Introduction to the Windows XP Professional Exam

CERTIFICATION OBJECTIVES

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   ✓ Two-Minute Drill
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Chapter 1: Introduction to the Windows XP Professional Exam

Welcome to Microsoft’s Windows XP Professional and Exam 70-270. Exam 70-270 is one of two optional core requirements for Windows 2000 certification, which allows certification candidates to choose between Windows XP Professional and Windows 2000 Professional. As Microsoft’s newest operating system at the time of this writing, Windows XP Professional brings rich functionality, as well as fun, to the Windows 2000 code.

You can think of Windows XP Professional as an operating system that has the power of Windows 2000 (if not more) and the friendliness of Windows Me. In fact, a number of Windows Me features, such as System Restore and Movie Maker, are available in Windows XP Professional. However, let there be no mistake, Windows XP Professional is a business machine that takes full advantage of the Windows 2000 code and all that Windows 2000 has to offer—with some new additions and features of its own. In short, Windows XP, both Home and Professional versions, is the new operating system of choice among home users and complex office networks where speed, friendliness, and powerful networking capabilities are a must. Wrap all of this together with a new interface, and Windows XP provides what many home and office users have been waiting for.

As an IT professional, you are expected by Microsoft to be able to install, configure, and administer Windows XP Professional, primarily in a networking environment. To test your job skills, Exam 70-270 is provided as a core requirement for Windows 2000 certification. This exam helps prove to employers that you are ready to tackle the issues and challenges that await you in an XP networking environment. Exam 70-270 is a core optional exam (with Windows 2000 Professional) for the Microsoft Certified Professional (MCP) and Microsoft Certified Systems Engineer (MCSE) certifications. Passing this exam will prove that you, as a networking professional, have the skills to implement and manage this powerful and popular new Microsoft product.
What Is Installing, Configuring, and Administering Microsoft Windows XP Professional?

I’ve taken many Microsoft exams, and whenever I look at an exam title and see the words “installing, configuring, and administering,” I always think to myself, “So the exam can ask virtually anything!”—and that sentiment is right. Exam 70-270 expects you to know almost everything about Windows XP Professional—from planning a deployment to solving implementation and administration problems. However, don’t feel overwhelmed, because this book is designed to give you knowledge and technical skills you’ll need to master Exam 70-270. In order to understand all that the exam covers, it is important to spend a few moments considering a broad overview of Windows XP Professional. The following sections explore the primary features of Windows XP Professional so you can fully understand the type of content on which the exam is likely to focus.

What Is Windows XP Professional?

Windows XP Professional is Microsoft’s contribution to desktop and networking power and friendliness. It is the first true end-user system (considering the Home and Professional editions) that incorporates the power of Windows 2000 and the friendliness of Windows Me. Also, with a new interface design that is less cluttered and highly configurable, Windows XP Professional is easy for the new user to master and complex enough to interest the advanced user. In the following sections, I’ll give you a brief overview of some of Windows XP Professional’s features (from the perspective of the exam). This is meant to be an overview, not a comprehensive review. Of course, the best introduction to the operating system is to simply get your hands on the keyboard and explore!

New Look and Feel

Windows XP Professional, along with Windows XP Home edition, provides a new interface for users. With this interface, you’ll see a simplification of Windows menus and the desktop, which is now typically clean except for the Recycle Bin. The Start
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Menu, which you can see in Figure 1-1, gives you more items than previously, as well as expandable menus that you can choose to configure. By accessing the Start Menu and Taskbar properties, you can completely configure the way the system looks, and you completely customize the items you see on the Start Menu. The idea is to provide a complex operating system that does not overwhelm the user. Users can configure the items they need to see, while allowing other items to remain hidden. You can also choose to use the “classic” Start Menu view as well. The new Windows XP interface is a “theme” applied to Windows XP by default. However, you can completely remove the default Windows XP interface simply by choosing a different theme, such as the Windows Classic theme, or you can even get new themes from the Internet.

By accessing Display Properties, shown in Figure 1-2, you see that Windows XP Professional makes use of the theme concept, with “Windows XP” functioning as a theme. You can choose to return to the classic Windows settings if you like, or you can choose to use a completely different theme.
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You’ll also see a more graphical, streamlined view through the system. Folders are very easy to use and even suggest tasks to users. The Windows XP Professional Control Panel, shown in Figure 1-3, also hides its typical icon list and tries to help users in a task-based manner through a category view. Again, here you can also switch to classic view and use Windows XP in a way that works for you. Overall, the new XP look is easier, provides more options, and makes the operating system more interesting for end users.

Windows 2000 Tools

If you have spent any time working with Windows 2000 Professional or Windows 2000 Server, you’ll quickly recognize many of the features of Windows XP Professional. Here are some examples of the features:

- Windows XP Professional is designed for the NTFS file system, which provides the greatest security and management features of any file system. Even the Home edition of Windows XP prefers NTFS.

- The Microsoft Management Console (MMC) is heavily utilized for a number of utilities and features. As with Windows 2000, you even create customized MMC consoles by adding standalone snap-ins, as shown in Figure 1-4.
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**FIGURE 1-3**

The new Windows XP control provides a category view.

**FIGURE 1-4**

The MMC and Standalone Snap-ins are provided in Windows XP Professional.
Common management tools also appear in Windows XP Professional, including Performance and the Computer Management console, shown in Figure 1-5. Local Users and Groups, Shared Folders, Event Viewer, Device Manager, Disk Management, and a number of other tools are readily available.

Networking

Windows XP Professional is a true network operating system. It provides the features and functionality as well as the security technology to make it the operating system of choice for large Microsoft networks as well as the operating system of choice for the home or small office user. Although the exam focuses on Windows XP Professional as the operating system for larger networks, it is an operating system that can essentially function anywhere. Regardless of your networking needs, Windows XP Professional can meet the goal. Following are some examples you can use for networking:

- For the home or small office user, Windows XP Professional can automatically assign itself an IP address and auto-configure TCP/IP settings. In the domain environment, Windows XP Professional is fully compatible with Windows 2000 networking and can function with DHCP and DNS network servers.
You can make changes to Windows XP Professional’s IP configuration “on the fly” without the need to reboot.

- Universal Plug and Play makes Windows XP an excellent choice for a network operating system because Windows XP can more easily detect network media and automatically install the necessary drivers to function with that media.

- Aside from local area networking, Windows XP Professional can easily function in a variety of roles. For example, Windows XP Professional can be used as a dial-up server or as a Web server, and it can be used to establish virtual private networks.

- Internet connectivity is provided via modem or broadband connectivity (or LAN connectivity), and Internet Explorer 6 is the most secure version of IE ever produced. Additionally, home and small office users can take advantage of Internet Connection Sharing, in which one computer is connected to the Internet and other network computers use the Internet via that connection. A simple wizard helps home and small office users configure these connections.

