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Remote Desktop provides access from a remote location to a computer running the Microsoft Windows XP Professional operating system, giving you the flexibility to work on your Windows XP Professional-based computer from anywhere, at any time. Remote Desktop in Windows XP Professional is an extension of the Terminal Services functionality formerly available only in the Microsoft Windows 2000 Server family of operating systems. This chapter will help you to install, configure, and use Remote Desktop software.

For information on how to obtain the Windows XP Professional Resource Kit in its entirety, please see <http://www.microsoft.com/mspress/books/6795.asp>.

Overview

Remote Desktop provides access to the desktop of a computer running Windows XP Professional from a computer at another location. For example, connect to your office computer from home and use all your applications, files, and network resources just as if you were actually in your office, using your office computer.

Using Remote Desktop, you can run applications on a remote computer running Windows XP Professional from any other client running a Windows operating system. The applications run on the Windows XP Professional-based remote computer and only the keyboard input, mouse input, and display output data are transmitted over the network from the local computer, as shown in Figure 8-1.

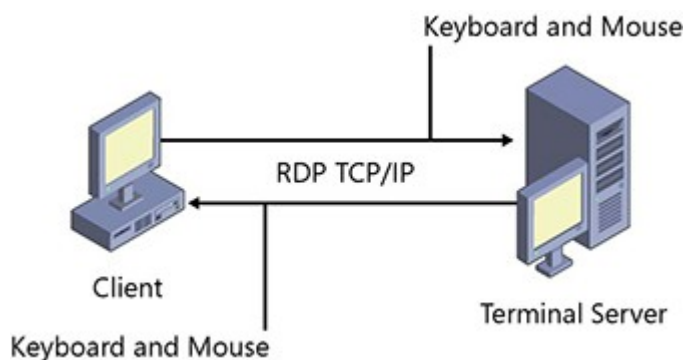


Figure 8-1 How Remote Desktop works

Remote Desktop is based on Terminal Services technology, which is also used for Remote Assistance. For more information on Remote Assistance, see Appendix C, “Tools for Troubleshooting.”

Remote Desktop Components

Remote Desktop consists of the following components, which are discussed in detail in this section:

- Remote Desktop Protocol
- Client software
 - Remote Desktop Connection

- Remote Desktop Web Connection

Remote Desktop Protocol

The Remote Desktop Protocol (RDP) is a presentation-layer protocol that allows a Windows-based terminal (WBT) or other Windows-based client to communicate with a Windows XP Professional-based computer. RDP works across any TCP/IP connection, including local area network (LAN), wide area network (WAN), dial-up, Integrated Services Digital Network (ISDN), digital subscriber line (DSL), or virtual private network (VPN) connections. RDP delivers to the client computer the display and input capabilities for applications running on a Windows XP Professional-based computer.

When using Remote Desktop Protocol from a Windows XP Professional-based client or other RDP 5.1-enabled client, many of the client resources are available within the session, including the client drives, audio sources, serial and parallel ports, and printers. See “Resource Redirection” later in this chapter for details.

In addition, the local and the remote computer share a clipboard, allowing data to be interchanged between applications running on the remote computer and applications running on the client computer. You can find additional information about the commands for using the shared clipboard in the “Using Remote Desktop Web Connection” section later in this chapter.

Client Software

The Windows XP Professional CD includes Remote Desktop Connection client software, which you can install on computers that are not running Windows XP Professional. You can connect using various types of client software based on the client computer’s operating system and your organizational needs. Client software is available for a wide variety of hardware devices, including personal computers and Windows-based terminals.

Remote Desktop Connection

The Remote Desktop Connection tool connects your computer (the client computer) to another computer running Windows XP Professional that has Remote Desktop enabled (the remote computer). These computers can be located anywhere—across the hall, across town, or across an ocean from each other—provided you have network access from the client to the remote computer, and the appropriate permissions at the remote computer. The Remote Desktop Connection tool is installed by default when you install Windows XP Professional or Microsoft Windows XP Home Edition. You can also install this tool manually on a computer running Microsoft Windows 95, Microsoft Windows 98, Microsoft Windows Millennium Edition (Windows Me), Microsoft Windows NT, or Microsoft Windows 2000 Professional operating system.

