



OFFICIAL MICROSOFT LEARNING PRODUCT

2272C

Implementing and Supporting Microsoft®  
Windows® XP Professional

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# Module 1

## Installing Windows XP Professional

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## Lab: Question and Answers

### Lab A

#### Exercise: Determining That the Computer Meets the Minimum System Requirements

Tasks	Detailed steps
1. Turn on the computer. Note memory and CPU type and speed.	a. Turn on the computer.
 During Power-on Self Test (POST) note the amount of memory and CPU type and speed (if displayed).	
<b>Answer</b> <b>Answers will vary.</b>	
1. (continued) Log on as <b>Administrator</b> with a password of <b>P@ssw0rd</b> .	b. Log on as the <b>Administrator</b> , using the appropriate password. c. Right-click <b>My Computer</b> , click <b>Explore</b> , right click <b>(C:)</b> and then click <b>Properties</b> .
 Note the hard disk size, monitor resolution, and network connection.	
<b>Answer</b> <b>Answers will vary.</b>	
1. (continued) Note the disk size, monitor resolution and network connection.	d. Close the <b>(C:) Properties</b> sheet. e. Right-click the desktop, click <b>Properties</b> , click <b>Settings</b> , and note the resolution on the question above. f. Close <b>Display Properties</b> . g. Right-click <b>Network Neighborhood</b> , click <b>Properties</b> , and note on the question above whether you have or do not have network connectivity. h. Close the <b>Network Neighborhood</b> property sheet.
2. Use the Pre-Installation Checklist to verify that the computer will support Windows XP Professional.	a. CPU is at least a Pentium 2,233 MHz b. 64 MB to 2 GB RAM c. Hard disk is at least 2 GB d. Monitor has VGA or better resolution e. Keyboard and mouse available



	<ul style="list-style-type: none"><li>f. 12x CD-ROM drive available for CD installation</li><li>g. Computer has active network connection</li></ul>
3. Use the Pre-Installation Checklist to determine other issues for setup.	<ul style="list-style-type: none"><li>a. Partition options:<ul style="list-style-type: none"><li>Create new partition on unpartitioned disk</li><li>Create new partition on partitioned disk</li><li>Install on existing partition</li><li>Delete existing partition to make space available</li></ul></li><li>b. File system to be used:<ul style="list-style-type: none"><li>FAT</li><li>FAT32</li><li>NTFS</li></ul></li><li>c. Installing Windows XP Professional to a:<ul style="list-style-type: none"><li>Workgroup</li><li>Domain</li></ul></li></ul>
4. Log off the computer.	<ul style="list-style-type: none"><li>a. Log off the computer.</li></ul>

## Multimedia

Media Type	Title
Simulation	<a href="#">Installing Windows XP Professional</a>

# Module 2

## Automating an Installation of Windows XP Professional

### Contents:

Multimedia

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## Multimedia

Media Type	Title
Demonstration	<a href="#">How Setup Uses Answer Files and UDFs</a>

# Module 4

## **Contents:**

Lab: Question and Answers



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## Lab: Question and Answers

### Lab A









#### Exercise 1: Upgrading a Disk

Tasks	Detailed steps
1. Log on to the Perth virtual computer as <b>Bob</b> . Upgrade a basic disk to a dynamic disk by using the Computer Management console. -Disk: Disk 0.	<ol style="list-style-type: none"> <li>From the Perth virtual computer, log on as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</li> <li>Click <b>Start</b>, right-click <b>My Computer</b>, and then click <b>Manage</b>.</li> <li>From <b>Computer Management</b>, click <b>Disk Management</b>.</li> <li>On the <b>Welcome to the Initialize and Convert Disk Wizard</b> page, click <b>Cancel</b>.</li> <li>In the console tree, expand <b>Storage</b> if necessary, and then click <b>Disk Management</b>.</li> </ol>
<p> What is the storage type of Disk 0?</p> <p><b>Answer</b></p> <p><b>Basic.</b></p>	
<p> Is drive C a primary partition or a logical drive in an extended partition?</p> <p><b>Answer</b></p> <p><b>Primary partition.</b></p>	
1. (continued)	<ol style="list-style-type: none"> <li>In the lower half of the details pane of Computer Management, right-click <b>Disk 0</b>, and then click <b>Convert to Dynamic Disk</b>.</li> <li>In the <b>Convert to Dynamic Disk</b> dialog box, verify that Disk 0 is the only disk selected for upgrade, and then click <b>OK</b>.</li> <li>In the <b>Disk to Convert</b> dialog box, click <b>Convert</b>.</li> <li>In the <b>Disk Management</b> message, which warns that you will not be able to start other installed operating systems from any volumes on this disk, click <b>Yes</b>.</li> <li>In the <b>Convert Disk to Dynamic</b> message, which warns that file systems on any of the disks to be converted will be dismounted, click <b>Yes</b>.</li> <li>In the <b>Confirm</b> message, which informs you that to complete the conversion process the computer will now be restarted, click <b>OK</b>.</li> </ol>
2. Log on to the Perth virtual computer as <b>Bob</b> . Confirm the upgrade by viewing the properties of Disk 0 in Computer	<ol style="list-style-type: none"> <li>From the Perth virtual computer, log on as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</li> <li>In the <b>System Settings Change</b> dialog box, Click</li> </ol>

Management.	<p><b>No.</b></p> <ul style="list-style-type: none"> <li>c. Click <b>Start</b>, right-click <b>My Computer</b>, and then click <b>Manage</b>.</li> <li>d. On the <b>Welcome to the Initialize and Convert Disk Wizard</b> page, click <b>Cancel</b>.</li> <li>e. In the console tree, expand <b>Storage</b> if necessary, and then click <b>Disk Management</b>.</li> </ul>
<p> What is the storage type of Disk 0?</p> <p><b>Answer</b></p> <p><b>Dynamic.</b></p>	
<p> Is drive C a primary partition or an extended partition?</p> <p><b>Answer</b></p> <p><b>Neither. It is a simple volume.</b></p>	
<p> What has changed?</p> <p><b>Answer</b></p> <p><b>Disk 0 has been changed from a basic disk to a dynamic disk. Drive C has been changed from a primary partition to a simple volume.</b></p>	
2. (continued)	f. Leave Computer Management open.