**New Features**

Along with the new desktop and interface design, Windows XP Professional does come with some additional new features that can be of assistance. This list does not address every addition, but here are some of the more important ones:

- **File and Settings Transfer Wizard** The new File and Settings Transfer Wizard helps you easily migrate settings and files from other XP installations or earlier versions of Windows. Using the network or removable media, you can easily move files and settings from one system to another. This feature provides you with an easy way to move files, system settings, e-mail configuration, and even e-mail itself to a new computer system. Long gone are the aggravating days of moving data from one computer to another manually—now you can do it quickly and easily with the help of a wizard.

- **Program Compatibility Wizard** The new Program Compatibility Wizard helps users maintain programs while moving to the new operating system. The Program Compatibility Wizard can “act like” a previous version of Windows so that older software can run on Windows XP. The wizard supports hundreds of older programs and can make the operating system provide the necessary
API calls and responses to older programs so that you avoid those famous “lock ups”—in theory, at least.

- **Remote Assistance/Remote Desktop** You can assist users over the Internet using Remote Assistance, and you can even run a computer remotely using Remote Desktop. These features give you the flexibility you need and greatly assist help centers in larger networking environments. Using Remote Assistance, you can accept a Remote Assistance invitation from a user and connect to that user’s computer over the intranet or Internet. You can then see the user’s desktop and can even take control of the computer to troubleshoot and configure it. Remote Desktop, which works with terminal services, enables you to remotely connect with another computer and use that computer. For example, Remote Desktop is highly effective in instances in which you need to connect to an office computer from home or vice versa.

- **Internet Connection Firewall (ICF)** The new firewall is designed to work with ICS and help home or small office users protect their computers and networks from Internet attacks. ICF works by keeping a table of listing the data that you have explicitly requested from Internet Explorer. For example, let’s say you enter **www.microsoft.com** in your Web browser. ICF records this request in the table. When the Web page arrives from Microsoft.com, ICF recognizes that the data has been requested and allows it to enter the firewall. Any data that arrives at the firewall that has not been explicitly requested is dropped, which helps ward off hacker attacks.

**CERTIFICATION OBJECTIVE 1.02**

**Overview of Exam 70-270**

Exam 70-270 is designed to test your knowledge of installing, configuring, and administering Microsoft Windows XP Professional. Specifically, the exam expects you to have the installation, configuration, and administration knowledge for using Windows XP Professional in a Microsoft network environment. In other words, you can expect the exam to focus on Windows XP Professional in terms of network connectivity and functionality. Since Microsoft networking essentially defines the MCP
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FROM THE CLASSROOM

All Things to All People
At first glance, it may appear that Windows XP is trying to be all things to all people. In a sense, that is true. After all, Windows XP Professional is a great home or small office system. It provides you with everything you need, including Internet connectivity, and helps you manage a small home or office network. With file sharing and NTFS permissions and easy user account setup, Windows XP Professional has everything the home user might want. On the other side of the scale, Windows XP Professional has the power and security features that enable it to participate on a large LAN or WAN. Complex networking features such as EFS, NTFS permissions, and IIS can be used to make Windows XP Professional a simple desktop operating system on the network, or it can function as a file server, print server, or Web server. Is Windows XP Professional the right thing for all people? At this point in time, it is the closest Microsoft has ever come!

FROM THE CLASSROOM

Can Windows XP Professional host intranet Web sites?
Yes. IIS is available in Windows XP, and since Windows XP prefers the NTFS file system, you can securely host intranet sites.

When should the automatic IP addressing feature of Windows XP Professional be used?
The automatic IP address assignment feature of Windows XP is designed for small office or home networks where there is no Windows domain. In other words, a workgroup setting is the perfect place. On a Windows domain, however, a DHCP server typically handles the IP address assignment task.

How does ICF work?
Basically, ICF keeps a table of requested information from the Internet. Information that comes back from the Internet must match a request before it is allowed into the system. Information that does not match the request or information that attempts to use an incorrect TCP port or protocol is dropped.

SCENARIO & SOLUTION
and MCSE certifications, you will not see many questions—if any at all—that focus on home or even small office configurations.

Exam 70-270 builds on basic Windows 2000 knowledge and assumes that you have hands-on experience working with Windows XP Professional in a Microsoft network environment. Because of the real-world experience factor, the exam does not narrowly focus on single objectives. Instead, you are likely to see questions that combine a number of objectives into a scenario. Will you see questions that seem outside of the exam scope? Probably yes. Because Microsoft expects your knowledge to be holistic, you are likely to see questions concerning installation and administration of Windows XP Professional via a Windows 2000 Server, the Active Directory, and Group Policy. In other words, Microsoft sees your education and technical knowledge as global and not specifically defined to one product. This is why you can expect the Windows XP Professional exam to overlap with other exams.

Audience Profile

As you are beginning your Exam 70-270 studies, it is important to consider the audience for which this exam was developed and to make sure you fit into that audience profile. This exam is designed for IT professionals who work in medium to very large networking environments that use Windows XP Professional as the desktop operating system. The exam assumes these network environments use Windows 2000, including all of the features of a Windows 2000 network, such as Group Policy, DNS, Active Directory, and so on. You should have a minimum of one year’s experience in implementing and administering network operating systems in such an environment.

The reality, of course, is that not all of us work in environments with those kinds of specifications. So, does that mean you cannot pass the exam? No, not at all. What it does mean is that the exam was written with this audience in mind, so you’ll need to take a close look at the audience profile and your own skills and then determine how you can study and practice using Windows XP Professional and, ideally, Windows 2000 Server as well. You may need to study harder and spend more time working with Windows XP and Windows 2000 Server concepts, but this book will help guide you through that study process.
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Getting Ready

Before taking Exam 70-270, I recommend a three-part preparation process that will help you be successful on exam day:

- **Study this book and get hands-on practice.** This book is designed to be all you need to master Exam 70-270, but you need to make use of all of the book’s components in order to be successful. Be sure to practice and study all of the chapter content and chapter questions carefully. Then, use the book’s CD-ROM to further practice and test your skills. You also need hands-on practice with Windows XP Professional. The CD-ROM in this book provides you with an evaluation version of Windows XP Professional. You may also want to install and practice using Windows 2000 Server. Downloadable trial versions of the server software are available at [www.microsoft.com/windows2000](http://www.microsoft.com/windows2000).

- **Check for updates.** Although they rarely do, exam certification objectives can change from time to time. So you should get in the habit of periodically checking [http://www.microsoft.com/trainingandservices](http://www.microsoft.com/trainingandservices) for updates to Exam 70-270 or the MCP program in general. Also, as you are studying Windows XP Professional, keep a check on [http://www.microsoft.com/windowsxp](http://www.microsoft.com/windowsxp) for late-breaking news and product updates.

