

### Selecting a Server or Domain to Administer

You must have administrator privilege, or server operator and account operator privileges for the domain or server you select to administer.

#### To select a domain or server

- 1 On the **Server** menu, click **Select Domain or Server**.
- 2 In the **Domain** box, type a domain name or server name. If you type a server name, be sure to precede it with two backslashes (\\).  
Or, in the **Select Domain** box, select a domain or server from the list. Note that the domains shown in the list box are all those trusted by the domain you belong to. To view the servers in any domain, double-click the domain name.
- 3 To turn off browsing for the selected domain, select the **Low Speed Connection** check box.  
If you type in a new domain, this check box will be cleared. If you type in a domain you have selected before, the check mark will reappear.









#### Tip

- Browsing over the network and especially over remote access connections can slow down performance significantly. The low speed connection you have selected is retained and stored.

## Checking Communication Ports

► On the **Server** menu, click **Communication Ports**.

Click one of the following buttons for information about the **Communication Ports** dialog box:

-  [Server](#)
-  [Port](#)
-  [User](#)
-  [Started](#)
-  [Port Status](#)
-  [Disconnect User](#)
-  [Send Message](#)
-  [Send To All](#)

See Also

[Checking Port Status](#)

[Disconnecting Users](#)

[Sending a Message to One User](#)

[Sending a Message to All Users on a Server](#)

[Sending a Message to All Users on a Domain](#)

**Server**

Shows the name of the server the computer is connected to.

**Port**

Displays each serial communication (COM) port configured for RAS.

**User**

Names the user connected to each active port.

**Started**

Shows the date and the time of each connection.

### **Port Status**

Click this [link](#) to see statistics for a particular port.

**Disconnect User**

Click this to disconnect the user on the selected port.



**Send Message**

Click this to send a message to the user on the selected port.

**Send To All**

















Click this to send a message to all users on the server or domain.

## Checking Port Status

### To check port status

- 1 On the **Server** menu, click **Communication Ports**.
- 2 In the **Port** list, select the port whose status you want to check and then click **Port Status**.

Click one of the following buttons for information about the **Port Status** dialog box:

	<a href="#">Port</a>
	<a href="#">CRC</a>
	<a href="#">Server</a>
	<a href="#">Timeouts</a>
	<a href="#">Modem Condition</a>
	<a href="#">Alignment</a>
	<a href="#">Line Condition</a>
	<a href="#">Framing</a>
	<a href="#">Port Speed (bps)</a>
	<a href="#">Hardware Overruns</a>
	<a href="#">Port Statistics</a>
	<a href="#">Buffer Overruns</a>
	<a href="#">Incoming Connection Statistics</a>
	<a href="#">Remote Workstation</a>
	<a href="#">Outgoing Connection Statistics</a>
	<a href="#">Reset</a>

See Also

[Hardware Condition](#)

[Line Condition](#)

**Port**

The COM port the current connection is using.

**Server**

The name of the active server.

**Modem Condition**

If the value is not Normal, a hardware failure has occurred and the modem or serial port may be damaged.

**Line Condition**

Helps you determine if an unauthorized user is attempting to access your network.

**Port Speed (bps)**

The speed in bits per second (bps) at which data is being transferred between the port and the modem.



**Port Statistics****Bytes in**

The number of bytes received by the device before the bytes have been decompressed.

**Bytes out**

The number of bytes sent by the device after the bytes have been compressed.

### **Incoming Connection Statistics:**

#### **Bytes in**

The total number of bytes received over this connection. This number represents the bytes after they have been decompressed.

#### **Frames in**

The number of logical network frames received from the client. The format of the frame depends on the network protocol in use. The maximum size of a frame is 1514 bytes. Well-written client/server applications transmit a small number of full or almost full frames. If you observe large numbers of small frames, the application you are running was probably not designed to run efficiently across slow links.