## Exercise 6: Mounting a New Volume

Tasks	Detailed steps
1. Create a new simple volume, with a size of 30 MB, and mount it to the <b>C:\Mount</b> folder. -Mount Directory: C:\Mount	<ul style="list-style-type: none"> <li>a. In the lower half of the details pane of <b>Computer Management</b>, right-click the unallocatedspace on <b>Disk 1</b>, and then click <b>New Volume</b>.</li> <li>b. In the <b>New Volume Wizard</b>, click <b>Next</b>.</li> <li>c. On the <b>Select Volume Type</b> page, verify that <b>Simple</b> is selected, and then click <b>Next</b>.</li> <li>d. On the <b>Select Disks</b> page, in the <b>Select the amount of space in MB</b> box, type <b>30</b> and then click <b>Next</b>.</li> <li>e. On the <b>Assign Drive Letter or Path</b> page, click <b>Mount this volume in the following empty NTFS folder</b>, and then click <b>Browse</b>.</li> <li>f. On the <b>Browse for Drive Path</b> page, verify that <b>C:\</b> is selected, and then click <b>New Folder</b>.</li> <li>g. Name the new folder <b>My Folder</b>, and then click <b>OK</b>.</li> <li>h. Click <b>Next</b>.</li> <li>i. On the <b>Format Volume</b> page, in the <b>Volume label</b> box, type <b>Mounted</b>.</li> </ul>

	<p>j. Click <b>Perform a Quick Format</b>, click <b>Next</b>, and then click <b>Finish</b>.</p> <p> <i>The new volume is created, formatted, and mounted to the C:\Mount folder.</i></p> <p>k. Close <b>Computer Management</b>.</p>
2. Examine the new volume by creating a new text file in the <b>C:\Mount</b> folder and viewing its properties in Windows Explorer and at a command prompt. Note the results.	<p>a. Open <b>Windows Explorer</b>.</p> <p>b. Expand <b>My Computer</b>, and then click <b>Local Disk (C:)</b>.</p> <p> <i>Notice the icon for My Folder. This indicates that the folder is a mounted volume.</i></p> <p>c. Right-click <b>Mounted Folder</b>, and then click <b>Properties</b>.</p> <p> <i>The Mounted Folder Properties sheet appears.</i></p>
<p> What type of folder is C:\Mount?</p> <p><b>Answer</b></p> <p><b>A mounted volume.</b></p>	
<p> What is the target folder?</p> <p><b>Answer</b></p> <p><b>Mounted.</b></p>	
2. (continued)	<p>d. Click <b>OK</b>.</p> <p>e. Create a new text document in <b>C:\My Folder</b>, and name it <b>mount1.txt</b>.</p> <p>f. Close <b>Windows Explorer</b>.</p> <p>g. Click <b>Start</b>, click <b>Run</b>. In the <b>Open</b> box, type <b>cmd</b>, and then click <b>OK</b>.</p> <p>h. In the <b>command prompt</b> window, type <b>cd\</b> and then press ENTER.</p> <p>i. Type <b>dir</b> and then press ENTER.</p> <p> <i>Notice that My Folder appears as &lt;JUNCTION&gt;.</i></p>
<p> How much free space does the <b>dir</b> command report?</p> <p><b>Answer</b></p> <p><b>Answers will vary.</b></p>	
2. (continued)	<p>j. Type <b>cd My Folder</b> and press ENTER. To change the directory to the <b>C:\My Folder</b> directory, type <b>dir</b> and then press ENTER.</p>
<p> How much free space does the <b>dir</b> command report?</p> <p><b>Answer</b></p> <p><b>Answers will vary, but somewhere around 30 MB.</b></p>	



Why is there a difference between the free space reported for drive C and the free space reported for C:\My Folder?

**Answer**

**The amount of free space reported for C:\My Folder is the amount of free space available on the mounted volume.**

2. (continued)

- k. From Virtual PC console, select **Perth**, and then click **Close**.
- l. From the **Close** dialog box, select **Shut down Windows and save changes**. Verify that **Commit changes to the virtual disk** is selected, and then click **OK**.

# Module 5

**Contents:**

Lab: Question and Answers



**2**







## Lab: Question and Answers


### Lab A

#### Exercise 1: Configuring Disk Compression


Tasks	Detailed steps
1. Log on to Perth as <b>Bob</b> , and configure Windows Explorer to display compressed files and folders in another color.	<ol style="list-style-type: none"> <li>From Perth, log on as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</li> <li>Click <b>Start</b>, right-click <b>My Computer</b>, and then click <b>Explore</b>.</li> <li>From Windows Explorer, on the <b>Tools</b> menu, click <b>Folder Options</b>.</li> <li>In the <b>Folder Options</b> dialog box, on the <b>View</b> tab, verify that <b>Show encrypted or compressed NTFS files in color</b> is selected, and then click <b>OK</b>.</li> </ol>
2. Compress the folder hierarchy.	<ol style="list-style-type: none"> <li>In the <b>Folders</b> pane, expand <b>Local Disk (C:)</b>, expand <b>Documents and Settings</b>, right-click <b>Bob</b>, and then click <b>Properties</b>.</li> </ol>
<p> What are the <b>Size</b> and <b>Size on disk</b> values for Bob's folder?</p> <p><b>Answer</b></p> <p><b>Answers will vary.</b></p>	
2. (continued)	<ol style="list-style-type: none"> <li>In the <b>Bob Properties</b> sheet, click <b>Advanced</b>.</li> <li>In the <b>Advanced Attributes</b> dialog box, under <b>Compress or Encrypt attributes</b>, select the <b>Compress contents to save disk space</b> check box, and then click <b>OK</b>.</li> <li>Click <b>OK</b> to close the <b>Bob Properties</b> sheet.</li> <li>In the <b>Confirm Attribute Changes</b> dialog box, verify <b>Apply changes to this folder, subfolders and files</b> is selected, and then click <b>OK</b>.</li> </ol> <p> <i>In the console tree, the Documents and Settings folder appears in a different color.</i></p> <ol style="list-style-type: none"> <li>Right-click <b>Bob</b>, and then click <b>Properties</b>.</li> </ol>
<p> What are the <b>Size</b> and <b>Size on disk</b> values for the Documents and Settings folder? How much disk space does using disk compression save? (Hint: compare the values recorded before disk compression was enabled with the values after disk compression was enabled.)</p> <p><b>Answer</b></p> <p><b>Answers will vary.</b></p>	
2. (continued)	<ol style="list-style-type: none"> <li>Click <b>OK</b> to close the <b>Bob Properties</b> sheet.</li> </ol>