### SCENARIO & SOLUTION

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have not taken any of the Windows 2000 exams, but I did pass the NT 4.0 exams. Should I take the Windows XP Professional exam now?</td>
<td>Yes. You can start your Windows 2000 certification with Windows XP Professional, but it wouldn’t hurt for you to study for the server and Active Directory exam before taking the XP exam. Remember that exams may overlap.</td>
</tr>
<tr>
<td>Should I spend some time working with Windows 2000 Server and the Active Directory before taking the Windows XP Professional exam?</td>
<td>Yes. Exam content overlaps, and you should spend some time working with Windows 2000 Server’s networking functionality, Group Policy, and deployment strategies.</td>
</tr>
<tr>
<td>Is the Windows XP Professional exam very different from the Windows 2000 Professional exam?</td>
<td>The exams’ contents are very similar, and many of the objectives are the same. You can expect the XP exam to focus more on new features that XP offers.</td>
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</tbody>
</table>
Explore the exam format. If you are somewhat unfamiliar with Microsoft exams or just the new Windows 2000 exams, you can download some sample versions at http://www.microsoft.com/trainingandservices so you can see the exam format you might have. Be advised that the exams may give you scenario-based questions or interface questions where you are required to configure portions of Windows XP Professional. Perfect practice makes perfect performance, so know what to expect before arriving at the testing center.

Exploring the Exam Objectives

You can access the Windows XP Professional exam objectives by visiting http://www.microsoft.com/trainingandservices. The exam objectives are the primary skills being measured on the exam. It is important that you understand the major focus of those exam objectives, and the following sections review them so you’ll know what to expect.

Installing Windows XP Professional

The exam expects you to know how to prepare for a Windows XP Professional installation, install the OS, and resolve installation problems. Specifically, you can expect the exam to focus on the following topics:

- **Perform an attended installation of Windows XP Professional.** You’ll need to know the process for CD or over-the-network installations of Windows XP Professional.

- **Perform an unattended installation of Windows XP Professional.** You’ll need to know how to use Setup Manager to create answer files for an unattended installation and how to use Remote Installation Services. You will also need to know about the features and functionality of System Preparation.

- **Upgrade from a previous version of Windows to Windows XP Professional.** The exam will test you on upgrade strategies, issues, and support. You’ll need to know how to prepare a computer to meet upgrade requirements and how to migrate existing user settings to a new installation of Windows XP Professional.
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- **Perform post-installation updates and product activation.** This objective covers service packs and fixes, as well as Windows XP’s new product activation feature.

- **Troubleshoot failed installations.** For the most part, Windows XP Professional installation is very easy, but you’ll need to know how to resolve problems when they occur.

**Implementing and Conducting Administration of Resources**

Exam 70-270 expects you to be able to administer resources on a Windows XP Professional computer. Specifically, you will need to know how to do the following:

- **Monitor, manage, and troubleshoot access to files and folders.** You’ll need to know about file compression, accessing shared files and folders along with NTFS permissions, and how to optimizing access to files and folders.

- **Manage and troubleshoot access to shared folders.** You will create and remove shared folders, control access to shared folders using permissions, and manage and troubleshoot Web server resources.

- **Connect to local and network print devices.** Since Windows XP Professional can be used as a print server, you will need to know how to manage printers and print jobs, how to control access to printers via permissions, how to connect to an Internet printer, and how to connect to a local print device.

- **Configure and manage file systems.** Windows XP Professional supports FAT, FAT32, and NTFS. You will need to know how to convert from one file system to another and how to configure FAT, FAT32, and NTFS.

- **Manage and troubleshoot access to and synchronization of offline files.** Offline files and resource accesses also form a portion of this exam; you must know how to manage access to offline files.

- **Configure and troubleshoot fax support.** Windows XP Professional provides a new fax console and additional support for managing faxes. You’ll need to know how to configure and troubleshoot fax support for the exam.
Implementing, Managing, Monitoring, and Troubleshooting Hardware Devices and Drivers

Hardware configuration and support continues to be a focus of the Windows XP Professional exam, as it has been in the past. You'll need to know how to do the following:

- Implement, manage, and troubleshoot disk devices. You’ll need to know how to install and configure DVD and CD-ROM devices; monitor and configure hard disks; monitor, configure, and troubleshoot volumes; and configure removable media.

- Implement, manage, and troubleshoot display devices. The exam expects you to know how to configure multiple display support and how to install, configure, and troubleshoot video adapters.

- Configure Advanced Configuration Power Interface (ACPI). For the exam, you’ll need to know the issues with ACPI and how to configure it.

- Implement, manage, and troubleshoot input and output (I/O) devices. I/O device configuration is an important issue on this exam and applies to a wide range of products, such as printers, mouse types, keyboards, smart card readers, cameras, modems, IrDA devices, wireless devices, USB devices, and hand held devices.

Windows XP Professional provides the best support for I/O devices of any of Microsoft's previous operating systems. You can expect to see some questions and issues concerning these products.

- Manage and troubleshoot drivers and driver signing. You’ll need to know how to install, remove, and update device drivers and how to ensure that they come from a reliable source.

- Monitor and configure multiprocessor computers. Windows XP Professional can support computers with more than one processor. The exam expects to know how to configure and monitor computers equipped in this manner.
Monitoring and Optimizing System Performance and Reliability

Windows XP Professional is a robust operating system providing superior performance and reliability. The exam expects you to know how to optimize and monitor the system. You are expected to know how to do the following:

- Monitor, optimize, and troubleshoot performance of the Windows XP Professional desktop. This area includes the optimization and performance of memory, processor, disk, applications, and scheduled tasks.
- Manage, monitor, and optimize system performance for mobile users. For laptop users, you should know how to configure Windows XP Professional to take advantage of mobility while conserving system resources.
- Restore and back up the operating system, system state data, and user data. You’ll need to know how to recover system state data and user data using Windows backup, how to troubleshoot system restoration by starting in Safe Mode, and how to recover system state data and user data by using the Recovery console.

Configuring and Troubleshooting the Desktop Environment

Windows XP Professional contains a new desktop interface that you can configure locally or via Group Policy. For the exam, you need to know how to do the following:

- Configure and manage user profiles. Windows XP Professional is designed as a multi-user environment, and you can still use roaming user profiles as well.
- Configure support for multiple languages or multiple locations. Windows XP Professional can support multiple languages and location formats at the same time, and the exam expects you to be able to configure these regional settings.
- Manage applications by using Windows Installer Packages. Windows Installer Packages, along with Group Policy, will make the deployment of applications quick and easy.
- Configure and troubleshoot desktop settings. Windows XP Professional supports a number of desktop configuration features; and, as an IT professional, you’ll need to know how to support, as well as enforce them, using Group Policy.
Configure and troubleshoot accessibility services. Windows XP Professional supports a number of accessibility services for users with certain disabilities. You’ll need to know about these services and how to configure them.