#### **Compression in**

The ratio of compression achieved on received data, where higher is better. For example, if 400 incoming bytes decompress into 1,000 bytes, the compression ratio is 60 percent. This value refers to software compression only. The compression ratio depends on the amount of redundancy in the data received. For example, text and bitmaps compress well, but executable files and previously compressed data do not.

Connections using IP protocol VJ header compression (if active) is figured into this number. This entry may be non-zero even when **Disable Software Compression** (which applies only to data, not headers) is selected.

**Note:** Software compression is not attempted on some frames, for example, multicast datagrams or very small frames. Such frames are not included in the compression computation.

## **Outgoing Connection Statistics:**

### **Bytes out**

The total number of bytes sent over this connection. This number represents the bytes before they have been compressed.

### **Frames out**

The number of logical network frames sent to the client. The format of the frame depends on the network protocol in use. The maximum size of a frame is 1514 bytes. Well-written client/server applications transmit a small number of full or almost full frames. If you observe large numbers of small frames, the application you are running was probably not designed to run efficiently across slow links.

### **Compression out**

The ratio of compression achieved on transmitted data, where higher is better. For example, if 1,000 bytes are compressed into 400 bytes before transmission, the compression ratio is 60 percent. This value refers to software compression only. The compression ratio depends on the amount of redundancy in the data being transmitted. For example, text and bitmaps compress well, but executable files and previously compressed data do not.

Connections using IP protocol VJ header compression (if active) is figured into this number. This entry may be non-zero even when **Disable Software Compression** (which applies only to data, not headers) is selected.

**Note:** Software compression is not attempted on some frames, for example, multicast datagrams or very small frames. Such frames are not included in the compression computation.

**CRC**

Errors caused by the failure of a cyclic redundancy check (CRC). A CRC error indicates that one or more characters in the data packet arrived garbled from the server.

**Timeouts**

A condition in which an expected character is not received in time. When this condition occurs, the software assumes that the data has been lost and requests that it be resent.

**Alignment**

A condition in which a character received is not the one expected. An alignment error usually happens when a character is lost or when a timeout error occurs.

**Framing**

An error in which an asynchronous character is received with an invalid start or stop bit. If this error occurs and the computer is unable to establish a remote access connection, the computer to modem (DCE to DTE) bps rate may be incorrect. This problem suggests that the modem configured for remote access may not be the correct one for the modem you're using. Changing the bps rate or the hardware flow control setting may alleviate the problem. Contact your system administrator if this error occurs continually and if you are unable to connect through RAS.

**Remote Workstation**

The name or network address of the remote client connected to this port.



**Hardware Overruns**

The number of times the sending computer has transmitted characters faster than the receiving computer can process at the hardware level. If this problem persists, reduce the bps rate.

**Buffer Overruns**

The number of times the sending computer has transmitted characters faster than the receiving computer can process at the software level. If this problem persists, reduce the bps rate or lower the CPU load on the computer.

**Reset**













Resets the statistics for this connection to zero.

## Checking Default Port Status

### To check port status

- 1 On the **Server** menu, click **Communication Ports**.
- 2 In the **Port** list, double-click the port whose status you want to check.

Click one of the following buttons for information about the **Port Status** dialog box:

-  [Port](#)
-  [Bytes Received](#)
-  [Server](#)
-  [CRC](#)
-  [Modem Condition](#)
-  [Timeouts](#)
-  [Line Condition](#)
-  [Framing](#)
-  [Port Speed \(bps\)](#)
-  [Data Overruns](#)
-  [Bytes Transferred](#)
-  [Reset](#)

See Also

[Hardware Condition](#)

[Line Condition](#)

**Port**

The COM port the current connection is using.

**Server**

The name of the active server.

**Modem Condition**

If the value is not Normal, a hardware failure has occurred and the modem or serial port may be damaged.

**Line Condition**

Helps you determine if an unauthorized user is attempting to access your network.