## Exercise 2: Moving a Compressed File

Tasks	Detailed steps
1. Create a file named <b>Compress1.txt</b> in the Bob\My Documents folder, and move this file to the C:\ Root folder.	<ol style="list-style-type: none"> <li>From Windows Explorer, in the console tree, expand <b>Bob</b>, and click <b>My Documents</b>. From the <b>File</b> menu, click <b>New</b>, and then click <b>WordPad Document</b>.</li> <li>Type <b>Compress1</b> for the file name, and then press ENTER.</li> </ol>
 Is the compression attribute set for the Compress1.txt document that you just created? If so why?	<p><b>Answer</b></p> <p><b>Yes, when a new file is created in a folder where the compression attribute is set, the file is compressed by default.</b></p>
1. (continued)	<ol style="list-style-type: none"> <li>Select the <b>Compress1</b> file, click <b>Edit</b>, and then click <b>Cut</b>.</li> <li>Select the <b>C:\ Root</b> folder, click <b>Edit</b>, and then click <b>Paste</b>.</li> </ol>
 Is the compression attribute still set for the Compress1 file? If so, why?	<p><b>Answer</b></p> <p><b>Yes. When you move files with the compression attribute set to a folder on the same partition, the compression attribute stays the same. Using Cut and Paste is the same as dragging the file and selecting the Move option.</b></p>
2. Remove the compression attribute from the C:\Compress1.txt document.	<ol style="list-style-type: none"> <li>In the console tree, select <b>Local Disk (C:)</b>, right-click <b>Compress1</b>, and then click <b>Properties</b>.</li> <li>In the <b>Compress1.txt Properties</b> sheet, click <b>Advanced</b>.</li> <li>In the <b>Advanced Attributes</b> dialog box, under <b>Compress or Encrypt attributes</b>, clear the <b>Compress contents to save disk space</b> check box, and then click <b>OK</b>.</li> <li>Click <b>OK</b> to close the <b>Compress1 Properties</b> sheet.</li> </ol> <p> Notice that the color of the Compress1.txt file changes back to the default color.</p>
3. Move the Compress1.txt file back to the C:\Documents and Settings folder.	<ol style="list-style-type: none"> <li>Select the <b>Compress1</b> file, click <b>Edit</b>, and then click <b>Cut</b>.</li> <li>On <b>Local Disk (C:)</b>, select the <b>Documents and Settings</b> folder, click <b>Edit</b>, and then click <b>Paste</b>.</li> </ol>
 Is the compression attribute set for the Compress1.txt file?	<p><b>Answer</b></p> <p><b>No. Because the file was moved, it retained the attributes that it had before the move, which did not include compression. This process is different than creating a new file in the compressed folder.</b></p>

4. Move the compressed file to another partition.	<ul style="list-style-type: none"> <li>a. Right-click <b>Compress1</b>, click <b>Properties</b>, and then click <b>Advanced</b>.</li> <li>b. Under the <b>Compress or Encrypt</b> attributes, click <b>Compress contents to save disk space</b>, and then click <b>OK</b>.</li> <li>c. Click <b>OK</b> to close the <b>Compress1 Properties</b> dialog box.</li> <li>d. Right-click <b>Compress1</b>, and then click <b>Cut</b>.</li> <li>e. In the <b>Folders</b> pane, click <b>Data (E:)</b>. From the <b>Edit</b> menu, click <b>Paste</b>.</li> </ul>
<p> Is the compression attribute set for the Compress1.txt file?</p> <p><b>Answer</b></p> <p><b>No. Because the file was moved to a new partition, the compression attribute was set to the value of the destination.</b></p>	
4. (continued)	f. Leave Windows Explorer open.


### Exercise 3: Copying a Compressed File

Tasks	Detailed steps
1. Create a file named <b>Compress2.txt</b> in the C:\Documents and Settings folder.	<ul style="list-style-type: none"> <li>a. From Windows Explorer, in the console tree, expand <b>Local Disk (C:)</b>, expand <b>Documents and Settings</b>, expand <b>Bob</b>, and then click <b>My Documents</b>.</li> <li>b. Click <b>File</b>, click <b>New</b>, and then click <b>WordPad Document</b>.</li> <li>c. Type <b>Compress2</b> for the file name, and then press ENTER.</li> <li>d. Select the <b>Compress2</b> file, click <b>Edit</b>, and then click <b>Copy</b>.</li> <li>e. Select the <b>C:\ Root</b> folder, click <b>Edit</b>, and then click <b>Paste</b>.</li> </ul>
<p> Is the compression attribute still set for the Compress2 file? If so, why?</p> <p><b>Answer</b></p> <p><b>No. When you copy files with the compression attribute set to a folder on the same partition, the compression attribute is based on the attributes of the folder into which the file is copied. Using Copy and Paste is the same as dragging and dropping the file within the same partition.</b></p>	
1. (continued)	f. Delete <b>Compress2</b> .
2. Remove the compression attribute for the C:\Bob\ Documents and Settings folder hierarchy.	<ul style="list-style-type: none"> <li>a. In the console tree, expand <b>Local Disk (C:)</b>, expand <b>Documents and Settings</b>, right-click <b>Bob</b>, and then click <b>Properties</b>.</li> <li>b. In the <b>Bob Properties</b> sheet, click <b>Advanced</b>.</li> <li>c. In the <b>Advanced Attributes</b> dialog box, under</li> </ul>

	<p><b>Compress or Encrypt attributes</b>, clear the <b>Compress contents to save disk space</b> check box, and then click <b>OK</b>.</p> <p>d. Click <b>OK</b> to close the <b>Bob Properties</b> sheet.</p> <p>e. In the <b>Confirm Attribute Changes</b> dialog box, verify that <b>Apply changes to this folder, subfolders and files</b> is selected, and then click <b>OK</b>.</p> <p>f. Close all open windows, and then log off.</p> <p>g. From <b>Virtual PC Console</b>, select <b>Perth</b> and then click <b>Close</b>.</p> <p>h. In the <b>Close</b> dialog box, select <b>Turn off and delete changes</b>, and then click <b>OK</b>.</p>
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## Lab B

