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# ***Remote Server Management Overview***

Managing servers remotely provides greater server security.

You can lock servers in a safe place, remove the keyboards and monitors, then start a remote console session from a workstation whenever you need to access a server's console.



# Managing

NetWare 5 provides DOS-based and Java-based remote console utilities, both of which let you use a network workstation as a server console.

## Important:

For security reasons, the version of RConsoleJ included in the initial release of NetWare 5 must only be used inside firewalls.

To determine which remote console utility best fits your needs, refer to the following table.

Function	DOS-based RCONSOLE	Java-based RConsoleJ
Use console commands as you would at the server console	Yes	Yes
Scan directories and edit text files in NetWare and DOS partitions on a server (using edit.nlm)	Yes	Yes
Transfer files to, but not from, a server	Yes	No
Control the server using an IP connection	No	Yes
Control the server from another server	No	Yes
Stop or start a server	Yes	Yes
Install or upgrade NetWare	Yes	No

# Using DOS-Based Remote Console

## Choosing a Connection Type

You can run remote console sessions through a LAN or WAN connection, or via a modem or a null modem cable.

- ◆ **LAN or WAN connection.** A station establishes a remote console session with a server on the local or wide area network, connected by cabling or by a wide-area link using IPX/SPX protocol. See [“Running RCONSOLE Through a LAN or WAN Connection” on page 4.](#)
- ◆ **Modem connection.** A station establishes a remote console session with a server through a modem or null modem cable. A null modem cable is a direct serial connection between two computers, as opposed to a network connection. See [“Preparing to Run a Remote Console Session Over a Modem” on page 7](#) and [“Running RCONSOLE Over a Modem” on page 9.](#)

## Running RCONSOLE Through a LAN or WAN Connection

To run a remote console session over a LAN or WAN connection you must do the following:

1. Load the RSPX NLM on the server. (This also loads REMOTE NLM.)
2. Run RCONSOLE.EXE from the workstation to access the server.

Each of these tasks is described in detail in the following procedure.

### Prerequisites

Checklist:

- RSPX NLM (and REMOTE NLM)
- 75 KB of available memory on the server
- A workstation running DOS 3.30 or later version
- 300 KB of available memory on the workstation
- A search drive mapped to the directory where the RCONSOLE.EXE file is located (usually SYS:PUBLIC)
- The remote console password established when loading RSPX.NLM

If you want to use the supervisor password, enter it when loading RSPX.NLM.

Note:

You don't need the Supervisor object right to the remote server because RCONSOLE does not use Novell Directory Services.

## Procedure

Procedure:

**1. At the server console prompt, type**

```
LOAD RSPX <Enter>
```

You are prompted to enter a password to use when you establish the remote console session from a workstation. If you want to use the supervisor password, you must enter it at this point.

By default, the RSPX NLM requires packet signatures to ensure security. You can change the default setting if desired. For more information about packet signatures, see “[When to Use Packet Signature.](#)”

Once the RSPX NLM is loaded on the server, you can start a remote session from a workstation. (REMOTE NLM is automatically loaded with RSPX NLM.)

**2. Go to the workstation and log in to the network.**

**3. Make sure you have a drive mapped to the directory where the RCONSOLE.EXE file is located (usually SYS:PUBLIC).**

If you don't have a drive mapped, type

```
MAP S16:=SYS:PUBLIC <Enter>
```

**4. Start RCONSOLE by completing one of the following steps:**

**4a. If you know the name of the server, type the following command and then skip to [Step 7](#):**

```
RCONSOLE servername <Enter>
```

**4b. If you know only part of the server name, type the partial name followed by an asterisk, select a server from the displayed list, and continue with [Step 7](#).**

**4c. If you do not know the name of the server, type the following command.**

```
RCONSOLE <Enter>
```

**5. Select LAN from the Connection Type menu.**

A list of available servers appears.

**6. Connect to the server, using one of the following methods:**

**6a. Select a server from the list.**

**6b. Type the name of the server.**

**6c. If the server name doesn't appear in the list and you know the IPX internal network number of the server:**

◆ Press <Insert>.