**Port Speed (bps)**

The speed in bits per second (bps) at which data is being transferred between the port and the modem.

**Bytes Transferred**

The number of characters sent from the RAS server to the Dial-Up Networking client since the connection was established or since you clicked **Reset**.

**Bytes Received**

The number of characters sent from the Dial-Up Networking client to the RAS server since the connection was established or since you clicked **Reset**.

**CRC**

Errors caused by the failure of a cyclic redundancy check (CRC). A CRC error indicates that one or more characters in the data packet arrived garbled from the server.

**Timeouts**

A condition in which an expected character is not received in time. When this condition occurs, the software assumes that the data has been lost and requests that it be resent.

**Framing**

An error in which an asynchronous character is received with an invalid start or stop bit. If this error occurs and the computer is unable to establish a remote access connection, the computer to modem (DCE to DTE) bps rate may be incorrect. This problem suggests that the modem configured for remote access may not be the correct one for the modem you're using. Changing the bps rate or the hardware flow control setting may alleviate the problem. Contact your system administrator if this error occurs continually and if you are unable to connect through RAS.

**Data Overruns**

The number of times the sending computer has transmitted characters faster than the receiving computer can process at the hardware level. If this problem persists, reduce the bps rate.

### Hardware Condition

If the value on the **Port Status** dialog box is not Normal, a hardware failure has occurred and the modem or serial port may be damaged. The following table shows the possible values for this field:

Value	Meaning
Normal	No errors have been detected on the modem. The modem is operating normally.
Modem not responding	The modem is not responding. Make sure that the modem has been turned on and is properly connected to the serial port.
Hardware failure	An unknown error has occurred. The modem or serial port may be damaged.
Incorrect modem response	The modem has responded with an unknown error. You may be using a modem that is not supported by RAS, or your modem configuration file may be corrupted. Contact your system administrator to ensure that your modem is supported by RAS. If you are using a supported modem, reinstall the remote access software.
Internal error	An internal software error has occurred. Restart RAS or restart your computer.



## Line Condition










The value on the **Port Status** dialog box helps you determine if an unauthorized user is attempting to access your network. The following table shows the possible values for this field:

Value	Meaning
Waiting for call	RAS has put the modem in Listen mode and is waiting for incoming calls. The modem is operating normally.
Connected, user authenticating	A telephone connection has been established. The user may be trying to be authenticated by the RAS server, or may be idle. If you get this condition followed by the waiting-for-call phase, then the user was unable to provide a correct user name, password, and/or domain name. If you repeatedly get this phase followed by the waiting-for-call phase, an unauthorized attempt to access your network may be under way.
Connected, user authenticated	<p>A telephone connection has been established and the user has entered a correct user name and password. If the user has callback permission and has requested callback, the connection is followed by the calling-back phase.</p> <p>If the calling-back phase is followed by a waiting-for-call phase, then the server was not able to reach the user at the specified number. The user may have provided an inaccurate callback number (in the case of Set by Caller callback), or an unauthorized attempt to access your network may be under way (in the case of Preset To callback).</p>
Calling back	The RAS server has determined that the user has a valid Windows NT user account, RAS permission, and callback permission. The RAS server is now calling the user back.
Line non-operational	The modem and/or serial port is not working. Make sure your modem has been turned on and is properly connected to the serial port.

## ISDN Port Status

The **Port Status** dialog box displays information about an ISDN connection. Use this information to troubleshoot errors.

Click one of the following buttons for information about the **Port Status** dialog box:

-  [Port](#)
-  [Server](#)
-  [Hardware Condition](#)
-  [Line Condition](#)
-  [Port Speed \(bps\)](#)
-  [Channels in Use](#)
-  [Incoming](#)
-  [Outgoing](#)
-  [Reset](#)

**Port**

The ISDN port the current connection is using.

**Server**

The name of the server your computer is connected to.