### Exercise 3: Sharing an Encrypted File

Tasks	Detailed steps
1. From Vancouver, log on to the domain as <b>LoriOvi</b> . Grant access to the encrypted file Encrypt2.txt to RyanCal.	<p>a. From Vancouver, log on to the domain as <b>LoriOvi</b>, with a password of <b>P@ssw0rd</b>.</p> <p>b. Click <b>Start</b>, right-click <b>My Computer</b>, and then click <b>Explore</b>.</p> <p>c. From Windows Explorer, navigate to <b>C:\Encrypt</b>, right-click <b>Encrypt2.txt</b>, and then click <b>Properties</b>.</p> <p>d. On the <b>Encrypt2.txt Properties</b> sheet, click <b>Advanced</b>.</p> <p>e. In the <b>Advanced Attributes</b> dialog box, click <b>Details</b>.</p> <p>f. In the <b>Encryption Details</b> dialog box, select <b>Add</b>.</p> <p>g. In the <b>Select User</b> dialog box, select <b>RyanCal</b>, and then click <b>OK</b>.</p> <p> Notice that both DomUserxxx and DomUseryyy are listed in the Users Who Can Transparently Access This File list.</p> <p>h. Click <b>OK</b> to close the <b>Encryption Details</b> dialog box for C:\Encrypt\Encrypt2.txt.</p> <p>i. Click <b>OK</b> to close the <b>Advanced Attributes</b> dialog box.</p> <p>j. Click <b>OK</b> to close the <b>Encrypt2 Properties</b> dialog box.</p> <p>k. Close all windows, and then log off.</p>
2. From Vancouver, log on as <b>RyanCal</b> and verify transparent access to the file Encrypt2.txt.	<p>a. From Vancouver, log on to the domain as <b>RyanCal</b>, with a password of <b>P@ssw0rd</b>.</p> <p>b. Click <b>Start</b>, right-click <b>My Computer</b>, and then click <b>Explore</b>.</p> <p>c. From Windows Explorer, navigate to <b>C:\Encrypt</b>, and then double-click <b>Encrypt2.txt</b>.</p> <p>d. Close Notepad.</p>



Why was RyanCal able to access a file encrypted by LoriOvi?

**Answer**

**LoriOvi allowed the EFS certificate of RyanCal to gain access to this file.**



Will RyanCal be able to access all files encrypted by LoriOvi?

**Answer**

**No. Shared access to encrypted files is on a file-by-file basis.**



# Module 6

## Troubleshooting the Boot Process and Other System Issues

### Contents:

Lab: Question and Answers

**2**



Multimedia




**6**




## Lab: Question and Answers

### Lab A

#### Exercise 2: Using Advanced Boot Options to Solve Boot Process Problems

Tasks	Detailed steps
1. From Perth, log on as <b>Bob</b> , and search for and delete the <b>ntbtlog</b> file if it exists.	<ol style="list-style-type: none"> <li>From Perth, log on as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</li> <li>Click <b>Start</b>, and then click <b>Search</b>.</li> <li>Under <b>What do you want to search for</b>, click <b>All files and folders</b>.</li> <li>In the <b>All or part of a file name</b> box, type <b>ntbtlog.txt</b> and then click <b>Search</b>.</li> <li>If the search results show an <b>ntbtlog.txt</b> file located in <b>C:\Windows</b>, right click <b>ntbtlog.txt</b>, and then click <b>Delete</b>.</li> <li>Click <b>Yes</b> in the <b>Confirm File Delete</b> message box.</li> <li>Close the <b>Search Results</b> window, and then restart the computer.</li> </ol>
2. On the <b>Operating System Selection</b> screen, press F8, and then select <b>Enable Boot Logging</b> . Log on as <b>Bob</b> , open WordPad, and then view the contents of the Ntbtlog.txt file.	<ol style="list-style-type: none"> <li>Click <b>Start</b>, click <b>Turn Off Computer</b>, and then click <b>Restart</b>.</li> <li>On the <b>Operating System Selection</b> screen, press F8.</li> <li>On the <b>Advanced Options Menu</b> screen, select <b>Enable Boot Logging</b>, and then press ENTER.</li> <li>On the <b>Operating System Selection</b> screen, select <b>Microsoft Windows XP Professional</b>, and then press ENTER.</li> <li>Log on to Perth as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</li> <li>Click <b>Start</b>, point to <b>All Programs</b>, point to <b>Accessories</b>, and then click <b>WordPad</b>.</li> <li>In <b>WordPad</b>, click <b>File</b>, and then click <b>Open</b>.</li> <li>In the <b>Look in</b> box, click the down arrow, and then click <b>Local Disk (C:)</b>.</li> <li>Double-click <b>Windows</b>. In <b>Files of type</b>, select <b>Unicode Text Documents (*.txt)</b>, and then double-click <b>ntbtlog</b>.</li> </ol> <p> <i>The Boot log contains a list of all device drivers that were loaded, and some that were not loaded, in the sequence they were loaded.</i></p> <ol style="list-style-type: none"> <li>On the <b>Edit</b> menu, click <b>Find</b>.</li> <li>In the <b>Find what</b> box, type <b>TCPIP</b>, and then click <b>Find Next</b>.</li> </ol>
2. (continued)	<ol style="list-style-type: none"> <li>Move the <b>Find</b> dialog box so that you can see the line with TCPIP.</li> </ol> <p> <i>You are looking at the entry indicating that the</i></p>