Tip Always download the latest version of Remote Desktop Connection software when installing on any version of Windows earlier than Windows XP. Go to the Microsoft Download Center (<http://www.microsoft.com/downloads>) and search for “Windows XP Remote Desktop Connection software” to find the latest version. To use Remote Desktop to connect to a remote Windows XP computer from an Apple Macintosh computer, search the Microsoft Download Center for “Remote Desktop Connection Client for Mac.”

Remote Desktop Web Connection

Remote Desktop Web Connection works like Remote Desktop Connection except that the features are delivered over the Web using Microsoft ActiveX technologies. When embedded in a Web page,

the Remote Desktop Web Connection ActiveX control can establish a Remote Desktop session with a remote computer running Windows XP Professional even if Remote Desktop Connection is not installed on the client computer. As described later in this chapter, the Remote Desktop Web Connection ActiveX control must be installed from a Web server with Internet Information Services (IIS) that has Active Server Pages (ASP) enabled.

Remote Desktop Web Connection includes the following features:

- Efficient deployment of Remote Desktop

Deploying a connection can be as easy as sending a URL.

- Support for roaming users

Users who are away from their computers can use Remote Desktop Web Connection to gain secure access to their primary workstation from any computer running Windows and Internet Explorer, provided you can reach the target computer on a network.

- A lowest-common-denominator, cross-platform system

Remote Desktop Web Connection can meet the needs of organizations that have multiple Windows operating systems and want identical client software on all their Windows-based computers.

- Delivery of extranet applications

Corporations that want to deploy Remote Desktop functionality to vendors, suppliers, or customers can use Remote Desktop Web Connection to distribute this functionality easily, inexpensively, and efficiently over the Internet.

Note For the latest version of Remote Desktop Web Connection, go to the Microsoft Download Center (<http://www.microsoft.com/downloads>) and search for “Remote Desktop Web Connection.”

Remote Desktop Features

Remote Desktop features include console security, enhanced color support, and resource redirection.

Console Security

Remote Desktop allows the user to connect to a remote console from a client location. *Console* is defined as the keyboard, mouse, and video monitor of the computer running Windows XP Professional with Remote Desktop enabled. When you enable a Remote Desktop session, the remote console “locks down” (disables display of the session on the remote computer’s monitor, and disables input via the remote computer’s keyboard and mouse).

Enhanced, Flexible Color Support

Remote Desktop supports as many colors as the client computer will support, up to 24-bit color. It automatically detects the color depth of the remote and local computer and adapts as required. Users can modify color settings in the Display Properties sheet.

Resource Redirection

You can use resource redirection features to enhance your Remote Desktop session.

File system redirection

Remote Desktop provides client drive redirection, making the local file system available to the Remote Desktop session. These local drives appear in the remote computer's Windows Explorer as *driveletter on clientmachinename*.

When you enable Remote Desktop, client-drive mapping is enabled by default. To disable it, you can use Terminal Services Group Policies, found at Computer Configuration\Administrative Templates\Windows Components\Terminal Services and User Configuration\Administrative Templates\Windows Components\Terminal Services. To disable it on an individual client computer, click the **Start** menu, point to **All Programs, Accessories, Communications**, and then select **Remote Desktop Connection**. On the **Local Resources** tab, clear the **Disk drives** check box.

Audio redirection

Audio redirection enables a client computer to play sounds from any application that plays .wav files on the Remote Desktop. With this feature, a user running an audio-enabled application at the remote desktop can hear the audio output from the local speakers as if the application were running on the client computer.

Audio redirection includes the following features:

- Audio mixing

When two or more applications play sounds, the resulting stream is an audio mix.

- Minimized impact of the audio stream input/output (I/O) on the RDP session

If there is a change in the network bandwidth between the client and remote computers, Remote Desktop renegotiates the sound-stream quality and uses the best sound quality for the existing bandwidth. No user action is required.

Printer redirection

Remote Desktop provides printer redirection, which routes print jobs from the Remote Desktop session to a printer attached to the client computer. When the user logs on to the remote computer, the remote computer detects the client's local printer and automatically installs the appropriate printer driver. If the local printer requires a driver that does not ship with Windows XP Professional, you will need to manually install the driver on the remote computer. Remote Desktop also redirects network printers on the client computer.

If multiple printers are connected to the client computer, Remote Desktop will send print jobs to the client printer's default printer.

The printer redirection feature is enabled by default in Windows XP Professional when you enable Remote Desktop. To disable it, use Terminal Services Group Policies. Use Remote Desktop Connection to disable printer redirection on an individual computer. On the **Local Resources** tab, clear the **Printers** check box.