### **Hardware Condition**

If the value on the **Port Status** dialog box is not Normal, a hardware failure has occurred and the modem or serial port may be damaged. For details, see [Hardware Condition](#).

**Line Condition**

Helps you determine if an unauthorized user is attempting to access your network. For details, see [Line Condition](#).

**Port Speed (bps)**

The speed in bits per second (bps) at which data is being transferred on the line.

**Channels in Use**

The number of channels this connection is using.



**Incoming****Bytes**

The number of characters sent from the Dial-Up Networking client to the RAS server since the connection was established or since you clicked **Reset**.

**Frames**

The number of logical network frames received from the Dial-Up Networking client. The format of the frame depends on the network protocol in use. The maximum size of a frame is 1514 bytes. Well-written client/server applications transmit a small number of full or almost full frames. If you observe large numbers of small frames, the application you are running was probably not designed to run efficiently across slow links.

**Outgoing:****Bytes**

The number of characters sent from the RAS server to the Dial-Up Networking client since the connection was established or since you clicked **Reset**.

**Frames**
















The number of logical network frames sent from the RAS server. The format of the frame depends on the network protocol in use. The maximum size of a frame is 1514 bytes. Well-written client/server applications transmit a small number of full or almost full frames. If you observe large numbers of small frames, the application you are running was probably not designed to run efficiently across slow links.

## X.25 Port Status

### To check port status

- 1 On the **Server** menu, click **Communication Ports**.
- 2 In the **Port** list, select the port whose status you want to check.
- 3 Click **Port Status**.

Click one of the following buttons for information about the **Port Status** dialog box:

-  [Port](#)
-  [Timeouts](#)
-  [Server](#)
-  [Alignment](#)
-  [Modem Condition](#)
-  [Framing](#)
-  [Line Condition](#)
-  [Hardware Overruns](#)
-  [Port Speed \(bps\)](#)
-  [Buffer Overruns](#)
-  [Incoming](#)
-  [Remote Workstation](#)
-  [Outgoing](#)
-  [Reset](#)
-  [CRC](#)

### **Pausing the Remote Access Service**

Pausing the Remote Access Service blocks new incoming calls. Existing connections remain intact.

#### **To pause Remote Access**

- 1 In the **Remote Access Admin** dialog box, select the server you want to pause.
- 2 On the **Server** menu, click **Pause Remote Access Service**.

On the main screen, the condition of the server you selected changes from Running to Paused.

See Also

[Continuing the Remote Access Service](#)

### **Continuing the Remote Access Service**

Continuing RAS resumes acceptance of new incoming calls.

#### **To continue Remote Access**

- 1 In the **Remote Access Admin** dialog box, select the paused server you want to continue.
- 2 On the **Server** menu, click **Continue Remote Access Service**.

On the main screen the condition of the server you selected changes from Paused to Running.

See Also

[Pausing the Remote Access Service](#)

## Stopping Remote Access With Active Users

### To stop Remote Access

- 1 Pause the Remote Access Service to block new incoming calls.
- 2 Send a message to all connected users informing them that you are about to stop RAS and that they should save their data and disconnect from the LAN.
- 3 In the **Remote Access Admin** dialog box, select the server on which you want to stop Remote Access Service.
- 4 On the **Server** menu, click **Stop Remote Access Service**.  
A list of connected users is displayed. This list is updated every five seconds.
- 5 Monitor the list and wait for all users to disconnect.
- 6 When all users have disconnected, click **Yes**.

To exit the dialog box without disconnecting any users or stopping the service, click **No**.

**Note:** Stopping Remote Access Service can cause connected users to lose valuable data. Therefore, it is essential to make sure everyone has disconnected first.

See Also

[Pausing the Remote Access Service](#)

[Starting the Remote Access Service](#)

[Stopping Remote Access With No Active Users](#)

## **Stopping Remote Access With No Active Users**

### **To stop Remote Access**

- 1 On the **Server** menu, click **Stop Remote Access Service**.
- 2 Click **Yes**.