◆ Enter the IPX internal network number in hexadecimal notation.

**7. At the prompt, type the password you established when you loaded REMOTE.NLM on the server.**

The remote console session is now open. The workstation screen displays the same information you would see on the server console screen.

## Note:

Graphical screens are not displayed in remote console utilities.

When the utility launches, if a graphical screen is displayed on the server console screen, the System Console screen is displayed in the remote view.

After a remote console session starts, if someone at the server console switches to a graphical screen, the switch is not reflected on the remote screen.

### 8. To view a menu of options for the remote session, press <Alt>+<F1>.

The remote console “Available Options” menu appears.

During an RCONSOLE session you can use the keys described in the following table. All the other keys function as if you were at the server console.

Table 1  
**RCONSOLE Keys**

Key	Description
<Alt>+<F1>	Access the “Available Options” menu.
<Alt>+<F2>	Exit Remote Console.
<Alt>+<F3>	Cycle backward through the current console screens.
<Alt>+<F4>	Cycle forward through the current console screens.
<Alt>+<F5>	Show the address of the workstation you are using for this session.
<F1>	Display Remote Console help when the Remote Console “Available Options” menu is on the screen. (When another screen is showing, this key displays the relevant server help information.)

### 9. To end the remote console session, press <Alt> + <F2> from the console prompt or select **End Remote Session with Server** from the **Available Options** menu.

### 10. Choose **Yes** from the **Quit Remote Console Session?** box.

If you specified the name of a specific server as a parameter when you executed RCONSOLE, the remote session with that server is ended.

If you selected the server from a list of available servers, the available servers list is redisplayed. To exit from the list of servers, press <Esc> and then select **Yes** from the **Exit Remote Console?** menu.



## Preparing to Run a Remote Console Session Over a Modem

Before running remote console sessions over a modem or null modem cable, you must complete the following steps:

1. On the server, load REMOTE.NLM, RS232.NLM, and the appropriate communications port driver, such as AIOCOMX.NLM.
2. Create a callback file, if desired.
3. Load necessary workstation files.

Each of these tasks is explained in the following procedure.

### Prerequisites

Checklist:

- The following NLM files:
  - REMOTE.NLM
  - RS232.NLM
- A communications port driver such as AIOCOMX

### Procedure

Procedure:

#### 1. At the server console prompt, type

```
[LOAD] REMOTE [password] <Enter>
```

You must provide a password to use when establishing the remote console session from a workstation. If you do not specify the password as a parameter, you are prompted to enter one.

If you want to use the supervisor password, you must enter it at this point.

#### 2. Complete the following steps to load the communications interface module and driver:

##### 2a. Load the communications port driver by typing

```
[LOAD] AIOCOMX <Enter>
```

This driver is provided with NetWare. You can replace it with an equivalent driver if you choose.

##### 2b. Load the modem connection NLM by typing

```
[LOAD] RS232 [comm_port] [modem_speed] [N] [C] <Enter>
```

Replace *comm\_port* with the communications port number (1 or 2).

Replace *modem\_speed* with the baud rate (2400, 4800, ... 115200).

Use the "N" parameter if you are using a null modem cable.

Use the “C” parameter if you want to use the callback option. The callback option is explained in the next step.

### 3. (Optional) Create a CALLBACK.LST file in the SYS:SYSTEM directory on the server.

A callback list is a list of modem (telephone) numbers that are authorized to access the server.

The server uses the callback option only if the “C” parameter was used when the RS232 NLM was loaded on the server.

When a call comes in, the server notes the number of the modem calling and then terminates the connection. The server then checks for the number in the callback list. If the number is in the list, the server calls the number and reestablishes the modem connection. If the number is not in the list, the server ignores the call.

Use a text editor or the EDIT utility to create the file. If you need help creating the file, see [“Using Edit to Create and Edit Text and Batch Files.”](#)

#### 3a. In the file, enter a list of callback numbers that are authorized to start a remote console session.

For example, you might list three numbers:

```
18015552257
5554321
4269
```

The first is a long distance number (with an area code), the second is a local number, and the third is an internal extension number.