Port redirection

Port redirection lets applications running in the session have access to the serial and parallel ports on the client, allowing them to access and manipulate devices such as bar-code readers or scanners.

Port redirection is enabled when you enable Remote Desktop. To disable it, use Terminal Services Group Policies. To disable port redirection on an individual computer, use Remote Desktop Connection. On the **Local Resources** tab, clear the **Serial ports** check box.

Deploying Remote Desktop

To deploy Remote Desktop, you must perform the following tasks:

- Enable Remote Desktop on a remote computer running Windows XP Professional.
- Enable users to connect to the remote computer running Windows XP Professional.
- Set up your client computer.
- Install Remote Desktop Connection software on your client computer.
- Install Remote Desktop Web Connection (if your Windows-based client is not running Windows XP Professional).

Enabling Remote Desktop on a Computer Running Windows XP Professional

When you install Windows XP Professional, Remote Desktop is disabled by default. To enable Remote Desktop, follow these steps:

1. Log on to your Windows XP Professional–based computer using an Administrator account.
2. Click **Start**, right-click **My Computer**, and then click **Properties**.
3. In the **System Properties** sheet, click the **Remote** tab.
4. Select the **Allow users to connect remotely to this computer** check box.

Note You must be logged on as an Administrator (or be a member of an Administrators group) to enable Remote Desktop.

Adding Users to the Remote Desktop Users Group

It's not enough to enable remote access on the computer; you also have to specify the users or groups that can remotely connect to the computer. To add or delete users or groups to the Remote Desktop Users group, follow these steps:

1. Log on to your Windows XP Professional–based computer as an Administrator.
2. Click **Start**, right-click **My Computer**, and then click **Properties**.
3. Click the **Remote** tab.
4. Click **Select Remote Users**.
5. In the **Remote Desktop Users** dialog box, click **Add**.
6. In the **Select Users** dialog box (shown in Figure 8-2), type the name of the user or group to add or click **Advanced** to search for objects.

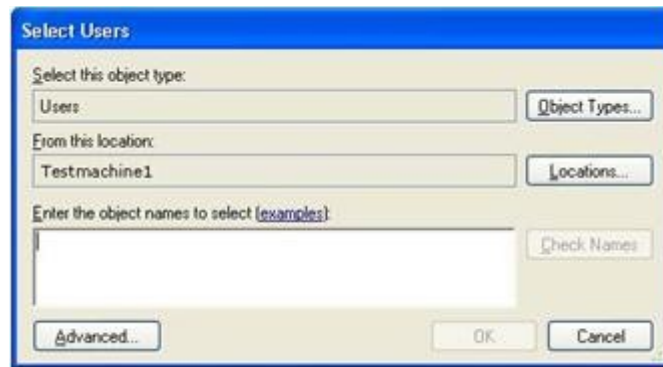


Figure 8-2 Adding users to the Remote Desktop Users group

7. Click **OK**.

The names of the selected users appear in the **Remote Desktop Users** dialog box.

Installing Client Software

To set up your computer as a Remote Desktop client, you need to install Remote Desktop Connection (or Terminal Services Client). A Web-based version of the client software, Remote Desktop Web Connection, can also be installed on the client computer. Also, your computer must be able to connect to the remote computer by means of a local area network (LAN), wide area network (WAN), dial-up, or Internet connection.

Note Terminal Services clients use TCP port 3389 to communicate with the remote computer.

Table 8-1 lists Windows operating systems and the corresponding client software that is required for deploying Remote Desktop.

Table 8-1 Client Software Versions for Various Operating Systems

| Operating System | Client Software | How to Access |
|----------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Windows XP (all versions) | Remote Desktop Connection (installed by default) | Start/Programs/Accessories/ Communications/Remote Desktop Connection. |
| Windows 2000 Professional | Remote Desktop Connection (installed by the user) | Install from the Windows XP Professional operating system CD, or obtain the latest version from the Microsoft Download Center. |
| Microsoft Windows 2000 Server | Terminal Services Client (installed by default if Terminal Services is installed) | Start/Programs/Terminal Services Client Recommended: Install from the Windows XP Professional operating system CD, or obtain the latest version from the Microsoft Download Center. |
| Windows 95, Windows 98, and Windows Me | Remote Desktop Connection (installed by the user) | Install from the Windows XP Professional operating system CD, or obtain the latest version from the Microsoft Download Center. |
| Windows NT 4.0 | Remote Desktop Connection (installed by | Install from the Windows XP Professional operating system CD, or obtain the latest version |

the user)

from the Microsoft Download Center.