Or, to exit the dialog box without stopping Remote Access, click **No**.

See Also

[Starting the Remote Access Service](#)

## Starting the Remote Access Service

### To start Remote Access



On the **Server** menu, click **Start Remote Access Service**.

### Start Remote Access Service dialog box

Type the name of the server on which you want to start Remote Access Service.

See Also


[Stopping the Remote Access Service](#)



## Setting Remote Access Permissions

The following procedure assumes that the user has an account for the domain or server in focus.


### To grant or revoke dialin permission

 On the **Users** menu, click **Permissions**.

Click one of the following buttons for information about the **Remote Access Permissions** dialog box:

 [Users](#)

 [Grant Dialin Permission to User](#)

 [Call Back](#)

 [Grant All](#)

 [Revoke All](#)

If the focus is on a domain or a group of servers, then you are setting domain-wide permission. If the focus is on a workstation, then you are setting privileges for that workstation only.

**Note:** Do not assign callback permission to users who are connecting to the network through a switchboard.

See Also

[Setting Callback Permission](#)

[Permission Over a Low Speed Connection](#)

## **Users**

Lists user accounts for the selected server.

**Grant Dialin Permission to User**



Select this check box to grant permission to the user selected in the **Users** list.



Click to clear this check box to revoke permission from the user selected in the **Users** list.

**Grant All**

Grants permissions to all account names in the **Users** list.

**Revoke All**

Revokes permissions from all account names in the **Users** list.

### **Call Back**

#### **No Call Back**



Select this option to disable callback for a user account. This setting is the default.

#### **Set By Caller**



Select this option to prompt the user for a number.

#### **Preset To**



Select this option to call the user at a fixed telephone number. Type the fixed phone number in the text box. The server will call the user back at this number only.

## Permission Over a Low Speed Connection

Because browsing for users and their permissions over a remote connection takes a long time, it is often more convenient to turn browsing off by default.

### To turn off browsing



On the **Options** menu, click **Low Speed Connection**, unless already activated.

### To grant or revoke dialin permission



On the **Users** menu, click **Permissions**.

Click one of the following buttons for information about the **Remote Access Permissions -- Low Speed Mode** dialog box:



[User](#)



[Grant Dialin Permission to User](#)



[Call Back](#)

See Also

[Setting Remote Access Permissions](#)

### User

Type the user name of the person to whom you are granting permission or from whom you are revoking permission. Click **Find** to find the permissions for the user name in the **User** box.



**Grant Dialin Permission to User**

☐  
☐

Select this check box to grant permission to the user in the **User** box.

Click to clear this check box to revoke permission from the user in the **User** box.

### **Restricting Network Access**

The following procedure allows dial-in users to access the RAS server, but not the network.

- 1 On the RAS server, double-click the Network icon in Control Panel.
- 2 In the **Services** tab, click **Remote Access Service** and then click **Properties**.
- 3 In the **Remote Access Setup** dialog box, click **Network**.
- 4 Click **Configure** next to the protocols you are using.
- 5 Select **This computer only** to restrict users to the RAS server.
- 6 Click **OK**.
- 7 In the **Remote Access Setup** dialog box, click **Continue**.
- 8 For the new configuration to take effect, click **Yes** to restart the RAS server.

**Note:** To prevent users from changing the setting to the entire network, do not grant them administrator privilege. Only administrators can change this setting.

## Setting Callback Permission

If a user has callback permission, the server hangs up the line after authentication and calls the user back. You can assign one of two types of callback permission:

Type of Callback Permission	Description
Set by Caller	The server asks the user to type in a number at which to be called back.
Preset To	The server calls the user back at a predetermined number specified by the system administrator. This type of callback provides additional security by ensuring that the user is calling from a known location.