#### 3b. Save the text file.

Prepare the workstation as a remote console by creating a directory and copying the following RCONSOLE run files to it:

```
RCONSOLE.EXE
RCONSOLE.HEP
RCONSOLE.MSG
IBM_RUN.OVL
_RUN.OVL
IBM_AIO.OVL
_AIO.OVL
TEXTUTIL.HEP
TEXTUTIL.IDX
TEXTUTIL.MSG
```

It doesn't matter where you place the directory or what you name it. The run files come with your NetWare system.

You are now ready to run a remote console session over a modem.

# Running RCONSOLE Over a Modem

## Prerequisites

### Checklist:

- A workstation with a Hayes\*-compatible modem (2400, 4800, ... 115200 baud) or a null modem cable connected to the server
- 300 KB of available memory on the workstation
- REMOTE.NLM, AIO.NLM, RS232.NLM, and the communications port driver (such as AIOCOMX) loaded on the server
- All necessary files loaded on the workstation
- The remote console password

## Procedure

### Procedure:

1. **At the workstation, change to the directory you created for the remote files (described in [“Preparing to Run a Remote Console Session Over a Modem” on page 7](#)) and type**  
  
RCONSOLE <Enter>
2. **Select Asynchronous from the Connection Type menu.**
3. **If this is the first session from this workstation, select Configuration from the Asynchronous Options menu, and then continue with Step 4. Otherwise, skip to [Step 7](#).**
4. **In the Current Modem Configuration window, set the options according to your modem and workstation specifications.**
  - 4a. **Use the arrow keys to highlight a field and press <Enter>.**
  - 4b. **If the cursor becomes active in the field, type in the appropriate information.**
  - 4c. **If a selection is displayed, select the appropriate item.**

The UserID and the Call Back fields must be filled in. Choose any string for the UserID. For example, you may use your name or your phone number. This ID is displayed on the server console during the remote session.
  - 4d. **In the Callback field, enter the modem (telephone) number you are calling from.**

If the Call Back option is used, this number must be in the callback list. See [“Preparing to Run a Remote Console Session Over a Modem” on page 7](#).
5. **Press <Esc> to exit the window.**
6. **Choose Yes from the Save Changes? box to save your configuration.**

## 7. Choose Connect to Remote Location from the Asynchronous Options menu.

A list of available servers is displayed.

## 8. Select a server.

If you are using the callback option, the server terminates the connection and compares the number in the modem configuration file with the numbers in the callback list.

If the number in the modem configuration file is in the list, the server dials the number to establish the connection and then displays the console prompt. If the number is not in the list, the server displays an error message.

## 9. Once the console prompt is displayed, the remote console session is active. Press <Alt>+<F1> to view the “Available Options” menu.

During the RCONSOLE session, you may use the keystrokes shown in [“RCONSOLE Keys” on page 6](#). All other keys function as if you were at the server console.

### Note:

RCONSOLE does not provide guaranteed packet delivery. When sending or receiving packets from a server with extensive disk or LAN activity, RCONSOLE may “time out.”

If this happens, you receive a “No response from server” or an “Unable to send request to server” message. If you receive one of these messages, retry the operation.

### Note:

Graphical screens are not displayed in remote console utilities.

When the utility launches, if a graphical screen is displayed on the server console screen, the System Console screen is displayed in the remote view.

After a remote console session starts, if someone at the server console switches to a graphical screen, the switch is not reflected on the remote screen.

## 10. To exit the remote console session, press <Alt>+<F2> at the console prompt or select End Remote Session from the Available Options menu and then select Yes.

## Loading Remote Modules on Bootup

You can put commands in the AUTOEXEC.NCF file to load remote console modules each time the server is booted.

Since these modules require the remote password, you may choose to place an encrypted version of the password in the file, too. The method described in this section secures the server console by hiding the remote console password from users who access the AUTOEXEC.NCF file.

The following procedure explains how to set an encrypted password and autoload REMOTE.NLM with the encrypted password.

### Procedure:

#### 1. To encrypt a password for REMOTE.NLM, type the following:

```
[LOAD] REMOTE <Enter>
```

**2. Execute the following command:**

```
REMOTE ENCRYPT <Enter>
```

The server prompts you to enter the password to be encrypted.