Installing Remote Desktop Connection

For a client computer that is running Windows 95, Windows 98, Windows Me, Windows NT 4.0, or Windows 2000 Professional, you need to install Remote Desktop Connection from your Windows XP Professional operating system CD or obtain the latest version of Remote Desktop Connection client software from the Microsoft Download Center (<http://www.microsoft.com/downloads>).

To install Remote Desktop Connection on computers running earlier versions of Windows

1. Insert the Windows XP Professional operating system CD into your CD-ROM drive.
2. From the **Start** page, click **Perform Additional Tasks**, and then click **Set up Remote Desktop Connection**.
3. In the **Remote Desktop Connection-InstallShield Wizard**, follow instructions until installation is complete.

Even though you can install Remote Desktop Connection on earlier Windows platforms by using the procedure just described, the preferred approach is to download the latest version of Remote Desktop Connection software from the Microsoft Download Center (<http://www.microsoft.com/downloads>). Simply go to the site and search for “Windows XP Remote Desktop Connection software.”

Installing Remote Desktop Web Connection

Remote Desktop Web Connection is a Web application that consists of an ActiveX control, sample ASP pages, and HTML pages. When Remote Desktop Web Connection is deployed on a Web server, it allows users to connect to a Windows XP Professional–based computer by using Internet Explorer, even if Remote Desktop Connection or Terminal Services Client software is not installed on the computer from which the user is connecting.

Remote Desktop Web Connection is an optional World Wide Web service component of Internet Information Services (IIS), which is included in Windows XP Professional. Remote Desktop Web Connection must be installed by using **Add or Remove Programs**. For more information about installing Remote Desktop Web Connection on a Web server, see “Remote Desktop” in Windows XP Professional Help and Support Center.

When you install Remote Desktop Web Connection, the files are copied by default to the %systemroot%\Web\Tsweb directory of your Web server. You can use the included sample (Default.htm and Connect.asp) pages or modify them to meet the needs of your application.

Remote Desktop Web Connection requires that the client computer have a TCP/IP connection to the Internet or a network, and that it run Microsoft Internet Explorer version 4.0 or later.

When a user accesses a Web page on the IIS server that contains the embedded Remote Desktop Web Connection ActiveX Client control, this control is downloaded to the client computer and is stored in the default location for downloaded controls in Internet Explorer. The default connection page appears on the client computer, asking the user for server (specifically, the name or IP address of the remote computer) and user information. The Remote Desktop session opens in the Web page. Depending on the parameters passed and the settings of the remote computer, the Windows logon screen might appear.

Figure 8-3 illustrates the processes for downloading and using the Remote Desktop Web Connection client.

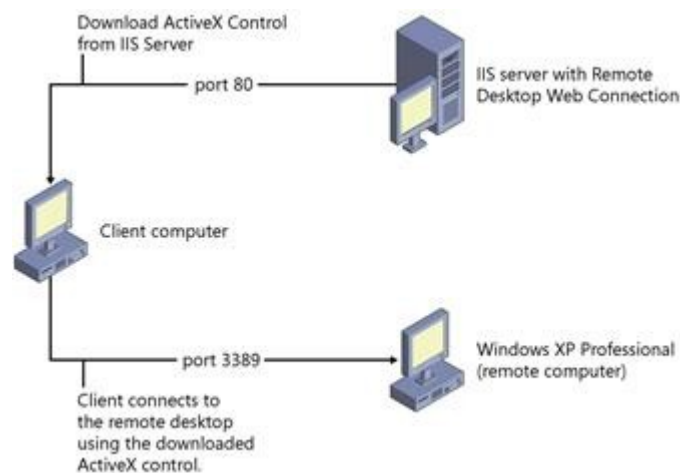


Figure 8-3 Downloading and using Remote Desktop Web Connection client

Note Although the IIS server must download the ActiveX control to the client computer, the IIS server does not connect to the Windows XP Professional–based remote computer at any time when you use Remote Desktop Web Connection. The client computer must connect to the remote computer over a TCP/IP connection.