	<p><i>driver TCPIP.SYS was loaded.</i></p> <p>m. In the <b>Find</b> dialog box, click <b>Find Next</b>. You should have a <b>WordPad</b> dialog box telling you that it has finished searching the log file. Click <b>OK</b>.</p> <p>n. Close the <b>Find</b> dialog box, close WordPad, and then restart the computer.</p>
3. Start the Recovery Console, disable TCPIP, and then restart the computer.	<p>a. On the Operating System Selection screen, select <b>Microsoft Windows Recovery Console</b>, and then press ENTER.</p> <p>b. When prompted with <b>Which Windows installation would you like to log onto</b>, type <b>1</b>, and then press ENTER.</p> <p>c. At the password prompt, type <b>P@ssw0rd</b> and then press ENTER.</p> <p>d. At the <b>C:\Windows</b> prompt, type <b>disable TCPIP</b> and then press ENTER.</p>
<p> What was the start type for TCPIP?</p> <p><b>Answer</b></p> <p><b>Service System Start.</b></p>	
3. (continued)	<p>e. At the <b>C:\Windows</b> prompt, type <b>del nbtlog.txt</b> and then press ENTER.</p> <p>f. At the <b>C:\Windows</b> prompt, type <b>exit</b> and then press ENTER to restart the computer.</p>
4. On the <b>Operating System Selection</b> screen, press F8, and enable boot logging. Open WordPad, and then search the nbtlog.txt file to see if TCPIP was loaded.	<p>a. On the Operating System Selection screen, press F8.</p> <p>b. On the <b>Advanced Options Menu</b> screen, select <b>Enable Boot Logging</b>, and then press ENTER.</p> <p>c. On the <b>Operating System Selection</b> screen, select <b>Microsoft Windows XP Professional</b>, and then press ENTER.</p> <p>d. Log on to Perth as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</p> <p>e. Click <b>Start</b>, click <b>All Programs</b>, point to <b>Accessories</b>, and then click <b>WordPad</b>.</p> <p>f. In WordPad, click <b>File</b>, and then click <b>Open</b>.</p> <p>g. Verify that <b>Windows</b> is in the <b>Look in</b> box, change <b>Files of type</b> to <b>Unicode Text Documents (*.txt)</b>, and then double-click <b>nbtlog.txt</b>.</p>
<p> Note: If there is an existing Boot log file, Windows XP will append the log information to the end of the existing file.</p>	
4. (continued)	<p>h. On the <b>Edit</b> menu, click <b>Find</b>.</p> <p>i. In the <b>Find what box</b>, type <b>TCPIP</b> and then click <b>Find Next</b>.</p> <p> <i>There is no entry in the log file for TCPIP. This verifies that TCPIP was not loaded. Verifying this</i></p>

	<p><i>entry is also a way of comparing a good boot sequence to a bad boot sequence.</i></p> <ul style="list-style-type: none"> <li>j. Close the <b>Find</b> dialog box, close WordPad.</li> <li>k. Click <b>Start</b>, click <b>Run</b>, in the Run dialog box, type <b>cmd</b> and then click <b>OK</b>.</li> <li>l. In the command prompt window type <b>ipconfig /all</b> and then press ENTER.</li> </ul> <p> <i>After a short period of time, an error is displayed. This is another indication that TCP/IP did not load.</i></p> <ul style="list-style-type: none"> <li>m. Close the command prompt window, and then restart the computer.</li> </ul>
5. Start the Recovery Console, view the status of TCP/IP, and then start the TCP/IP service.	<ul style="list-style-type: none"> <li>a. On the Operating System Selection screen, select <b>Microsoft Windows Recovery Console</b>, and then press ENTER.</li> <li>b. When prompted with <b>Which Windows installation would you like to log onto</b>, type <b>1</b> and then press ENTER.</li> <li>c. At the password prompt, type <b>P@ssw0rd</b> and then press ENTER.</li> <li>d. At the <b>C:\Windows</b> prompt type <b>LISTSVC</b> and then press ENTER.</li> <li>e. Scroll through the list of services until you find TCP/IP.</li> </ul>
<p> What is the status of TCP/IP?</p> <p><b>Answer</b></p> <p><b>Disabled.</b></p>	
5. (continued)	<ul style="list-style-type: none"> <li>f. Scroll until you reach the <b>C:\Windows</b> prompt.</li> <li>g. At the <b>C:\Windows</b> prompt, type <b>enable TCP/IP Service_System_Start</b> and then press ENTER.</li> <li>h. At the <b>C:\Windows</b> prompt, type <b>Help</b> and then press ENTER. Review the commands available in the Recovery Console.</li> <li>i. At the <b>C:\Windows</b> prompt, type <b>Exit</b> and then press ENTER to restart the computer.</li> </ul>
6. Start Windows XP, and then verify that TCP/IP started.	<ul style="list-style-type: none"> <li>a. On the Operating System Selection screen, select <b>Microsoft Windows XP Professional</b>, and then press ENTER.</li> <li>b. Log on to Perth as <b>Bob</b>, with a password of <b>P@ssw0rd</b>.</li> <li>c. Click <b>Start</b>, click <b>Run</b>, in the <b>Run</b> dialog box type <b>cmd</b> and then press ENTER.</li> <li>d. From the command prompt window, type <b>ipconfig /all</b> and then press ENTER.</li> </ul>
	Note: The configurations for the network adapter, TCP/IP etc, are displayed. This indicates that TCP/IP was loaded and is functioning correctly.

6. *(continued)*

- e. Close all open windows.
- f. From the **Virtual PC Console**, click **Perth**, and then click **Close**.
- g. From the **Close** dialog box, select **Turn off and delete changes**, and then click **OK**.

## Multimedia

Media Type	Title
Animation	<a href="#">Examining the Windows XP Professional Boot Process</a>

# Module 7

**Contents:**

Lab: Question and Answers

**2**

## Lab: Question and Answers

### Lab A

#### Exercise 2: Configuring Windows XP Professional to Use DHCP for IP Address Assignment

Tasks	Detailed steps
1. Configure the local area connection to use DHCP to obtain an IP address.	<ol style="list-style-type: none"> <li>From <b>Network Connections</b>, right-click <b>Local Area Connection</b>, and then click <b>Properties</b>.</li> <li>In <b>This connection uses the following items</b>, click <b>Internet Protocol (TCP/IP)</b>, and then click <b>Properties</b>.</li> <li>From <b>Internet Protocol (TCP/IP) Properties</b>, verify that the <b>Use the following IP address</b> and <b>Use the following DNS server addresses</b> check boxes are selected.</li> </ol>



Is the IP address that is listed here unique to this computer? If so, what would happen if someone else tried to use this address at the same time that you did?

#### Answer

**Yes, this address is unique to this computer.**

**If someone else tries to use this address, the first computer that activates its network card will function. When the second computer attempts to activate its card, the card will not function, and the first computer will display a message that another computer is trying to use the address.**

Document your current Internet Protocol TCP/IP settings.

**IP address:**

**Subnet mask:**

**Default gateway (if listed):**

**Preferred DNS server:**

**Alternate DNS server (if listed):**

1. <i>(continued)</i>	<ol style="list-style-type: none"> <li>Click <b>Obtain an address automatically</b>, click <b>Obtain DNS servers address automatically</b>, and then click <b>OK</b>.</li> <li>Click <b>Close</b> to close <b>Local Area Connection Properties</b>, and then close <b>Network Connections</b>.</li> </ol>
2. Use the <b>ipconfig</b> command-line utility to display the TCP/IP configuration of your computer.	<ol style="list-style-type: none"> <li>Restore the command prompt.</li> <li>From the command prompt, type <b>ipconfig</b> and then press ENTER.</li> </ol>

Document your Internet Protocol TCP/IP settings.