**3. Enter the password you want to use for remote console sessions.**

If you want to use the supervisor password, you must enter it at this point.

The system displays the encrypted value and a message asking if the LOAD REMOTE command should be written to the SYS:SYSTEM\LDREMOTE.NCF file.

**4. To include the LOAD REMOTE command with your encrypted password in the LDREMOTE.NCF file, respond Yes.**

The system places a LOAD REMOTE command into the LDREMOTE.NCF file with the encrypted password as a parameter.

You can execute the LDREMOTE.NCF file with the encrypted password whenever you want to load REMOTE.NLM, or you can place the command to execute the file into your AUTOEXEC.NCF file by completing all the steps in this procedure. Either option will save you from having to type in the encrypted password, which is often quite long, every time you load REMOTE.NLM.

**5. To autoloading REMOTE.NLM with an encrypted password on bootup, use either NWCONFIG or EDIT to open the AUTOEXEC.NCF file.**

For information about editing .NCF files, see [“Using EDIT to create and Edit Text and Batch Files.”](#)

**6. Move the cursor to the end of the file and type the following:**

```
LDREMOTE
```

**6a. For LAN or WAN connections, type the following after LDREMOTE:**

```
LOAD RSPX
```

**6b. For modem connections, type the following after LDREMOTE:**

```
LOAD AIOCOMX
```

The AIOCOMX driver is provided with NetWare. You can replace it with an equivalent driver if you choose.

```
LOAD RS232 [comm_port] [modem_speed] [N] [C]
```

Replace *comm\_port* with the communications port number (1 or 2).

Replace *modem\_speed* with the baud rate (2400, 4800, ... 115200).

Use the “N” parameter if you are using a null modem cable.

Use the “C” parameter if you want to use the callback option. For information and instructions, see [“Preparing to Run a Remote Console Session Over a Modem” on page 7.](#)

**7. Exit and save the AUTOEXEC.NCF file.**

The server will now automatically load the necessary remote modules and your encrypted password whenever it is booted.

For more information about utilities related to using a remote console, see “[RCONSOLE](#),” “[REMOTE](#),” “[RS232](#),” or “[RSPX](#)” in the Utilities Reference library.

## Upgrading Files on a Remote Server

You can use a remote console to copy new NetWare files to a server. Files can be copied from diskettes, a CD-ROM drive, a local drive, or from a network directory. To copy new NetWare files to volume SYS: on a remote server, follow these steps.

### Prerequisites

Checklist:

- Workstation and server prepared for remote console sessions. See “[Running RCONSOLE Through a LAN or WAN Connection](#)” on page 4 and “[Preparing to Run a Remote Console Session Over a Modem](#)” on page 7.

### Procedure

Procedure:

1. **Start a remote console session with the server.**

2. **At the remote console, type**

```
[LOAD] NWCONFIG <Enter>
```

3. **Choose Copy Files Option.**

4. **Choose a remote path.**

This is the path from which the files will be installed. You may load files from NetWare diskettes, a local drive, a CD-ROM, or a network drive.

5. **Follow the subsequent prompts.**

## Installing or Reconfiguring Applications on a Remote Server

You can use a remote console session to install or reconfigure Novell or third-party products on a remote server. Follow these steps.

### Prerequisites

Checklist:

- Workstation and server prepared for remote console sessions. See “[Running RCONSOLE Through a LAN or WAN Connection](#)” on page 4 and “[Preparing to Run a Remote Console Session Over a Modem](#)” on page 7.

## Procedure

Procedure:

1. **Start a remote console session with the server.**
2. **At the remote console, type**  
[LOAD] NWCONFIG <Enter>
3. **Choose Product Options > View/Configure/Remove Installed Products.**  
A list of currently installed products (if any) appears.
4. **To reconfigure an installed product, select that product and press <Enter>. Follow screen instructions.**
5. **To install a new product, press <Insert>.**  
A message states that the product will be installed from the A: drive, unless otherwise indicated.
6. **If necessary, insert the product installation diskette into the drive.**
7. **Press <Enter> to accept the default, drive A:, or press <F3> to enter a different installation source path.**
8. **Follow the prompts to install the product.**

## Rebooting a Remote Server

You can reboot a NetWare server from a remote console by first modifying the server's AUTOEXEC.BAT file and then executing another .NCF file that you create for this purpose.