Establishing a Remote Desktop Session

After installing the appropriate client software on the client computer, you can connect to the remote computer. The following discussion includes tips for using Remote Desktop components, keyboard shortcuts you can use during a Remote Desktop session, information about security enhancement by using encryption levels, and configuring of Remote Desktop by using group policies.

You can establish a session with the Windows XP Professional–based computer that has Remote Desktop enabled by using one of the following clients:

- Remote Desktop Connection
- Remote Desktop Web Connection

To create a new connection by using Remote Desktop Connection

1. Click **Start**, point to **Programs, Accessories, Communications**, and then click **Remote Desktop Connection**.
2. In the **Remote Desktop Connection** dialog box, in the **Computer** box, type the name or IP address of a computer running Windows XP Professional for which you have Remote Desktop permissions.
3. Click **Connect**.
4. In the **Log On to Windows** dialog box, type your user name, password, and domain (if required), and then click **OK**.

In Remote Desktop Connection, you can preconfigure your Remote Desktop sessions:

- If you want all your Remote Desktop sessions to respond exactly the same each time you

establish a session, click the **Options** button, preconfigure the desired settings, and click **Save As** under **Connection Settings**, as seen in Figure 8-4. Enter **filename** and click **Save**. Each time you want to open that session, click **Open**, and then double-click **filename**.

- If your video adapter does not support higher resolutions, you can set the display size of the Remote Desktop session to fit your display configuration. On the **Display** tab, move the **Remote desktop size** slider. Select the resolution that best fits your needs, and then click **Connect**.
- If you need to print information or check disk status from your Remote Desktop session, you can have the remote computer automatically connect to your computer's disk drives or printers. On the **Local Resources** tab, in **Local devices**, click **Disk drives** or **Printers**, and then click **Connect**.

Figure 8-4 illustrates the client logon interface and Table 8-2 lists the features for the interface.



Figure 8-4 Remote Desktop Connection interface

Note Configurations on the client logon interface are local policy settings; they can be overridden by Group Policy settings.

Table 8-2 Features Available on the Remote Desktop Connection Logon Interface

| Tab | Settings to Configure | Notes |
|-----------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | Enter remote computer name, network user name, network password, and network domain. |
| General | Enter or change logon and connection settings. | Selecting Save my password allows you to enter the password at connection time and store it for future Remote Desktop sessions. Saving connection settings allows you to use a configuration throughout an enterprise. |
| Display | Change remote desktop size (resolution) and colors. | Selectable session resolution and color depth allow you to adjust for specific needs. |
| | | Enabling sounds at the client computer enhances the session. |
| Local Resources | Control sound, keyboard, and local devices. | Applying Windows key combinations within the Remote Desktop session enhances the session. Allowing the session to control local devices automatically boosts productivity. |
| Programs | Start a program and change an icon. | Setting the session to start a specific program upon connection can improve efficiency. (This tab is available only for terminal server sessions.) |
| Experience | Set bitmap caching and compression. | Allowing certain features in this tab will provide a richer visual experience at higher bandwidths. |

Using Remote Desktop Web Connection

To use Remote Desktop Web Connection, you need to ensure that it is installed and running on the Web server. Your client computer must also have an active network connection and Internet Explorer version 4.0 or later installed.

To connect to a remote computer by using Remote Desktop Web Connection

1. On your client computer, open Internet Explorer.
2. In the **Address** box, type the Uniform Resource Locator (URL) for the home directory of the Web server hosting Remote Desktop Web Connection. The URL is “http://” followed by the Windows Networking name of your server, followed by the path of the directory containing the Remote Desktop Web Connection files (default = /Tsweb/. Note the forward slash marks). For example, if your Web site is registered with the DNS server as “admin1.northwind.com”, in the **Address** box you type: **http://admin1.northwind.com/tsweb/**, and then press ENTER.

3. From the **Remote Desktop Web Connection** page, in the **Server** box, type the name of the remote computer to which you want to connect.

You can specify the screen size and logon information for your connection.

4. Click **Connect**.

Keyboard Shortcuts in a Remote Desktop Session

You can apply Windows key combinations to your Remote Desktop sessions, or you can use the following Remote Desktop keyboard shortcuts (shown in Table 8-3) to perform many of the same functions.