### To set up callback permission

- 1 On the **Users** menu, click **Permissions**.
- 2 In the **Call Back** box, click the type of callback permission you want to grant: **No Call Back**, **Set By Caller**, or **Preset To**.
- 3 If you click **Preset To** callback, type the user's telephone number in the **Preset To** text box.

**Note:** Do not assign callback permission to users connecting to the network through switchboards.

See Also

[Setting Remote Access Permissions](#)

[Permission Over a Low Speed Connection](#)

## Viewing Active Users

If you set focus to a domain, then all users who have connected to the network through that domain's RAS servers are shown. If you set focus to a server, then all users who have connected to the network through that server are shown.

### To see all active users



On the **Users** menu, click **Active Users**.

Click one of the following buttons for information about the **Remote Access Users** dialog box:



[User](#)



[Server](#)



[Started](#)



[User Account](#)



[Disconnect User](#)



[Send Message](#)



[Send To All](#)

See Also

[Selecting a Server or Domain to Administer](#)

[Seeing Details About Active Users](#)

**User**

This column shows the domain username of users currently connected to the server.

**Server**

This column shows the name of the server each user is connected to.

**Started**

This column shows the time each connection began.

**User Account**

Shows details about a selected user's account.



**Disconnect User**

Ends the selected user's connection.

**Send Message**

Sends a message to the selected user.

**Send To All**





Sends a message to all active users.

## Seeing Details About Active Users

### To see details about an active user account

- 1 On the **Users** menu, click **Active Users**.
- 2 On the **Remote Access Users** dialog box, select the user name of the account you want to see.
- 3 Click **User Account**.

Click one of the following buttons for information about the **User Account** dialog box:

-  [User Name and Full Name](#)
-  [Password Last Changed and Password Expires](#)
-  [Privilege Level](#)
-  [Call Back Privilege and Call Back Number](#)

See Also

[Viewing Active Users](#)

**User Name and Full Name**

Shows the user name and full name for the account you are viewing. To change these fields, use Control Panel. For more information, see the *Microsoft Windows NT Server Concepts and Planning Guide*.

**Password Last Changed and Password Expires**

Show the date and time the password was last changed and shows the interval set between required changes. To change the values for these fields, use Control Panel. For more information, see the *Microsoft Windows NT Server Concepts and Planning Guide*.

**Privilege Level**

Shows the user account's privilege level. To change this field, use Control Panel. For more information, see the *Microsoft Windows NT Server Concepts and Planning Guide*.

### **Call Back Privilege and Call Back Number**

Shows callback privilege and the number the server calls back if the privilege is **Preset To**. To change the values of these fields, access the **Remote Access Permissions** dialog box.

See Also

[Setting Callback Permission](#)



## **Sending a Message to One User**

### **To send a message to one user connected to a particular server**

- 1 In the **Remote Access Admin** dialog box, select the appropriate server.
- 2 On the **Server** menu, click **Communication Ports**.
- 3 In the **User** box, select the user and then click **Send Message**.

The **Send Message** dialog box displays the name of the user you are sending the message to.

- 4 Type your message in the box.

**Note:** Press CTRL+ENTER to move to each new line. Pressing ENTER alone sends the message.

## **Sending a Message to All Users on a Server**

### **To send a message to all users connected to a particular server**

- 1 In the **Remote Access Admin** dialog box, select the appropriate server.
- 2 On the **Server** menu, click **Communication Ports**.
- 3 In the **Communications Ports** dialog box, click **Send To All**.

The **Send Message** dialog box displays the name of the server the message is being sent to.

- 4 Type your message in the box.

**Note:** Press CTRL+ENTER to move to each new line. Pressing ENTER alone sends the message.

## **Sending a Message to All Users on a Domain**

### **To send a message to all users connected to a particular domain**

- 1 In the **Remote Access Admin** dialog box, select the appropriate domain.
- 2 On the **Users** menu, click **Active Users**.
- 3 In the **Remote Access Users** dialog box, click **Send To All**.