### Prerequisites

Checklist:

- Workstation and server prepared for remote console sessions. See ["Running RCONSOLE Through a LAN or WAN Connection" on page 4](#) and ["Preparing to Run a Remote Console Session Over a Modem" on page 7](#).
- Commands in the server AUTOEXEC.NCF file that load the remote modules. See ["Loading Remote Modules on Bootup" on page 10](#).

## Procedure

Procedure:

1. **To automatically reboot the server, put commands to change to the NetWare directory and execute SERVER.EXE in the server's AUTOEXEC.BAT file.**

For example, if the SERVER.EXE file is in the NWSERVER directory on drive C:, put the following lines in the server's AUTOEXEC.BAT file:

```
CD C:\NWSERVER
SERVER.EXE
```

2. Start a remote console session with the server.

3. Load the EDIT NLM on the server by typing

```
LOAD EDIT <Enter>
```

4. Create an .NCF file and include the following commands in the order given:

```
REMOVE DOS
RESTART SERVER
```

See "[Using NWCONFIG to Create and Edit Startup Batch Files.](#)"

5. Save the file in the SYS:SYSTEM directory.

6. Start a remote console session with the server.

7. Send a message to all users to inform them that the server is going down.

See "[Sending Console Messages to Workstations](#)" if you need help sending a message.

8. At the system prompt on the remote console, enter the name of the .NCF file you created.

This reboots the server. The keyboard is disabled for a few minutes while the file is processed.

When the file has finished processing, a "connection is lost" message appears.

9. Press <Esc> to exit the remote session.

10. Open a new remote console connection with the server.



# Using Java-Based Remote Console (RConsoleJ)

## Connection Requirements

RConsoleJ has two connection requirements:

- ◆ **IP Connection.** You must have an IP connection to the network.
- ◆ **NetWare 5 server access.** You must be logged in to a NetWare 5 server.

## Overview of RConsoleJ Components

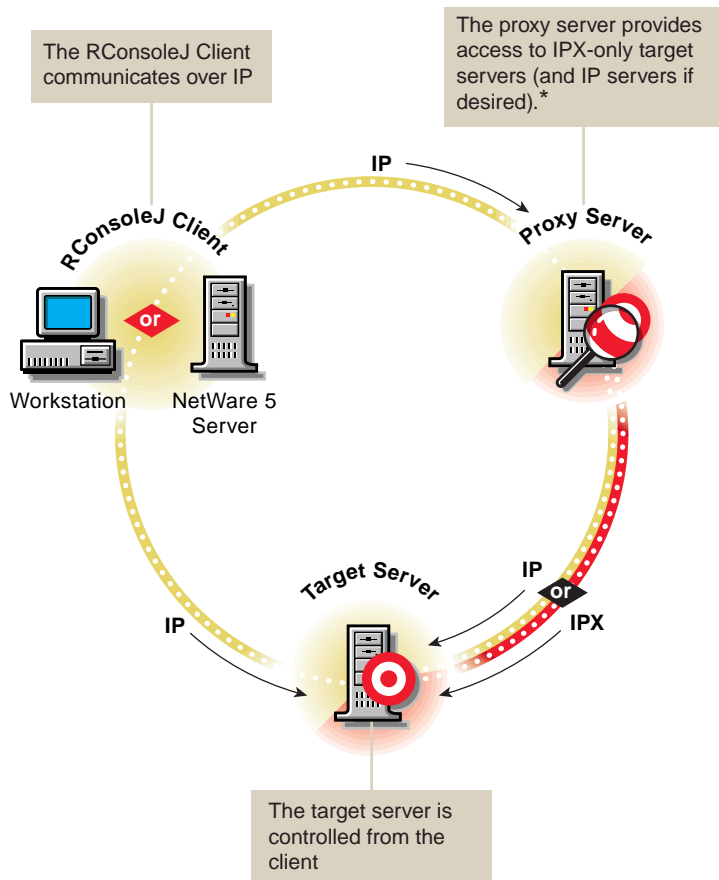
An RConsoleJ session consists of at least two and possibly three components, depending on the connectivity requirement:

- ◆ RconsoleJ running on a Novell Client or NetWare server.
- ◆ Agent software running on the target server.
- ◆ Proxy software running on a proxy server if the target server uses IPX rather than IP to communicate.