Table 8-3 Keyboard Shortcuts in a Remote Desktop Session

| Windows Key Combinations for Client Computer | Equivalent Keys for Remote Desktop Session | Description |
|-----------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALT+TAB | ALT+PAGE UP | Switches between programs from left to right. |
| ALT+SHIFT+TAB | ALT+PAGE DOWN | Switches between programs from right to left. |
| ALT+ESC | ALT+INSERT | Cycles through the programs in the order they were started. |
| | CTRL+ESC | Switches the client between a window and full screen. |
| CTRL+ESC | ALT+HOME | Displays the Start menu. |
| | ALT+DELETE | Displays the Windows menu. |
| PRINT SCREEN | CTRL+ALT+MINUS (-) symbol on the numeric keypad | Places a snapshot of the active window in the Remote Desktop session on the clipboard. |
| CTRL+ALT+DEL | CTRL+ALT+END | Displays the Task Manager or Windows Security dialog box. (Only use CTRL+ALT+END to issue this command. CTRL+ALT+DEL is always interpreted by the client computer.) |
| ALT+PRINT SCREEN | CTRL+ALT+PLUS (+) symbol on the numeric keypad | Places a snapshot of the entire Remote Desktop session window on the clipboard. |

Security and Encryption in Remote Desktop

You can enhance the security of a Remote Desktop session by using any or all of these methods:

- Setting encryption levels to secure data communications between client and remote computer host

- Enabling password authentication of users at logon time
- Disabling clipboard sharing for Web-based clients
- Disabling printer redirection for Web-based clients
- Disabling file redirection for Web-based clients

These five security-enhancing methods, discussed in the following sections, use Group Policy settings. For more information about using Group Policy with Remote Desktop, see “Using Group Policy with Remote Desktop” later in this chapter.

Setting Encryption Levels

Data encryption can protect your data by encrypting it on the communications link between the client and the Windows XP Professional–based computer. Encryption protects against the risk of unauthorized interception of transmitted data. By default, Remote Desktop sessions are encrypted at the highest level of security available (128-bit). However, some older versions of Terminal Services client software do not support this high level of encryption. If your network contains such “legacy” clients, you can set the encryption level of the connection to send and receive data at the highest encryption level supported by the client.

There are two levels of encryption available:

- **High**
This level encrypts data sent from the client to the remote computer and from the remote computer to the client by using strong 128-bit encryption. Use this level only if you are sure that your client computer supports 128-bit encryption (for example, if it is running Windows XP Professional). Clients that do not support this level of encryption will not be able to connect.
- **Client Compatible**
This level encrypts data sent between the client and the remote computer at the maximum key strength supported by the client. Use this level if your client computer does not support 128-bit encryption.

You can set the encryption level of the connection between the client and the remote computer by enabling the **Set client connection encryption level** Terminal Services Group Policy setting.

Enabling Password Authentication at Logon Time

To enhance security of a Remote Desktop session over the Internet, you might want to prevent automatic password passing. To do this, you can enable the **Always prompt client for password** Terminal Services Group Policy setting. When this setting is enabled, you must supply your password in the Windows Logon dialog box whenever you start a Remote Desktop session.

Disabling Clipboard Redirection

For enhanced security, you might choose to disable Remote Desktop clipboard redirection for clients that connect via the Remote Desktop Web Connection client. You can disable clipboard redirection by using the **Do not allow clipboard redirection** Terminal Services Group Policy.

Disabling Printer Redirection

For enhanced security, you might choose to disable the printer redirection feature for clients that

connect via the Remote Desktop Web Connection client. You can disable printer redirection by using the **Do not allow printer redirection** Terminal Services Group Policy.

Disabling File Redirection

For enhanced security, you might choose to disable the file redirection feature for clients that connect via the Remote Desktop Web Connection client. You can disable file redirection using the **Do not allow drive redirection** Terminal Services Group Policy.

Using Group Policy with Remote Desktop

In Windows XP Professional, you can use Group Policy to configure Remote Desktop Connection settings, set user policy, and manage Remote Desktop sessions. You can enable Group Policy for users of a computer, for individual computers, or for groups of computers belonging to an organizational unit of a domain. To set policy for users of a particular computer, you must be an Administrator for that computer or have equivalent rights. To set policies for an organizational unit in a domain, you must be an Administrator for that domain or have equivalent rights.

Enabling Group Policy on an Individual Computer

To set Terminal Services policies settings for a particular computer or for users of that computer, open the Group Policy snap-in to edit the Local Group Policy Object (LGPO).

The Terminal Services group policies are not configured by default. You can configure each Group Policy to be either **disabled** or **enabled**.