Implementing, Managing, and Troubleshooting Network Protocols and Services

Since the Windows XP Professional exam focuses on the use of Windows XP as a desktop system in Windows networks, you are expected to know how to configure network protocols and services. You’ll need to know how to do the following:

- **Configure and Troubleshoot the TCP/IP protocol.** TCP/IP is the standard protocol used in most major networks. The exam expects you to have a firm understanding of how to configure TCP/IP and troubleshoot on a Windows XP Professional computer.

- **Connect to computers by using dial-up networking.** Dial-up networking continues to be an important aspect of any computer system. For the exam, you’ll need to know how to configure it. Specifically, you’ll need to know how to create a VPN connection, access a remote access server, and configure Internet Connection Sharing.

- **Connect to resources using Internet Explorer.** Internet Explorer is the default browser for Windows XP Professional, and the exam expects you to know how to use it to connect to resources.

- **Configure, manage, and implement Internet Information Services (IIS).** IIS is used to host Web sites or intranet sites. You can run IIS on Windows XP Professional, and the exam expects that you know how to use it.

- **Configure, manage, and troubleshoot Remote Desktop and Remote Assistance.** These two new tools enable you to remotely access a computer and offer remote assistance to users—both of which are powerful tools for the IT professional. You’ll need to know all about these for the exam.

- **Configure, manage, and troubleshoot an Internet Connection Firewall.** Windows XP Professional is the first Microsoft desktop system to offer a built-in Internet Connection Firewall. Naturally, you’ll need to know about this feature and how to configure, manage, and troubleshoot it for the exam.
Configuring, Managing, and Troubleshooting Security

Built on the Windows 2000 code, Windows XP Professional provides all of the bells and whistles of Windows 2000 and NTFS security, but it is now easier for users and easier for IT professionals to handle. For the exam, you’ll need to know how to do the following:

- **Configure, manage, and troubleshoot Encrypting File System (EFS).** EFS provides security while allowing easy access, and you’ll need to know how to manage this security feature of Windows XP Professional.

- **Configure, manage, and troubleshoot local security policy.** Windows XP Professional can be configured locally with a security policy, and the exam expects you to know how to configure, manage, and troubleshoot a local security policy.

- **Configure, manage, and troubleshoot local user and group accounts.** You’ll need to know how to configure and manage local user and group accounts in Windows XP Professional, including such issues as auditing, account settings, policy, user and group rights, and cache credentials.

- **Configure, manage, and troubleshoot a security configuration.** Using Windows XP Professional security tools, you can create a security configuration for a local computer. The exam expects you to be able to configure, manage, and troubleshoot a local security configuration.

- **Configure, manage, and troubleshoot Internet Explorer security settings.** Because of online threats, Internet Explorer’s security settings have been beefed up, and the exam expects you to be able to configure these settings.

### CERTIFICATION OBJECTIVE 1.03

**What Is Covered in this Book**

This book is designed to cover every exam objective and give you the technical information and practice you need to master Exam 70-270. Although I cover every exam objective, it is important to note that Microsoft exam objectives are often not listed in a logical order. However, in this book, I have reorganized these exam
objectives so you can learn all about Windows XP Professional logically and completely. The following sections give you a global overview of the chapters to come.

**Chapter 2: Performing an Attended Installation of Windows XP Professional**

In this chapter, you’ll learn about a Windows XP Professional attended installation. An attended installation means that you physically “attend” the installation of Windows XP Professional on a particular computer. Specifically, you start the installation using the Windows XP Professional installation CD-ROM, or you start setup.exe over the network. You then answer setup prompts that are posed to you during the installation. This chapter also explores upgrading to Windows XP Professional and the upgrade issues you are likely to face on the exam, as well as in real life. You’ll also learn about how Windows XP Professional’s new File and Settings Transfer wizard can easily migrate user settings and documents from one computer to another.

**Chapter 3: Performing an Unattended Installation of Windows XP Professional**

Aside from the basic attended installation of Windows XP Professional, you can also use several unattended or automated methods that enable the IT professional to install hundreds or even thousands of workstations at the same time. In this chapter, you’ll learn about using Setup Manager to create answer files for unattended installations. You’ll also learn about Windows 2000’s Remote Installation Services and how to prepare a system for imaging using the System Preparation tool.

**Chapter 4: Configuring and Troubleshooting the Desktop Environment**

Windows XP Professional provides a new desktop environment that is typically easier for end users, but complex enough for power users. From an IT professional’s perspective, Exam 70-270 expects you to be able to configure a number of different items, collectively called the desktop environment.

First, you’ll learn about accessibility features and services in Windows XP Professional that enable persons with certain disabilities to more easily use the computer.
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As an IT professional, you’ll need to know how to configure these options. Next, this chapter explores Windows XP’s desktop settings. You’ll see how they are configured locally and how standardized settings can be enforced with Group Policy.

Then you’ll learn about Windows XP’s multiple languages and locations features in regional options and settings. You’ll see how to use these features to enable multiple language and region support. After that, Windows Installer packages are explored, particularly in relation to deployment via Group Policy.

Finally, this chapter explores user profiles, as well as the configuration of roaming user profiles.

Chapter 5: Managing Windows XP Professional Hardware

As a network professional, you should have hardware configuration and troubleshooting high on your skills list. The requirement holds true for Windows XP Professional, and you’ll need to know a thing or two about hardware management for the exam.

In this chapter, you’ll learn about configuring devices, such as CD/DVD-ROM drives, and about removable media and multiple display support. You’ll also learn about video adapter configurations, ACPI, and device drivers and driver signing.

Chapter 6: Configure and Manage I/O Devices

Input/Output devices enable you to interface with the operating system or exchange different kinds of data with the operating system. I/O devices have become more numerous and more complex during the past few years—and more popular as well.

In this chapter, you’ll learn how to configure and manage such I/O devices as keyboards, mice, smart card readers, multimedia hardware, cameras, modems, IrDA devices, wireless devices, USB devices, and hand-held devices.

The number of users of I/O devices has dramatically increased in recent years. In the past, most users had just a keyboard, mouse, and a printer. Today, all kinds of digital cameras, PDAs, and numerous other devices are in use. Fortunately for you, the IT professional, these devices are typically easy to install and manage.
Chapter 7: Configuring Disk Drives and Disk Volumes

Windows XP Professional supports dynamic disks and volume management, which was first introduced in Windows 2000. In this chapter, you’ll learn how to configure and manage Windows XP Professional disk drives and disk volumes. Specifically, you’ll learn how to monitor and configure disk drives and volumes, how to convert from one file system to another, and how to configure FAT, FAT32, and NTFS.