**Connection-specific DNS suffix (if present):**

**IP address:**

**Subnet mask:**





**Default gateway (if present):**





	Can you tell by this screen if the computer is configured to obtain an address automatically?
	<b>Answer</b>
	<b>No.</b>
3. Use the <b>ipconfig /?</b> option to determine how to display full configuration information.	<p>a. At the command prompt, type <b>ipconfig /?</b> and then press ENTER.</p> <p> You may need to maximize the Cmd.exe windows to see all of the ipconfig options.</p> <p>b. Locate the <b>ipconfig</b> switch that will display your full configuration information.</p>
	Which <b>ipconfig</b> switch will display the full configuration information?
	<b>Answer</b>
	<b>ipconfig /all.</b>
4. Run <b>ipconfig /all</b> . Close all open windows.	a. At the command prompt, type <b>ipconfig /all</b> and then press ENTER
	Is this computer DHCP enabled? When was the DHCP lease obtained? What new information, other than DHCP, is listed when the <b>/all</b> switch is used?
	<b>Answer</b>
	<b>Yes. Answers will vary. Adapter information, physical address, DHCP server, and DNS server information.</b>
4. (continued)	b. Close all open windows. Do not log off from Perth.

### Exercise 3: Configuring Windows Professional XP to Use an Alternate TCP/IP Configuration

Tasks	Detailed steps
1. Stop the DHCP service on the London virtual machine.	<p>a. From London, log on as <b>Administrator</b>, using <b>P@ssw0rd</b> for the password.</p> <p>b. From <b>Administrative Tools</b>, click <b>DHCP</b>.</p> <p>c. Right-click <b>London.nwtraders.msft (192.168.1.200)</b>, point to <b>All Tasks</b>, and then click <b>Stop</b>.</p> <p>d. Do not close the DHCP snap-in.</p>
	Wait for the DHCP service to stop before you continue.
2. From the Perth virtual machine, run the <b>ipconfig</b> command to release and renew your DHCP lease.	<p>a. From Perth, click <b>Start</b>, and then click <b>Run</b>.</p> <p>b. In the <b>Open</b> box, type <b>cmd</b> and then press ENTER.</p> <p>c. At the command prompt, type <b>ipconfig /release</b> and then press ENTER.</p>

	<p>d. At the command prompt, type <b>ipconfig /renew</b> and then press ENTER.</p> <p> <i>It may take a few minutes to time out looking for a DHCP server. You may receive an error that the time-out period has expired, which is expected because there is still no active DHCP service.</i></p> <p>e. At the command prompt, type <b>ipconfig</b> and then press ENTER.</p> <p> <i>Notice that your IP address is now 169.254.x.x. This is how you can recognize an Automatic Private IP Address.</i></p> <p>f. Minimize the command prompt window.</p>
3. View your computer's TCP/IP properties.	<p>a. Click <b>Start</b>, and then click <b>Control Panel</b>.</p> <p>b. On the <b>Pick a Category</b> page, click <b>Network and Internet Connections</b>.</p> <p>c. Under <b>Pick a Control Panel Icon</b>, click <b>Network Connections</b>.</p> <p>d. Right-click <b>Local Area Connection</b>, and then click <b>Properties</b>.</p> <p>e. In <b>This connection uses the following items</b> window, click <b>Internet Protocol (TCP/IP)</b>, and then click <b>Properties</b>.</p>
<p> Are there any additional tabs available that were not available before? If so, what are they?</p> <p><b>Answer</b></p> <p><b>Yes. There is an Alternate Configuration tab available. This tab was not available the last time we viewed this property sheet because the TCP/IP settings were static, and now they are dynamic.</b></p>	
4. Configure your TCP/IP settings to use an alternate configuration of your original static configuration, which was documented in the previous exercise.	<p>a. Click the <b>Alternate Configuration</b> tab.</p>
<p> What is selected by default for an alternate configuration? What effect will this selection have on your computer if the DHCP server is unavailable to give your computer an IP address? Will you be able to connect to the instructor computer if the DHCP server does not give you an address?</p> <p><b>Answer</b></p> <p><b>Automatic Private IP address.</b>  <b>If the DHCP service is unavailable, Windows XP will automatically generate an IP address from the pool of addresses that is set aside for this process. No, because the instructor computer is configured for a different IP subnet.</b></p>	
4. (continued)	<p>b. Click <b>User configured</b>, and then enter the following:</p> <ul style="list-style-type: none"> <li>• IP Address 192.168.1.52</li> <li>• Subnet Mask 255.255.255.0</li> <li>• Default Gateway 192.168.1.200</li> </ul>

	<ul style="list-style-type: none"> <li>Preferred DNS Server 192.168.1.200</li> </ul>  <i>Note that you will not have all the information to complete every field. Enter only the information that you have.</i> <ol style="list-style-type: none"> <li>Click <b>OK</b> to save the settings, click <b>Close</b> to close <b>Local Connection Properties</b>, and then minimize <b>Network Connections</b>.</li> </ol>
5. Use the command prompt to run the <b>ipconfig</b> command to release and renew your DHCP lease. View your new settings.	<ol style="list-style-type: none"> <li>Restore the command prompt window.</li> <li>At the command prompt, type <b>ipconfig /release</b> and then press ENTER.</li> </ol>  <i>After a short period you will see the alternate configuration that you have just configured.</i> <ol style="list-style-type: none"> <li>From the command prompt, type <b>ipconfig /renew</b> and then press ENTER.</li> </ol>
6. From London, start the DHCP service.	<ol style="list-style-type: none"> <li>From London, in the DHCP snap-in, right-click <b>London.nwtraders.msft (192.168.1.200)</b>, point to <b>All Tasks</b>, and then click <b>Start</b>.</li> <li>Close the DHCP snap-in.</li> <li>Log off as Administrator.</li> </ol>
7. From Perth, renew the DHCP-assigned address.	<ol style="list-style-type: none"> <li>In the command prompt, type <b>ipconfig /release</b>.</li> <li>In the command prompt, type <b>ipconfig /renew</b>.</li> <li>Close the command prompt, and log off as Bob.</li> </ol>