Important:

The Proxy server must run both IP and IPX.

Communication between these components is summarized in the following illustration.



## Preparing To Run RConsoleJ

### Important:

For security reasons, the version of RConsoleJ included in the initial release of NetWare 5 must only be used inside firewalls.

Before you can run RConsoleJ, you must prepare the target server to communicate with RConsoleJ. If the target server communicates using IPX, you must also prepare a proxy server to handle the IPX connection. The proxy server must have both IP and IPX loaded.

1. On the target server, load `rconag6.nlm`.
2. On the proxy server, load `rconprxy.nlm`.

Each of these tasks is explained in the following procedures.

## Preparing a target server

### Prerequisites

Checklist:

- Rconag6.nlm
- Spxs.nlm for all servers communicating over IPX.

### Procedure

Procedure:

1. **If the target server communicates using IPX, enter the following command at the server console prompt. Otherwise, skip to the next step.**

```
LOAD SPXS
```

2. **At the server console prompt, enter**

```
LOAD RCONAG6
```

You are prompted to enter a password to use when you establish the RConsoleJ session.

3. **Enter the password you want network administrators to use when accessing the target server using RConsoleJ.**

If you want to use the user ADMIN password, you must enter it at this point.

You are prompted for a TCP port number.

4. **Enter the TCP port number on which RCONAG6 will listen for either RConsoleJ or a proxy server.**

The default value is 2034.

If the server communicates using IPX only, enter “-1” to disable TCP listening.

To enable listening over a dynamically assigned port, enter “0”.

You are prompted for an SPX port number.

5. **Enter the SPX port number on which RCONAG6 will listen for a proxy server.**

The default value is 16800.

If the server communicates using IP only, enter “-1” to disable SPX listening.

To enable listening over a dynamically assigned port, enter “0”.

6. **If the target server communicates using IPX, prepare a proxy server by completing the next procedure.**

After completing all the steps above you can start an RConsoleJ session from a Novell Client workstation or a NetWare 5 server.

## Preparing a proxy server

### Prerequisites

Checklist:

- Rconprxy.nlm
- Spxs.nlm for all servers that communicate using IPX
- Both IP and IPX running on the proxy server

### Procedure

Procedure:

1. **If the target server communicates using IPX, enter the following command at the server console prompt. Otherwise, skip to the next step.**

```
LOAD SPXS
```

2. **At the server console prompt, enter the following command.**

```
LOAD RCONPRXY
```

You are prompted for the TCP port number.

3. **Enter the TCP port number on which RCONPRXY will listen for RConsoleJ.**

The default value is 2035.

To enable listening over a dynamically assigned port, enter "0".

Once the proxy server is running, RConsoleJ can communicate through it with a target server that uses only IPX to communicate.

## Running RConsoleJ from a Novell Client

You can run RConsoleJ from a Novell Client (Windows 95 or NT) using various methods. You need not install any software on the client. All required software is on the NetWare 5 server.

### Prerequisites

Checklist:

- Novell Client software
- An IP connection to the network
- Be logged into a NetWare 5 server

## Procedure

Procedure:

There are two basic methods for starting RConsoleJ on a Novell Client workstation.