Chapter 8: Printing and Faxing

Printing and faxing remain important configuration topics and support issues for IT professionals. Since Windows XP Professional can be used as a print/fax server, you’ll want to study this chapter to learn all about Windows XP Professional’s printing and faxing features.

In this chapter, you’ll learn about managing printers and print jobs, how to control access to printers and faxes with permissions, how to connect to an Internet printer, how to configure a local print device, and how to configure and troubleshoot fax support. Although at first glance, the subject of printing and fax support seems simple enough, printers and printer management can easily become complex. For this reason, an entire chapter is devoted to the subject and the exam issues and problems you are likely to face.

Chapter 9: Resource Administration

When Windows XP Professional is used on a network, a number of resources for network users can be made available, and the management of those resources is an important aspect of the exam. In this chapter, you’ll learn about resource administration and how to control and manage resources in Windows XP Professional.

In this chapter, you’ll learn how to configure, manage, and troubleshoot file compression, control access to files and folders with permissions, create and remove shared folders, manage and troubleshoot Web server resources, manage offline files and synchronization, and manage applications.
Chapter 10: Networking

Windows XP Professional is designed to be the desktop operating system of choice in Windows 2000 networks. Windows XP Professional provides you with the tools and functionality that you need for complex networking scenarios.

In view of the exam objectives, this chapter explores the configuration of TCP/IP, dial-up networking, VPN configuration, and RAS configuration. You’ll also explore network connection troubleshooting. Since the exam expects you to support Windows XP in larger network environments, you will need to have a firm grasp of networking concepts and skills. You can read an overview of Windows 2000 networking later in this chapter, but there is no replacement for hands-on experience.

Chapter 11: Internet Usage, Support, and Security

Windows XP Professional provides a number of tools that make Internet usage and connectivity easy and safe. In this chapter, you’ll learn about Internet connections, how to connect to resources using Internet Explorer, and how to configure and manage Internet Information Services. You’ll also learn about Windows XP Professional’s new Remote Desktop and Remote Assistance features, as well as about Internet Connection Sharing and the new Internet Connection Firewall.

Since the Remote Desktop and Remote Assistance features (along with ICS) are new features in Windows XP, you can expect a few exam questions about them. Remote Desktop and Remote Assistance provide excellent ways to connect to remote computers. With Remote Desktop, you can connect to and use a remote computer, such as accessing an office computer from your home. Remote Assistance can be a very helpful desktop support tool with which a user can connect to and use a remote computer. The user can configure the computer and make changes to it in order to fix problems. Finally, ICS, designed for home and workgroup users, provides a way to protect the network against outside attacks. Using a table method, ICS does not allow any network traffic to enter the computer that was not explicitly requested by the user.

Chapter 12: Configuring, Managing, and Troubleshooting Security

Windows XP Professional provides you with a number of security features that can make networking safe and secure. In this chapter, you’ll explore these security features. Specifically, you’ll learn about EFS, local security policy, user and group accounts,
local security configuration, and the configuration of Internet Explorer’s security features.

As networks continue to develop and expand, the security problems and issues facing networks today can be very challenging. Windows XP supports a number of important security features that can help reduce security problems. For example, at the local level, a user can easily encrypt documents and folders so that only he or she can access them. The encryption features are invisible to the user, who can continue using the documents and folders as normal. At the networking and Internet level, Windows XP supports all of the networking security features provided by Windows 2000, and Internet Explorer 6 hosts a number of additional security features that can help you manage cookies and private information exchange with Web servers.

Chapter 13: Monitoring and Optimizing System Performance and Reliability

Windows XP Professional provides you with the tools and features that enable you to monitor system performance and optimize performance for the computer. In this chapter, you’ll learn about monitoring and optimization for the desktop environment and for mobile users, as well as how to back up and restore the operating system and user data. Considering the graphics-intensive nature of the Windows XP operating system and the stringent hardware requirements needed to run the system, the issues of system performance and reliability are very important. In fact, Windows XP even enables you to control the graphics intensive use of the desktop by the operating system—you can optimize the desktop for performance over appearance. Use Performance Monitor and related tools, you can easily track and manage performance on Windows XP, and in this chapter you’ll learn all about these features.

CERTIFICATION OBJECTIVE 1.04

What You Should Already Know

Exam 70-270 is a demanding exam that expects prior knowledge and skills. As such, this is not a beginner’s exam. Before beginning your study of Windows XP Professional
in preparation for Exam 70-270, you should consider the following sections carefully to make sure you have the required prerequisite knowledge.

Windows 2000

Windows XP Professional is designed after Windows 2000 and is intended to work on a Windows 2000 network. Because of this functionality, you are very likely to see some overlap of Windows 2000 networking technologies that are not explicitly stated as objectives for Exam 70-270. In light of this fact, you need a firm command of a few concepts, namely:

- Windows 2000 Networking
- Windows 2000 Domain Controller and Member Server Roles
- Active Directory Management
- Group Policy
- Remote Access Service
- Virtual Private Networking

Although not designed to be a comprehensive overview, the following sections review each of these issues. As you are reading, consider your own skills. If you believe you may be deficient in a particular area, you may need further study before tackling exam 70-270.
Windows 2000 Networking

Windows 2000 provides premier networking services, functions, and features that can meet the needs of a small workgroup or a global network. In the days of Windows NT, Microsoft entered the networking arena, previously dominated by Novell and UNIX systems. However, Windows NT left a lot to be desired, was difficult to manage, and did not scale well as networks grew and changed.

The entire construct of Microsoft networking changed with the release of Windows 2000. Windows 2000/.NET networks are easier to manage, provide more services, and have essentially no practical limit in terms of scalability. There are a number of reasons for these changes and a number of technologies behind the change.

Network Configuration

In order to understand Windows 2000/.NET networking, we must first take a look at the structure of a Windows 2000 network. Windows 2000 networks are built on sites, domains, and organizational units (OUs). An understanding of these components is critical to understanding Windows 2000 networking and the management of Windows XP Professional clients.

Networks are physically divided into sites. A site is simply a physical collection of networked computers. Typically, a site denotes that the computers are located in one geographic location. For example, let’s say that a company has an office in New York and an office in Houston. A network exists in each location. In terms of Windows 2000 networking, each location can function as a site. Then, using the site configuration, network administrators can determine how those two physical locations can connect to the wide area network. This connection may be a WAN link, such as a T3 connection, or in the case of small network sites, it might be a modem connection or a VPN connection over the Internet. There are numerous connection possibilities, all depending on the needs of the network and the cost.