## Lab C

### Exercise 1: Troubleshooting IP Addresses by Using ipconfig

Tasks	Detailed steps
1. From the Vancouver virtual machine, log on to the domain as <b>Administrator</b> . Use the <b>ipconfig</b> command to troubleshoot IP address problems.	<ol style="list-style-type: none"> <li>From Vancouver, log on to the domain as <b>Administrator</b>, with a password of <b>P@ssw0rd</b>.</li> <li>Click <b>Start</b>, and then click <b>Run</b>.</li> <li>In the <b>Open</b> box, type <b>cmd</b> and then press ENTER.</li> <li>At the command prompt, type <b>ipconfig /release</b> and then press ENTER.</li> <li>At the command prompt, type <b>ipconfig /renew</b> and then press ENTER.</li> <li>At the command prompt, type <b>ipconfig /all</b> and then press ENTER.</li> </ol>

Document your current Internet Protocol TCP/IP settings.

**IP address:**

**Subnet mask:**




**Default gateway (if listed):**

**DNS servers:**



Are these addresses static, or are they given by DHCP? How can you tell?

**Answer**

<p><b>These addresses are given by DHCP. You can tell because the answer to the ipconfig command is DHCP Enabled = Yes.</b></p>	
<p> What type of address is configured?</p> <p><b>Answer</b></p> <p><b>Autoconfiguration IP Address.</b></p>	
1. (continued)	g. Minimize the command prompt window.
2. Verify IP address configuration.	<p>a. Click <b>Start</b>, and then click <b>Control Panel</b>.</p> <p>b. From the <b>Control Panel</b>, double-click <b>Network Connections</b>.</p> <p>c. Right-click <b>Local Area Connections</b>, and then click <b>Properties</b>.</p> <p>d. Click <b>Internet Protocol (TCP/IP)</b>, and then click <b>Properties</b>.</p> <p> <i>The Internet Protocol (TCP/IP) Properties sheet shows that the IP address should be assigned by DHCP, but ipconfig showed that the IP address was assigned by Autoconfiguration.</i></p> <p>e. Click <b>OK</b> to close the <b>Internet Protocol (TCP/IP) Properties</b> sheet.</p> <p>f. Click <b>OK</b> to close <b>Local Area Connections</b>, and then close <b>Network Connections</b>.</p>
3. From London, start the DHCP service.	<p>a. From London, restore the DHCP snap-in.</p> <p>b. Right-click <b>London.NWTraders.msft (192.168.1.200)</b>, click <b>All Tasks</b>, and then click <b>Start</b>.</p> <p> <i>Wait until the DHCP service starts before you continue to the next task.</i></p>
4. From Vancouver, renew the IP address.	<p>a. From Vancouver, restore the command prompt window.</p> <p>b. In the command prompt, type <b>ipconfig /renew</b></p> <p>c. Close the command prompt.</p>

## Lab D

### Exercise 1: Configuring the DNS Client for Windows XP Professional to Use DNS Server Addresses

Tasks	Detailed steps
1. From the Vancouver virtual machine, log on to the domain as <b>Administrator</b> . Use the <b>ipconfig</b> command to determine the current DHCP-supplied DNS server address.	<p>a. From Vancouver, log on to the domain as <b>Administrator</b>, with a password of <b>P@ssw0rd</b>.</p> <p>b. Click <b>Start</b>, and then click <b>Run</b>.</p> <p>c. In the <b>Open</b> box, type <b>cmd</b> and then press ENTER.</p> <p>d. At the command prompt, type <b>ipconfig /all</b> and</p>

then press ENTER.

Document your current Internet Protocol TCP/IP settings.

**IP address:**

**Subnet mask:**

**Default gateway (if listed):**




**DNS servers:**



Are these addresses static, or are they given by DHCP? How can you tell?

**Answer**

**These addresses are given by DHCP. You can tell because the answer to the ipconfig command is DHCP Enabled = Yes.**

1. (continued)	e. Minimize the command prompt window.
2. Configure the local area connection to use static addresses for TCP/IP. Use the TCP/IP addresses that you recorded earlier in this lab.	<p>a. Click <b>Start</b>, and then click <b>Control Panel</b>.</p> <p>b. From <b>Control Panel</b>, double-click <b>Network Connections</b>.</p> <p>c. Right-click <b>Local Area Connections</b>, and then click <b>Properties</b>.</p> <p>d. Click <b>Internet Protocol (TCP/IP)</b>, and then click <b>Properties</b>.</p> <p>e. Click <b>Use the following IP address</b>, and then use the settings that you recorded after completing Task 1 to enter the IP address, Subnet mask, and Default gateway in the corresponding boxes.</p> <p> <i>Notice that the Use the following DNS server addresses option is selected automatically.</i></p> <p>f. In the <b>Use the following DNS server addresses</b> section, enter the DNS server addresses that you recorded after completing Task 1.</p> <p>g. Click <b>OK</b> to accept the new settings, and then click <b>Close</b> to close <b>Local Area Connections</b>.</p> <p>h. Minimize the <b>Network Connections</b> window.</p> <p> <i>Note that the new settings are not applied to this computer until the Local Area Connections Properties sheet is closed.</i></p>
3. Verify the new TCP/IP settings by using the <b>ipconfig</b> command.	<p>a. Restore the command prompt window.</p> <p>b. At the command prompt, type <b>ipconfig /all</b> and then press ENTER.</p>
<div>  <p>Were the new settings applied?</p> <p><b>Answer</b></p> <p><b>Yes.</b></p> </div>	
3. (continued)	c. Minimize the command prompt window.