To access Terminal Services Group Policy

1. From the **Start** menu, click **Run**, type **mmc**, and then click **OK**.
2. On the **File** menu, click **Add/Remove Snap-in**.
3. In the **Add/Remove Snap-in** dialog box, click **Add**.
4. In the **Add Standalone Snap-in** dialog box, click **Group Policy**, click **Add**, and then click **Finish**.
5. In the **Add Standalone Snap-in** dialog box, click **Close**.
6. In the **Add/Remove Snap-in** dialog box, click **OK**.
7. In the console pane, double-click **Computer Configuration**, click **Administrative Templates**, click **Windows Components**, and then click **Terminal Services**.

Terminal Services Group Policies are organized individually and in folders. Table 8-4 lists some of the Terminal Services Group Policy folders, policies, and functions that affect Remote Desktop.

Table 8-4 Group Policy Settings That Affect Remote Desktop

| Folder | Group Policy | Function |
|--------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Terminal Services | Allow users to connect remotely using Terminal Services | Enables Remote Desktop on computers targeted by this policy. |
| | Automatic reconnection | Allows Remote Desktop Connection clients to automatically reconnect if the network link is temporarily lost. |
| | Limit maximum color depth | Sets a limit on the color depth of any connection to a terminal server or Remote Desktop. |
| Client/Server Data Redirection | Allow audio redirection | Allows users to play the remote computer audio at the local computer during a Remote Desktop session. |
| | Do not allow clipboard redirection | Disables sharing of clipboard contents. |
| | Do not allow drive redirection | Disables mapping of client drives in Remote Desktop sessions. |
| | Do not allow COM port redirection | Disables redirection of data from the remote computer to client COM ports during the Remote Desktop session. |
| | Do not allow client printer redirection | Disables mapping of client printers in Remote Desktop sessions. |
| | Do not allow LPT port redirection | Disables redirection of data from the remote computer to client LPT ports during the Remote Desktop session. |
| | Do not set default client printer to be default printer in a session | Directs Terminal Services to automatically not specify the client printer as the default printer in the Remote Desktop session. |
| Encryption and Security | Always prompt client for password upon connection | Directs Terminal Services to always prompt users for passwords at logon. |
| | Set client connection encryption level | Directs Terminal Services to enforce the specified encryption level for all data sent between the client and the remote computer during Terminal Services connections. |

| | | |
|--------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client | Do not allow passwords to be saved | Controls whether passwords can be saved on this computer from Terminal Services clients. This setting is available only for Window XP Service Pack 2. |
|--------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

Troubleshooting Remote Desktop

This section contains troubleshooting information for Windows XP Professional Remote Desktop.

Server Name Not Found Error Message

If the remote computer cannot be found, the following message appears:

“The specified remote computer could not be found. Verify that you have typed the correct computer name or IP address, and then try connecting again.”

The problem might be in the computer name or IP address that you are using to connect. To solve this problem, verify that you have the correct computer name for the remote computer and that you have typed it in correctly. The correct computer name can be obtained from your administrator. If you have the correct computer name and are still unable to connect, try to connect using the actual IP address of the computer. This information can be obtained from your administrator.

A Specified Program Will Not Open

If you are having problems opening a specified program on the host computer (on the **Programs** tab of the Remote Desktop Connection), you might be connecting to a computer running Windows XP Professional. Specified programs will open only when connecting to a terminal server, not when starting a Remote Desktop session. Remote Desktop provides access to the actual console session of the remote computer. You cannot specify programs that open in a Remote Desktop session.

Cannot Log On to the Remote Computer

If you do not have the correct permissions to access a remote computer running Windows XP Professional, the following message appears:

“The local policy of this system does not permit you to log on interactively.”

You must add yourself to the Remote Desktop Users group (or to a group with administrative rights) so that you can use Remote Desktop.

Session Ends with a Data-Encryption Error Message

If a data encryption error prevents your client computer from communicating properly with the remote computer, the following message appears:

“Because of error in data encryption, this session will end. Please try connecting to the remote computer again.”

Try again to connect to the remote computer.

Additional Resources

These resources contain additional information and tools related to this chapter.

Related Information

- The Remote Desktop Protocol (RDP) Features and Performance link on the Web Resources page at <http://www.microsoft.com/windows/reskits/webresources>
- “Remote Desktop” in Windows XP Professional Help and Support Center