So why does Windows 2000 use site configuration to group computers? There are a few different reasons that this physical configuration is important:

- Sites help Windows 2000 networking components determine what network traffic is considered “inexpensive” and local. In other words, the definition of sites helps the Windows 2000 Server know if certain computers are considered local or on a remote subnet that requires a more expensive and less reliable WAN link in order to communicate.
Sites help Windows 2000 control replication. Replication is the process of updating the Active Directory data that resides on each Windows 2000 domain controller. Updates flow easily between domain controllers within a site, but Windows 2000 knows that replication to domain controllers out of the site can be costly and troublesome. When you define those sites, you can further define how Windows 2000 Servers can communicate with each other in remote sites. You can see that sites enable an administrator to define locations and the WAN links connecting them. Windows 2000 can then use this information to help you control replication and traffic.

While site configuration is a physical look at the geographical locations that make up local and remote network segments, Windows 2000 domains and organization units (OUs) are logical divisions of that network. A domain is a Windows 2000 grouping of users and computers for management and security purposes. The domain is not connected to the site—a domain can contain several different sites, or a site can contain several different domains. The site physically segments the network while the domain is a logical division.

Why are domains used? Consider this example: Let’s say you have a network with two sites: New York and Houston. The New York site contains 2,000 users while the Houston site contains 4,000 users. Each site is managed by its own administrative team and has different security standards. In this case, two domains can be used, one at each site, so that different administrative teams can manage the sites and implement different security standards. Now let’s consider this same example in a different way. What if New York and Houston were managed by the same administrative team with the same security standards? In this case, only one domain is needed. The single domain encompasses both sites and the administrative team manages both the single, logical domain.

In Windows NT, domains caused a lot of problems because Windows NT could only handle so many users and computers per domain. For large networks, the domain structure often grew ridiculously complex and earned Windows NT the reputation of not scaling well. Not so in Windows 2000 networks—Windows 2000 domains can scale to millions of objects with no complications. In many cases, a large network now needs only a single domain. Only when different administrative structures or security needs are necessary do networks need to use a multiple domain model.

However, what happens if you want to use a single domain, but enable different administrators to manage different portions of it? This is where OUs come into play.
Using an OU is a way to segment a large domain into manageable chunks. Different administrators can be delegated to have control over different OUs, and you can apply different Group Policy objects to different OUs. OUs can be used in a number of helpful administrative ways, for example:

- Different departments can be configured as OUs so that an administrator can handle the department’s specific needs.
- Different divisions, such as Users, Management, and Production, can be created to manage users more easily.
- Different resources, such as Printers and Shared Folders, can even be configured into an OU structure so that different administrators can manage those resources.

As you can see, there are a number of different approaches that can be taken with OUs. The point is that a large domain can be easily segmented and controlled by different administrators without the headache and expense of creating multiple domains.

**Multiple domain environments are more expensive than single domain environments, both in terms of monetary expense and time expense. Multiple domains require more server hardware and more administrative time and focus in order to manage. However, under the Windows 2000 domain model, most environments can easily function with one domain and multiple OUs to meet specific administrative needs.**

**Domain Name System**  In order for a network to scale well, it must be able to accommodate users, computers, and resources as they are acquired. In other words, the structure of the network must easily allow growth. The Windows 2000 domain structure allows growth, but its naming structure also easily allows growth as well. Domain Name System (DNS) is the name of the IP address mapping system used in Windows 2000 networks. Windows XP Professional is fully compatible with the DNS standard and is capable of functioning and communicating on a Windows 2000 network.

DNS is a naming standard that uses a series of discrete domain names in order to identify network hosts. DNS is highly scalable; in fact, every computer on the Internet is identified by a DNS name. DNS uses domain names to identify host computers. For example, server1.osbornet.com uniquely recognizes server1, which resides in the Osborne domain, which is located in the com domain. By resolving com, Osborne,
and server1, the server’s IP address, can be located so that communication can occur on the Internet.

Windows 2000 networks function using this same standard, which provides unlimited scalability and a cohesive naming strategy with the Internet. Mycompany.com is a Windows domain as well as an Internet site. jwilliams@mycompany.com is both a username and an e-mail address. The use of DNS also enables child and grandchild domains. For example, let’s say you have a domain named mycompany.com. You want to create an additional domain that will function as a child called Production. When you create the new domain using Windows 2000 Server, the new domain will be named Production.mycompany.com. What if you want to further subdivide the Production domain in to North and South? Then you would have North.production. mycompany.com and South.production.mycompany.com.

If you have spent any time working with Windows NT, you may be wondering what happened to Windows Internet Naming Service (WINS). WINS provided a NetBIOS name to IP address mappings in pre–Windows 2000 networks. WINS is still supported in Windows 2000 networks for backward compatibility with older Windows systems, such as NT and 9x. A pure Windows 2000/XP network does not need WINS because DNS is used.

Windows 2000 Domain Controller and Member Server Roles

One of the reasons that Windows 2000 can support large domains and a flexible domain/OU structure concerns the use of domain controllers. A domain controller is a Windows 2000 Server computer that holds and manages the Active Directory database. Using the Active Directory, you can add users, manage groups and security, manage resources, and other domain specific tasks. In other words, a domain controller manages the domain, and you manage the domain through the functions that you perform on a domain controller.

Windows NT used domain controllers, but it used a master model in which there was one Primary Domain Controller (PDC) per domain and multiple Backup Domain Controllers (BDCs). The PDC contained a writeable copy, the domain database, while the BDCs contained copies. BDCs helped in load management and could be used in the event of the a PDC failure. The problem is that a single PDC per domain could not scale well and was not flexible in terms of management.

In Windows 2000, a multimaster domain controller model is used. This means that there are no PDCs or BDCs. Every domain controller maintains a copy of the Active Directory database. You can make changes to that database on any domain controller.
controller, and those changes are replicated to other domain controllers throughout the environment. Because of the multimaster model, Windows 2000 domains can scale to the millions of objects with as many domain controllers as needed. Administrators have the management flexibility they need without the configuration confusion that often came with PDCs and BDCs.

Other Windows 2000 Servers can be used in the domain without functioning as domain controllers. These servers can function as DNS servers, DHCP servers, intranet servers, print servers, and file servers. This feature enables many different servers to be used for different purposes without taxing the use of domain controllers. The end result is a network that is much easier to manage and much more flexible.

It is important to keep in mind that the Windows XP Professional exam does not test your knowledge of Windows 2000 networking—at least, not directly. However, the exam expects you to understand how Windows XP can be used in a domain environment and how you can manage Windows XP in that environment. In order to understand those features, part of your prerequisite knowledge is to have a firm understanding of Windows 2000 networking functions and features.

Active Directory Management
The Active Directory, which was first introduced in Windows 2000, is a directory service for the network. It is a way for administrators to store user and computer accounts, network resources, and manage the network. For users, the Active Directory provides a highly searchable way to find network resources. The Active Directory stores information about resources based on attributes. For example, a shared printer might have attributes for “laser, staple, color,” and other characteristics. Users can then search on those attributes, such as “laser printer,” and locate a shared laser printer on the network.