1. **Complete one of the following substeps.**
  - 1a. **From within NetWare Administrator, run Tools > Pure IP Remote Console.**
  - 1b. **From a Windows 95 or NT workstation, ensure you have a drive mapped to the root of the SYS: volume on the NetWare 5 server. In the Windows Start / Run dialog box, browse that drive mapping and run \public\rconj.exe.**
2. **Click Remote Servers, select a server from the list, enter the appropriate password and skip to [Step 3](#), or enter the required information for RConsoleJ to locate the target server:**
  - 2a. **If the target server communicates using IP, enter one of the following in the Server Address slot:**
    - ◆ The target server's case-sensitive name entered in DNS
    - ◆ The target server's IP address
  - 2b. **If the target server communicates using IPX, enter either the case-sensitive server name or the IPX address and IPX number separated by a colon, as shown in the following example:**  
*IPX\_Address:000000000001*
  - 2c. **In the Password slot, enter the password provided when RCONAG6 was loaded.**
  - 2d. **If you entered a non-default TCP port number and/or you are using a proxy server, click Advanced>>. Otherwise, skip to [Step 3](#).**
  - 2e. **If you entered a non-default TCP port number, enter the TCP port number given when RCONAG6 was loaded on the target server. If you are not using a proxy server, skip to [Step 3](#).**
  - 2f. **In the Remote Server Port slot, enter the SPX port number given when RCONAG6 was loaded on the target server.**
  - 2g. **Check the Connect through Proxy checkbox.**
  - 2h. **In the Server Address slot, enter the proxy server's case-sensitive name entered in DNS, or the proxy server's IP address.**
  - 2i. **In the Port No slot, enter the proxy server's TCP port number.**
  - 2j. **If the target server communicates using IPX, set the Agent Protocol to SPX.**
3. **Click Connect.**

The remote console session is now open. RConsoleJ displays the same information you would see on the server console screen.

Note:

Graphical screens are not displayed in remote console utilities.

When the utility launches, if a graphical screen is displayed on the server console screen, the System Console screen is displayed in the remote view.

After a remote console session starts, if someone at the server console switches to a graphical screen, the switch is not reflected on the remote screen.

For help using RConsoleJ, click Help.

4. To connect to another server, click **Disconnect** in the RConsoleJ window.
5. To close RConsoleJ, click in the upper left corner of the RConsoleJ window and select **Close**.

## Running RConsoleJ from a NetWare 5 Server

You can run RConsoleJ from a NetWare 5 server using various methods.

### Prerequisites

Checklist:

- An IP connection to the network

### Procedure

Procedure:

There are two basic methods for starting RConsoleJ on a NetWare 5 server.

1. Complete one of the following substeps.
  - 1a. From within ConsoleOne running on the server, select **MyServer > Tools > RConsoleJ**.
  - 1b. From the server console prompt, load **RCNJ.NCF**.
2. Click **Remote Servers**, select a server from the list, enter the appropriate password and skip to **Step 3**, or enter the required information for RConsoleJ to locate the target server:
  - 2a. If the target server communicates using IP, enter one of the following in the **Server Address** slot:
    - ◆ The target server's case-sensitive name entered in DNS
    - ◆ The target server's IP address
  - 2b. If the target server communicates using IPX, enter either the case-sensitive server name or the IPX address and IPX number separated by a colon, as shown in the following example:  
*IPX\_Address:000000000001*
  - 2c. In the **Password** slot, enter the password provided when **RCNAG6** was loaded.
  - 2d. If you entered a non-default TCP port number and/or you are using a proxy server, click **Advanced>>**. Otherwise, skip to **Step 3**.

- 2e. If you entered a non-default TCP port number, enter the TCP port number given when RCONAG6 was loaded on the target server. If you are not using a proxy server, skip to [Step 3](#).
- 2f. In the Remote Server Port slot, enter the SPX port number given when RCONAG6 was loaded on the target server.
- 2g. Check the Connect through Proxy checkbox.
- 2h. In the Server Address slot, enter the proxy server's case-sensitive name entered in DNS, or the proxy server's IP address.
- 2i. In the Port No slot, enter the proxy server's TCP port number.
- 2j. If the target server communicates using IPX, set the Agent Protocol to SPX.

### 3. Click Connect.

The remote console session is now open. RConsoleJ displays the same information you would see on the server console screen.

#### Note:

Graphical screens are not displayed in remote console utilities.

When the utility launches, if a graphical screen is displayed on the server console screen, the System Console screen is displayed in the remote view.

