report shows the computer is Windows XP compatible then you can upgrade to Windows XP.



Dual Boot—Windows XP, Windows 2000, Windows 9x

Windows XP can be set up to dual boot with another operating system such as Windows 98 or Windows 2000. When the computer system is set up for a dual boot, a menu will offer choices of different operating systems to use during start up.

Note that if the system is set up as dual boot, none of the applications that are installed in the other partition can be used. If the same application needs to be used by both operating systems, it will need to be installed once in each partition.

If the operating systems have incompatible file systems, two separate partitions can be created. The operating systems can be installed on each partition. Alternatively, separate logical drives can be created and the two operating systems can be installed onto them. However, if the hard drive is formatted with NTFS, the Windows 98 operating system will not be able to read files in the Windows 2000 NTFS partition. Microsoft recommends that both partitions be formatted with the FAT file system if the computer is set up to dual boot with Windows 98 and 2000. Windows 2000 can operate with the FAT file system, and files in the other partition can be read.

Once installed Windows XP must be activated within 30 days of installation. Either over the internet or using the automated telephone service.

Keeping User Files Private

The NT File System (NTFS) provides the option of making files and folders private so that only the user will have access to them. XP has the ability to make all or a selected few folders private. For example, the user wants a roommate to have access to the My Documents folder but not certain files in the folder. The user can create a subfolder in My Documents and make it private. Any files the user does not want the roommate to have access to can be put in the private subfolder.

File Sharing

File and resource security is another feature of Windows XP. Windows XP uses a system called Simple File Sharing. This system provides a stripped-down interface that eases the setup of common security arrangements. Simple File Sharing differs from classic Windows NT and 2000 file sharing in several ways.

In Windows XP, permissions are set for local users and network users at the folder level only. Windows XP cannot apply permissions to individual files. Network users who connect to a computer will be authenticated using the Guest account of the computer. The guest account provides only those privileges and permissions that apply to the computer that is being accessed or shared.

XP Home edition uses simple file sharing where as XP Professional has the ability to switch between simple file sharing and advanced file sharing.

To share a folder over the network, users right-click on the folder and select Properties to display the properties dialog box. If the Sharing and Security tabs are missing, check and see if the computer is set up with file and printer sharing for Microsoft networks.



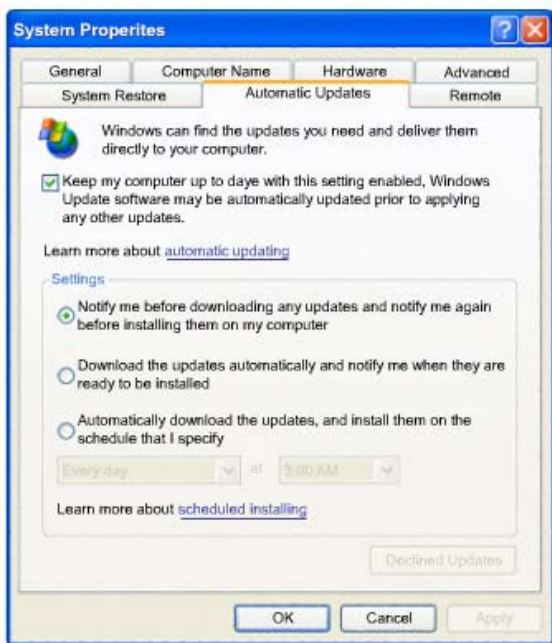
Internet Enhancements

Cookies

The Internet Enhancements feature is new to the Windows XP environment. Windows XP is shipped with Internet Explorer 6 (IE 6), which is the most recent version of Microsoft's browser, shown in Figure . IE 6 integrates streaming media playback tools into the task pane on the left side of the browser. Windows XP provides a control to protect privacy. This control enables the user to build a custom policy that can block or allow cookies on a site-by-site basis. Windows XP can block or allow cookies from each website on the Internet.

Remote Desktop Connection

Remote Desktop uses a Terminal Services technology that allows the user to work on a Windows XP Professional computer from any other computer. For example, a user was working from home the night before, and forgets to bring the file to work the next day. By logging on remotely to the home PC, the user can access the entire file, and can navigate the computer as if they were sitting in front of it.



System Properties

The System Properties dialog box is a new feature in Windows XP. New tabs have been added to this dialog box, including Automatic Updates, Remote, and System Restore. These new features give the user added reliability and troubleshooting methods.

To access the System Properties dialog box, right-click My Computer and select Properties.

Automatic Update Tab

Automatic Update, as shown in Figure , allows the user to configure when and how Windows Update checks for critical updates. In addition to the option to turn Automatic Update off completely, three types of notification settings are included:

- Notify me before downloading any updates and notify me again before installing them on my computer.
- Download the updates automatically and notify me when they are ready to be installed.
- Automatically download the updates and install them on the schedule that I specify.

Remote Tab

This tab contains two new features, Remote Assistant and Remote Desktop. Remote Assistant is a convenient troubleshooting tool that allows administrators to connect to a client machine across any distance over the Internet. Remote Assistant can create a secure, reliable connection to ensure that neither computer is compromised. The interface hides the complexity of the process to allow the user to navigate with ease. This is very similar to remote desktop.

To enable Remote Assistant, two parties must establish a session. These parties are known as the novice and the expert. Both parties must be using Windows XP for this connection to work.

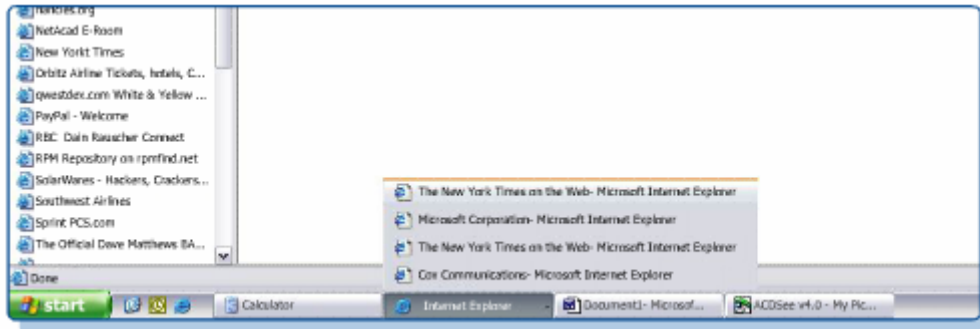
System Restore

System Restore is a Windows XP service that runs in the background. This service allows the user to restore the OS to a predefined point in time. Windows XP creates an initial restore point whenever an install or upgrade takes place. Also, restore points are created regardless of user activity every 24 hours if the computer is left on. If the computer is turned off and more than 24 hours have passed since the prior restore was completed, the service will create a restore point when the computer is turned on. Windows XP also allows the user to create a restore point manually at any time.

Windows XP GUI

Windows XP has a new graphical user interface (GUI), as shown in Figure . The start menu, the task manager, and the taskbar remain. However, the icons for My Computer, Network Places, and My Documents are no longer on the desktop by default. The Start Menu has been given a different appearance, when compared to earlier versions of Windows.

XP removes the clutter from the taskbar by grouping like applications together. For example, multiple copies of Internet Explorer are grouped and accessed by clicking on the drop-down box



Fast User Switching

On a shared work or home computer, users have the capability to switch quickly between accounts without having to log off. This feature was initially designed for home use and is enabled by default with the Windows XP Home Edition. Fast User Switching is also available on Windows XP Professional if it is installed on a stand-alone or workgroup-connected computer. If the user joins a domain with a computer that uses Windows XP Professional, the user will not be able to use Fast User Switching.