In terms of administration, the Active Directory provides three tools on Windows 2000 domain controllers that enable administrators to manage the directory and the Windows 2000 network:

- **Active Directory Sites and Services** This MMC snap-in contains information about sites and site links. You can add site links here, configure costs, schedules, and manage how replication occurs over those links.
Active Directory Domains and Trusts

The Domains and Trust console enables you to manage Active Directory domains and trust relationships. By default, Windows 2000 domains in the same tree all share transitive trust relationships. However, you can configure one-way and two-way trusts with Windows NT domains that might still exist in the network.

Active Directory Users and Computers

The Users and Computers console configures and manages users, computers, resources, and even OUs. Of the three, this console is used most frequently.

A common question new Windows 2000 network enthusiasts often ask is “Where, exactly, is the Active Directory?” The Active Directory resides on each domain controller. When a domain controller is created, it receives a copy of the Active Directory database and is set up as a replication partner with another domain controller. For this reason, there is no single master copy of the Active Directory database. Rather, each domain controller in a domain contains a writeable copy of that database that can be managed by administrators. Let’s say your environment has five domain controllers. You add a new user on one of them. Since this new user has to be added to all domain controllers, the replication process begins in order to replicate that data. Any time a change is made on one domain controller, replication makes certain that change occurs on all of the domain controllers. This feature assures that each domain controller has the same copy of the Active Directory database. The good news with this multimaster model, aside from ease of administration, is fault tolerance. If a domain controller goes down, the network is not affected, since other domain controllers are available and performing the same functions. In fact, every domain controller in the domain would have to fail at the same time in order for there to be domain functionality failure.

Group Policy

Group Policy is a powerful feature of Windows 2000 networks that enables administrators to finely control desktop settings, computer configurations, account policies, and even software. Implemented at the site, domain, or OU level, network use of Group Policy enables an environment to streamline user and computer configuration and enables different administrators to impose different policies.

For example, let’s say that you have a basic site policy. That site policy is inherited by all domains and OUs in the environment. However, a certain domain in that environment has additional policies that it needs to invoke. Computers and users in
that domain receive the site policy first and then the domain policy. However, the site policy sits at the top of the hierarchy and cannot be overwritten or contradicted by the domain policy. In other words, the domain policy can only further strengthen the site policy and provide additional restrictions or configurations—not make them easier. The same holds true for the OU policy; it can only further strengthen the site and domain policy.

Windows XP Professional also enables you to configure a local group policy that applies to local users of that computer. The Local Group Policy console, shown in Figure 1-6, provides configuration options for both computers and users, but it should be noted that site, domain, and OU policies can always override the local policy.

Remote Access Service
Windows 2000 networks continue to provide support for RAS, or the Remote Access Service. RAS enables a Windows 2000 to accept logins from remote clients. For example, let’s say you are traveling with your laptop computer. Using RAS, you can use a modem to dial an RAS server and gain access to the local network remotely. This feature enables users to access network resources even when they are not physically connected to the network.
Virtual Private Networking

Virtual private networks (VPNs) enable a remote computer to connect securely to a Windows 2000/XP computer using the Point-to-Point Tunneling Protocol (PPTP) or the Layer 2 Tunneling Protocol (L2TP). This feature, which was supported back in the days of Windows NT, enables a secure tunnel over a public network, such as the Internet or intranet, so that private data can be securely passed using the public network as a WAN link.

TCP/IP Networking

Windows 2000 is built on TCP/IP networking, and Windows XP Professional is designed for TCP/IP. You don’t need to be a master IP planner, but you do need to have a good handle on TCP/IP networking concepts, such as the following:

- IP addressing
- Subnet masks
- Default gateways
- Common transmission control protocols
- Common Internet protocols
- DHCP
- DNS

Global Computing Knowledge

Finally, as with any Microsoft certification exam, the more you know, the more likely you are to succeed. It’s important that you have a strong background in all kinds of operating systems and networking issues. You should know a thing or two about a wide range of client computers, such as Windows, Macintosh, and perhaps Linux. You need to know your way around Windows 2000 Server and how things work on a Windows 2000 network. Armed with these tools, you are ready to tackle Windows XP Professional and Exam 70-270!
CERTIFICATION SUMMARY

This chapter gave you an overview of Windows XP Professional and explored the exam objectives. In order to be successful on this exam, you’ll need to spend time studying the chapters to come and working with Windows XP Professional. As you study, keep in mind the target audience and remember that the exam will approach Windows XP Professional in terms of a LAN or WAN network desktop system.

As you study for the exam, also keep in mind that exam objectives may overlap with content from other exams. You should have a firm handle on Windows 2000 networking and Active Directory concepts, and you should spend some time with Windows 2000 Server. This cross-objective approach has been very common on the Windows 2000 exams, and you can expect the Windows XP Professional exam to follow this approach. In short, study this book carefully, but study smartly as you prepare for Exam 70-270.
Chapter 1: Introduction to the Windows XP Professional Exam

TWO-MINUTE DRILL

What Is Installing, Configuring, and Administering Microsoft Windows XP Professional?

- Windows XP Professional is the operating system of choice for Windows 2000 networks. Available in both the Professional and Home versions, Windows XP Professional contains the networking and management functions necessary for small networks and large networks. Exam 70-270 will test your knowledge of Windows XP Professional in a medium size to large Windows 2000 network.

- Windows XP Professional contains the power of Windows 2000 and the friendliness of Windows Me.

- There are many new features, including the File and Settings Transfer wizard, Application Compatibility, and ICF. You’ll also find familiar Windows 2000 management tools, such as the MMC and Computer Management.

Overview of Exam 70-270

- You must be able to perform an attended and unattended installation of Windows XP Professional.

- You must show your ability to implement and conduct the administration of resources.

- You will need to be able to implement, manage, monitor, and troubleshoot hardware devices and drivers.

- You must be able to monitor and optimize performance and reliability.

- You must be able to configure and troubleshoot the Windows XP Professional desktop environment.

- You must be able to implement, manage, and troubleshoot network protocols and services.

- You must be able to configure, manage, and troubleshoot security.

What Is Covered in This Book

- In Chapter 2, you will perform an attended installation of Windows XP.

- In Chapter 3, you will perform an unattended installation of Windows XP.
In Chapter 4, you will configure the desktop environment.
In Chapter 5, you will configure and manage hardware devices and drivers.
In Chapter 6, you will configure and manage I/O devices.
In Chapter 7, you will configure disk drives and disk volumes.
In Chapter 8, you will configure printing and fax services.
In Chapter 9, you will configure networking components.
In Chapter 10, you will administer resources.
In Chapter 11, you will configure Internet usage, support, and Internet security.
In Chapter 12, you will manage and troubleshoot security.
In Chapter 13, you will monitor and optimize Windows XP performance.