After a remote console session starts, if someone at the server console switches to a graphical screen, the switch is not reflected on the remote screen.

For help using RConsoleJ, click Help.

4. To connect to another server, click **Disconnect** in the RConsoleJ window.
5. To close RConsoleJ, click the upper left corner of the RConsoleJ window and select **Close**.

## Loading RConsoleJ Modules at Startup

You can put commands in the sys:system\autoexec.ncf file to load the required RConsoleJ agent NLM using the sys:system\ldrconag.ncf file each time the server is started.

Since the NLM requires the remote password, you can place an encrypted version of the password in the ldrconag.ncf file, too. The method described in this section secures the server console by hiding the remote console password from users who access the autoexec.ncf file.

The following procedure explains how to set an encrypted password and autoload rconag6.nlm with the encrypted password.

#### Procedure:

1. To encrypt a password for rconag6.nlm, enter the following:

```
[LOAD] RCONAG6 ENCRYPT
```

2. Enter the password you want to use for remote console sessions.

If you want to use the user ADMIN password, you must enter it at this point.

### 3. Enter the other required port information.

The system displays the encrypted value and a message asking if the LOAD RCONAG6 command should be written to the sys:system\ldrconag.ncf file.

### 4. To include the LOAD RCONAG6 command with your encrypted password in the ldrconag.ncf file, respond Yes.

The system places a LOAD RCONAG6 command into the sys:system\ldrconag.ncf file with the encrypted password as a parameter.

You can execute the ldrconag.ncf file with the encrypted password whenever you want to load rconag6.nlm, or you can place the command to execute the file into your autoexec.ncf file by completing all the steps in this procedure. Either option will save you from having to type in the encrypted password, which is often quite long, every time you load rconag6.nlm.

### 5. To autoloading rconag6.nlm with an encrypted password on startup, use either NWCONFIG or EDIT to open the autoexec.ncf file.

For information about editing NCF files, see "[Using EDIT to create and Edit Text and Batch Files.](#)"

### 6. Move the cursor to the end of the file and type the following:

```
LDRCONAG
```

### 7. Save and exit the autoexec.ncf file.

The server will now automatically load the necessary remote modules and your encrypted password whenever it is started.

For more information about utilities related to using RConsoleJ, see Reference > Utilities Reference > Utilities > "[RConsoleJ](#)," "[RCONAG6](#)," or "[RCONPRXY](#)" in Reference > Utilities Reference, accessed from the home page of the online documentation.

## Restarting a Remote Server Using RConsoleJ

You can restart a NetWare server from a remote console by first modifying the server's autoexec.bat file and then executing another .NCF file that you create for this purpose.

### Prerequisites

Checklist:

- Target server prepared for remote console sessions. See "[Preparing To Run RConsoleJ](#)" on page 16.
- Commands in the server AUTOEXEC.NCF file that load the remote modules. See "[Loading RConsoleJ Modules at Startup](#)" on page 21.



## Procedure

### Procedure:

1. To restart the server automatically, put commands to change to the NetWare directory and execute server.exe in the server's autoexec.bat file.

For example, if the server.exe file is in the c:\nwserver directory, put the following lines in the server's autoexec.bat file:

```
CD C:\NWSERVER  
SERVER.EXE
```

2. Start a remote console session with the server.
3. At the server console prompt, enter

```
LOAD EDIT
```

4. Create an .NCF file and include the following commands in the order given:

```
REMOVE DOS  
RESTART SERVER
```

See "[Using NWCONFIG to Create and Edit Startup Batch Files.](#)"

5. Save the file in the sys:system directory.
6. Start a remote console session with the server.
7. Send a message to all users to inform them that the server is going down.

See "[Sending Console Messages to Workstations](#)" if you need help sending a message.

8. At the system prompt on the remote console, enter the name of the NCF file you created.

This restarts the server. The keyboard is disabled for a few minutes while the file is processed.

When the file has finished processing, a message appears indicating the connection has been lost.

9. Close the remote session by clicking the upper left corner of the RConsoleJ window and selecting Close.
10. Open a new remote console connection with the server.