# Module 13

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Lab: Question and Answers

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## Lab: Question and Answers


### Lab A

#### Exercise 1: Monitoring Applications by Using Task Manager

Tasks	Detailed Steps
1. From the Denver virtual machine, log on as <b>Bob</b> , and then run <b>Lab13.cmd</b> , located in the C:\Lab13 folder.	a. From Denver, log on as <b>Bob</b> , with a password of <b>P@ssw0rd</b> . b. Run <b>Lab13.cmd</b> , located in the C:\Lab13 folder.  <i>Four applications (App1-1 through App1-5) will start on your computer.</i>
2. Use Task Manager to determine which application is using the majority of system resources, and which system resources (memory, disk, or processor) it is using.	a. From the <b>Action</b> menu, click <b>Ctrl+Alt+Del</b> , and then click <b>Task Manager</b> . b. On the <b>Applications</b> tab, review the programs that are running.
 Does the list contain any operating system processes? Why or why not?	
<b>Answer</b>  <b>No. The list contains no operating system process because the Applications tab lists only processes that are running in the current user's security context.</b>	
2. (continued)	c. Click the <b>Performance</b> tab.
 Which system resources are used heavily?	
<b>Answer</b>  <b>CPU usage is at or near 100 percent.</b>	
2. (continued)	d. Click the <b>Processes</b> tab.
 Which process is displaying the highest current CPU usage? Does this usage indicate a problem?	
<b>Answer</b>  <b>App1-5 has the highest CPU usage. This usage could indicate a problem, because this program's CPU usage is preventing other programs from gaining processor time.</b>	
2. (continued)	e. On the <b>View</b> menu, click <b>Select Columns</b> . f. In the <b>Select Columns</b> dialog box, select the <b>CPU Time</b> check box, and then click <b>OK</b> . g. Drag the border of the <b>Windows Task Manager</b> window down and to the right until you can see all columns and rows.
 Which process has used the most CPU time since your computer was started? Does this usage indicate a problem? Why or why not?	

**Answer**

**The System Idle process has used the most CPU time. This usage does not indicate a problem, because the time that is displayed for the System Idle process indicates that the computer's processor was not busy.**

3. Close the application that is using most of the CPU.
- Right-click the process that is using the majority of CPU, and click **end process**.
  -  *The Task Manager Warning message box appears. Read the message text. It tells you that terminating a process may cause undesired results.*
  - On the **Task Manager Warning** message box, click **No**.
  - Click **Applications**, right-click the application that is using most of the CPU, and then click **End Task**.
  - When the application is removed from the list, click **Performance**.




What is the total CPU usage now?

**Answer**

**Answers will vary but should be about 15 percent.**

3. (continued)
- Click **Applications**, select **App1-1**, **App1-2**, **App1-3**, and **App1-4**. Click **End Task**, and then minimize Task Manager.

## Exercise 5: Searching for Specific Events in a Saved Event Log File

Tasks	Detailed Steps
1. From the Denver virtual machine, open the saved System log file, C:\Lab13\Lab13.evt, and then view the first entries.	<ol style="list-style-type: none"> <li>From Denver, in the console tree, right-click <b>Event Viewer (Local)</b>, and then click <b>Open Log File</b>.</li> <li> <i>The file that may appear in the Open box will be the yyyy-mm-dd.evt file that you created in the previous exercise. Verify that you are opening the correct log file.</i></li> <li>In the <b>Open</b> dialog box, in the <b>File name</b> box, select <b>Lab13.evt</b>.</li> <li>In the <b>Log Type</b> box, click <b>System</b>, and then click <b>Open</b>.</li> <li>Double-click the first event in the log.</li> <li>Click the down arrow to view the information in the next event.</li> </ol>




Is examining each event the most efficient way to look for specific events? Why or why not?

**Answer**

**No. Because of the high number of events that appear in the logs, you will need some way to filter out the events that do not concern you during the present search.**



1. (continued)	f. Click <b>Cancel</b> to close the <b>Event Properties</b> sheet.
2. Filter the log entries so that only failure events appear, and then sort the entries by category.	a. In the console tree, right-click <b>Saved System Log</b> , point to <b>View</b> , and then click <b>Filter</b> . b. In <b>Event source</b> , select <b>DHCP</b> , and then click <b>OK</b> . c. In the <b>Saved System Log Properties</b> sheet, under <b>Event types</b> , clear all of the check boxes except for the <b>Warning</b> and <b>Error</b> check boxes, and then click <b>OK</b> . d. Double-click the first DHCP entry.
<div>  Based on the information in the <b>Description</b> section of the event, why does the computer not have a DHCP address?         </div> <div> <b>Answer</b>   <b>The Computer automatically configured an IP address.</b> </div>	
2. (continued)	e. Click <b>OK</b> to close the <b>Event Properties</b> sheet.
3. Remove System log filters.	a. In the console tree, right-click <b>Saved System Log</b> , point to <b>View</b> , and then click <b>Filter</b> . b. In <b>Event source</b> , select <b>All</b> , verify that all Event Types are selected, and then click <b>OK</b> .

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## Internet Links

The Web sites listed below provide additional resources.

Web Site	URL
Microsoft® Corporation	<a href="http://www.microsoft.com">http://www.microsoft.com</a>
Microsoft Developer Network	<a href="http://msdn.microsoft.com">http://msdn.microsoft.com</a>
Microsoft Visual Studio®	<a href="http://msdn.microsoft.com/vstudio/">http://msdn.microsoft.com/vstudio/</a>
Got Dot Net: Microsoft .NET Framework Community	<a href="http://www.gotdotnet.com/">http://www.gotdotnet.com/</a>
Microsoft Windows®	<a href="http://www.microsoft.com/windows">http://www.microsoft.com/windows</a>
Microsoft Internet Explorer	<a href="http://www.microsoft.com/windows/ie">http://www.microsoft.com/windows/ie</a>
Microsoft Learning	<a href="http://www.microsoft.com/learning">http://www.microsoft.com/learning</a>
Microsoft Product Support Services	<a href="http://support.microsoft.com">http://support.microsoft.com</a>
Microsoft Security	<a href="http://www.microsoft.com/security/">http://www.microsoft.com/security/</a>
Microsoft Accessibility	<a href="http://www.microsoft.com/enable">http://www.microsoft.com/enable</a>
Microsoft.com Privacy Statement	<a href="http://www.microsoft.com/info/privacy.mspix">http://www.microsoft.com/info/privacy.mspix</a>
Microsoft TechNet article, <i>User State Migration in Windows XP</i>	<a href="http://www.microsoft.com/technet/prodtechnol/winxppro/deploy/usermigr.mspix">http://www.microsoft.com/technet/prodtechnol/winxppro/deploy/usermigr.mspix</a>
Windows Update	<a href="http://windowsupdate.microsoft.com/">http://windowsupdate.microsoft.com/</a>
Windows XP Upgrade Advisor	<a href="http://www.microsoft.com/windowsxp/pro/upgrading/advisor.mspix">http://www.microsoft.com/windowsxp/pro/upgrading/advisor.mspix</a>

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