The **Send Message** dialog box displays the name of the domain the message is being sent to.

- 4 Type your message in the box.

**Note:** Press CTRL+ENTER to move to each new line. Pressing ENTER alone sends the message.

See Also

[Selecting a Server or Domain to Administer](#)


## Disconnecting Users

### To disconnect a user


- 1 On the **Users** menu, click **Active Users**.
- 2 On the **Remote Access Users** dialog box, select the account name of the user you want to disconnect.
- 3 Click **Disconnect User**.  
The **Disconnect User** dialog box displays the account name of the user that will be disconnected when you click **OK**.
- 4 To disconnect the user and revoke the user's remote access permission at the same time, select the **Revoke Remote Access Permission** check box.
- 5 To disconnect the line from a multilinked connection, select the **Disconnect this link only** check box and then click **OK**.

### Disconnect User

The **Disconnect User** dialog box displays the account name of the user that will be disconnected when you click **OK**.

 Select the **Revoke Remote Access Permission** check box to disconnect the user and revoke the user's Remote Access permission at the same time.

Or, to disconnect the user without revoking the user's Remote Access permission, click to clear this check box, and then click **OK**.

 Select the **Disconnect this link only** check box to disconnect this line from a multilinked connection.

Or, to disconnect all users with the displayed name, click to clear this check box.

## Troubleshooting

## Backward Compatibility

For backward compatibility, the RAS servers for version 1.1 or earlier, should contain the following minimal configuration. If servers with earlier versions of the RAS do not have this minimal configuration, Windows NT-based workstations will get the following error message when dialing in: "Server name table full."

## LANMAN.INI File

[illegible]

### PROTOCOL.INI File

```
[netbeui_xif]
sessions=160
ncbs=180
name=160
[tcpip_xif]
nbssessions=100
;numnames=85 ;Commenting out the numnames
;line lets the TCP/IP stack
;assume the highest value possible.
```

## X.25 Network

An X.25 network transmits data with a packet-switching protocol, bypassing noisy telephone lines. You can access an X.25 network in two ways:

Method of access	Server / Client
Asynchronous PADS	Client (Windows NT Workstation)
Direct connection	Server (Windows NT Workstation and Windows NT Server) and client (Windows NT Workstation)

## Configurations

RAS offers the following X.25 configurations:

### Client



Dial-up PAD



Direct connection through X.25 smart card

### Server



Direct connection through X.25 smart card

## ISDN Overview

Integrated Services Digital Network (ISDN) offers a much faster communication speed than a telephone line. The phone line communicates at 9600 bits per second (bps), whereas ISDN communicates at speeds of 64 or 128 Kb per second. Businesses that need this kind of speed usually have a large telecommuting work force or need to do extensive administrative tasks remotely, such as install software on off-site workstations.

RAS sees ISDN as a combination of the following:



Serial port



ISDN card connected to the port

See Also

[Installing an ISDN Card](#)



### **Installing an ISDN Card**

An ISDN line comes with two B channels and one D channel. Each B channel transmits data at 64 Kb per second. The D channel is for signaling and transmits data at 16 Kb per second.

Install ISDN cards on the server and on each client. (For instructions, see the card's documentation.) Then configure each B channel to act as a port, or configure all B channels to act as a single port.

If your business has a large number of people calling in to the RAS server, configure each channel to operate as a port. This configuration allows the greatest number of people to call in.

However, if your business has few people calling in, but needs more data-transmission speed, configure both channels to act as a single port. With this configuration, line speed increases to 128 Kb per second. If you have installed more than one card, you can combine the channels on each card and get even faster transmission speed.

To configure the ISDN card to work with RAS clients, see online help for Dial-Up Networking.

**Unable to find the primary domain controller for the domain that you selected.**

**Possible Reasons**





- ☐ The primary domain controller is no longer running.
- ☐ There is a break in the network connection between this computer and the primary domain controller.
- ☐ Your Ethernet network cable has been improperly terminated.