What You Should Already Know

- You should be familiar with Windows 2000 networking and Windows 2000 Server.
- You should have a global knowledge of TCP/IP networking and IP networking protocols and services.
SELF TEST

The following questions will help you measure your understanding of the material presented in this chapter. Read all of the choices carefully, as there may be more than one correct answer. Choose all correct answers for each question.

1. The Windows XP Professional exam is likely to view your role with Windows XP Professional in what type of environment?
   A. Home use
   B. Small office
   C. Windows 2000 LAN or WAN
   D. All of the above

2. Windows XP’s ICF feature is designed for what user?
   A. Home
   B. Small office
   C. Windows 2000 LAN or WAN
   D. None of the above

3. You need to install Windows XP Professional on a certain computer, but you must move all of the settings and user documents from a Windows 98 computer to the new XP computer. How can you easily accomplish this?
   A. Manually move the data.
   B. Use the Files and Settings Transfer wizard.
   C. Move them via the Active Directory.
   D. You cannot perform this action.

4. What does the Application Compatibility wizard do?
   A. Makes downlevel applications compatible with Windows XP Professional.
   B. Makes Windows XP Professional compatible with downlevel applications.
   C. Creates applications that are compatible.
   D. There is no Application Compatibility wizard.
5. You want to install Windows XP Professional on 1,000 computers. What automated methods are available to you?
   A. Remote Installation Services
   B. Setup Manager
   C. System Preparation
   D. Network Share
   E. E-mail server

6. What file system is the preferred file system for Windows XP Professional?
   A. FAT
   B. FAT32
   C. DVNS
   D. NTFS

7. When is Windows XP’s automatic IP address feature typically used?
   A. Home/Small office network
   B. Windows 2000 domain
   C. When a DHCP server is not available
   D. When a DNS server is not available

8. Which of the following features are supported by Windows XP Professional?
   A. IIS
   B. VPN
   C. ICS
   D. TCP/IP

9. The new XP interface can be considered as which of the following?
   A. HTML object
   B. Theme
   C. Skin
   D. API
10. Which statement best describes Exam 70-270?
   A. The exam is very objective specific.
   B. The exam may include items from other exams.
   C. The exam requires subnet masking skills.
   D. None of these statements are correct.

11. Which Windows 2000 network features provides physical information about network locations?
   A. Sites
   B. Domains
   C. OUs
   D. Group Policy

12. You work in a Windows 2000 network that contains a single domain. Management wants to
    segment the network so that certain administrators can more effectively manage the networking
    needs and group policy of several departments. What needs to be created?
    A. Sites
    B. Domains
    C. OUs
    D. Group Policy

13. Which statement best describes how Windows 2000 uses domain controllers?
    A. A master model is used.
    B. A multimaster model is used.
    C. PDCs are used.
    D. BDCs are used.

14. How is WINS used in a Windows 2000 network?
    A. WINS is supported for backward compatibility.
    B. WINS is used for name resolution by all Windows 2000/XP clients.
    C. WINS is used by Windows 2000 BDCs.
    D. WINS is used to support VPNs.
15. What two protocols can be used by VPNs in Windows XP?
   A. PPP
   B. PPTP
   C. DLC
   D. L2TP
SELF TEST ANSWERS

1. C is correct. Exam 70-270 will test your knowledge of Windows XP Professional installation, configuration, and administration in a larger networking environment where Windows XP Professional is the operating system of choice.
   A, B, and D are all incorrect. Although Windows XP Professional is a great home or small office system, the exam focuses on Windows XP Professional in a domain environment.

2. A and B are correct. The Internet Connection Firewall is designed for home users or small office users.
   C and D are incorrect. ICF is not designed for the LAN or WAN.

3. B is correct. The Files and Settings Transfer wizard helps you move settings and files quickly and easily from one computer to the next.
   A, C, and D are all incorrect because these answer options either do not provide a way to migrate the data.

4. B is correct. The Application Compatibility wizard enables Windows XP Professional to act as a downlevel Windows operating system so that downlevel applications can run.
   A, C, and D are incorrect because the Application Compatibility wizard does not function in the described ways.

5. A is correct. You can use RIS and System Preparation to automatically install Windows XP Professional.
   B and D are incorrect. These methods are not automated installation methods. C is incorrect because Sysprep only prepares a system for imaging.

6. D is correct. NTFS is the file system of choice.
   A, B, and C are incorrect. FAT and FAT32 are supported, but NTFS is the preferred file system. DVNS is not a file system.

7. A is correct. Automatic IP addressing is typically used in a home or in small office networks so that users avoid the trouble of configuring TCP/IP.
   B, C, and D are incorrect. Automatic IP address assignment is designed for the home or small office and not a Windows 2000 domain. Although Windows XP Professional can assign itself an IP address in the event that a DHCP server is not available, this is not its typical use. DNS does not affect IP addressing.
8. ✓ A, B, C, and D are all correct. Windows XP Professional supports all of these features, and this question also serves as a good warning that you will need to know your acronyms!

9. ✓ B is correct. The new XP interface is a theme. You can continue to use the XP interface, change to the Classic theme, or install and apply a different theme.
   ✗ A, C, and D are incorrect because the XP interface is considered a theme.

10. ✓ B is correct. Although the exam objectives are your primary guide, the exam may include items from other exams since Microsoft expects your knowledge to be global.
    ✗ A, C, and D are incorrect. These statements do not accurately describe the exam.

11. ✓ A is correct. Windows 2000 sites determine how computers are physically located in different geographic locations and how traffic between sites should be handled.
    ✗ B, C, and D are incorrect. Domains and OUs are used to logically manage the network, so B and C are incorrect. D is incorrect because Group Policy does not affect network location structure.

12. ✓ C is correct. When you need to segment a domain for management purposes, Organizational Units can be used.
    ✗ A, B, and D are incorrect. Sites are not used to segment domains, so A is incorrect. Although additional domains could be used, there is no need for them in this case, since a different administrative or security structure is not needed. Therefore, B is also incorrect. Group Policy cannot be used to segment a domain, so D is also incorrect.

13. ✓ B is correct. A multmaster model is used. All domain controllers function as peers and all contain a copy of the Active Directory database.
    ✗ A, C, and D are incorrect. Since a multi-master model is used, there is no need for PDCs or BDCs.

14. ✓ A is correct. In a true Windows 2000/XP network, only DNS is needed for name resolution. WINS is maintained for backwards compatibility with downlevel clients, such as NT and 9x.
    ✗ B, C, and D are incorrect. Since WINS is provided for backwards compatibility only, all of these answer options are incorrect.

15. ✓ B and D are correct. VPN networking in Windows XP can use the PPTP or L2TP protocol.
    ✗ A and C are incorrect. PPP and DLC are not used by Windows XP virtual private networks.