**Recommended Actions**





- ☐ Restart the primary domain controller or promote a backup domain controller to the role of primary domain controller. For more details about promoting backup domain controllers, see the Windows NT Advanced Server documentation.
- ☐ Check your network connections and cabling.
- ☐ Check your network cabling to make sure that your Ethernet segment has been properly terminated.

**Unable to obtain detailed information from the specified Remote Access server.**

**Possible Reasons**






-  The server is no longer running.
-  The server is running, but Remote Access Service is no longer running on that server.
-  There is a break in the network connection between this computer and the specified RAS server.
-  Your Ethernet network cable has not been properly terminated.

**Recommended Actions**






-  Restart the server.
-  Restart Remote Access Service. Check the error and audit records to determine why Remote Access was stopped on that server.
-  Check your network connections and cabling.
-  Check your network cabling to make sure that your Ethernet segment has been properly terminated.

**Unable to find Remote Access servers on the network.**

**Possible Reasons**





-  You have misspelled the domain name or the server name.
-  The RAS servers in the domain you selected are not running.
-  The servers are running but Remote Access Service is not running on any of them.
-  There is a break in the network connection. Check your network connections and cabling.
-  Your Ethernet network cable has not been properly terminated.

**Recommended Actions**

-  Check your spelling. Server names begin with two backslashes (\\).
-  Restart the server(s).
-  Restart Remote Access Service on your servers. Check the error and audit records to determine why Remote Access Service stopped on those servers.
-  Check your network connections and cabling.
-  Check your network cabling to make sure that your Ethernet segment has been properly terminated.




**Unable to write user security information to the master user account database for the domain or server that you selected.**

**Possible Reasons**

-  The primary domain controller is no longer running.
-  The user account no longer exists in the master copy of the user account subsystem.
-  There is a break in the network connection between this computer and the primary domain controller.
-  Your Ethernet network cable has not been properly terminated.

**Note:** If you focus on a domain or a server that is participating in domain security, then the user security information is written to the primary domain controller. If you focus on a single server, then the user security information is written to that server's user account subsystem.

**Recommended Actions**

-  Restart the primary domain controller or promote a backup domain controller to primary domain controller. For more details about promoting backup domain controllers, see the Windows NT Advanced Server documentation.
-  Check your network connections and cabling.
-  Check your network cabling to make sure that your Ethernet segment has been properly terminated.

**Unable to verify that you have administrator privileges or server operator and account operator privileges for the domain or server that you selected.**

**Possible Reasons**

- ☐ You misspelled the domain or server name.
- ☐ The primary domain controller is no longer running.
- ☐ There is a break in the network connection between this computer and the primary domain controller.
- ☐ Your Ethernet network cable has not been properly terminated.

**Recommended Actions**

- ☐ Check your spelling. Server names must begin with two backslashes (\\).
- ☐ Restart the primary domain controller or promote a backup domain controller to the role of primary domain controller. For more details about promoting backup domain controllers, see the Window NT Advanced Server documentation.
- ☐ Check your network connections and cabling.
- ☐ Check your network cabling to make sure that your Ethernet segment has been properly terminated.

**Unable to enumerate user information on the master user account database for the domain or server that you selected.**

**Possible Reasons**

- ☐ The Primary domain controller is no longer running.
- ☐ There is a break in the network connection between this computer and the primary domain controller.
- ☐ Your Ethernet network cable has not been properly terminated.

**Note:** If you focus on a domain or to a server that is participating in domain security, then the user security information is written to the primary domain controller. If you focus on a standalone server, then the user security information is written to that server's user account subsystem.

**Recommended Actions**

- ☐ Restart the primary domain controller or promote a backup domain controller to the role of primary domain controller.
- ☐ Check your network connections and cabling.
- ☐ Check your network cabling to make sure that your Ethernet segment has been properly terminated.

