

# Novell NetWare® 6

[www.novell.com](http://www.novell.com)

---

REMOTE SERVER MANAGEMENT  
ADMINISTRATION GUIDE



**Novell®**

## Legal Notices

Novell, Inc. makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc. makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

This product may require export authorization from the U.S. Department of Commerce prior to exporting from the U.S. or Canada.

Copyright © 1993-2001 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

U.S. Patent No. 5,157,663; 5,349,642; 5,455,932; 5,553,139; 5,553,143; 5,572,528; 5,594,863; 5,608,903; 5,633,931; 5,652,859; 5,671,414; 5,677,851; 5,692,129; 5,701,459; 5,717,912; 5,758,069; 5,758,344; 5,781,724; 5,781,724; 5,781,733; 5,784,560; 5,787,439; 5,818,936; 5,828,882; 5,832,274; 5,832,275; 5,832,483; 5,832,487; 5,850,565; 5,859,978; 5,870,561; 5,870,739; 5,873,079; 5,878,415; 5,878,434; 5,884,304; 5,893,116; 5,893,118; 5,903,650; 5,903,720; 5,905,860; 5,910,803; 5,913,025; 5,913,209; 5,915,253; 5,925,108; 5,933,503; 5,933,826; 5,946,002; 5,946,467; 5,950,198; 5,956,718; 5,956,745; 5,964,872; 5,974,474; 5,983,223; 5,983,234; 5,987,471; 5,991,771; 5,991,810; 6,002,398; 6,014,667; 6,015,132; 6,016,499; 6,029,247; 6,047,289; 6,052,724; 6,061,743; 6,065,017; 6,094,672; 6,098,090; 6,105,062; 6,105,132; 6,115,039; 6,119,122; 6,144,959; 6,151,688; 6,157,925; 6,167,393; 6,173,289; 6,192,365; 6,216,123; 6,219,652; 6,229,809. Patents Pending.

Novell, Inc.  
1800 South Novell Place  
Provo, UT 84606  
U.S.A.

[www.novell.com](http://www.novell.com)

Remote Server Management Administration Guide  
October 2001  
103-000146-001

**Online Documentation:** To access the online documentation for this and other Novell products, and to get updates, see [www.novell.com/documentation](http://www.novell.com/documentation).

## **Novell Trademarks**

ConsoleOne is a trademark of Novell, Inc.

Internetwork Packet Exchange and IPX are trademarks of Novell, Inc.

Novell is a registered trademark of Novell, Inc. in the United States and other countries.

NetWare is a registered trademark of Novell, Inc. in the United States and other countries.

NetWare Loadable Module and NLM are trademarks of Novell, Inc.

Sequenced Packet Exchange and SPX are trademarks of Novell, Inc.

## **Third-Party Trademarks**

All third-party trademarks are the property of their respective owners.



# Contents

<b>Preface</b>	<b>7</b>
Documentation Conventions . . . . .	7
<b>1 Remote Server Management</b>	<b>9</b>
What's New in NetWare 6 RConsoleJ . . . . .	10
Overview of RConsoleJ Components . . . . .	10
RConsoleJ Client . . . . .	10
RConsoleJ Agent . . . . .	10
RConsoleJ Proxy Agent . . . . .	11
Setting Up RConsoleJ . . . . .	11
Loading the RConsoleJ Agent . . . . .	11
Running the RConsoleJ Client . . . . .	12
Loading the RConsoleJ Proxy Agent on a Proxy Server . . . . .	12
Loading Agents at Startup . . . . .	13
Loading RConsoleJ Agent at Startup . . . . .	13
Loading RConsoleJ Proxy Agent at Startup . . . . .	13
Deploying RConsoleJ . . . . .	14
Scenario 1: An IP Client Consoling an IP or IP/IPX NetWare Server . . . . .	14
Scenario 2: An IP Client Consoling an IPX NetWare Server . . . . .	17
Managing Remote NetWare Servers. . . . .	19
Sending Console Commands in the Server's Native Language . . . . .	19
Synchronizing RConsoleJ Client and Target NetWare Screens . . . . .	20



# Preface

This *Remote Server Management Administration Guide* includes information about understanding, setting up, and managing the Remote Console utility (RConsoleJ).

RConsoleJ lets you use a network workstation to control and manage a remote NetWare<sup>®</sup> server. You can lock servers in a safe place, remove keyboards and monitors, and then start a remote control session from a workstation whenever you need to access a server's console.

NetWare 6 RConsoleJ has new sleek and user-friendly interface.

## Documentation Conventions

In this documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

Also, a trademark symbol (<sup>®</sup>, <sup>™</sup>, etc.) denotes a Novell trademark. An asterisk (\*) denotes a third-party trademark.





# 1

## Remote Server Management

NetWare® 6 provides Java\*-based remote console utility (RConsoleJ) that lets you control a NetWare server from a workstation and perform the following tasks:

- ◆ Use console commands as you would at the server console
- ◆ Use NLM™ programs as you would at the server console (for example, EDIT.NLM to edit files)
- ◆ Send console commands in the server's native language from the RConsoleJ Client using Buffer Input.
- ◆ Control the server from another server using RConsoleJ
- ◆ Upgrade a NetWare server (text-based UI only)
- ◆ Secure Socket Layer (SSL) based secure session

This chapter contains the following topics:

- ◆ [What's New in NetWare 6 RConsoleJ \(page 10\)](#)
- ◆ [Overview of RConsoleJ Components \(page 10\)](#)
- ◆ [Setting Up RConsoleJ \(page 11\)](#)
- ◆ [Loading Agents at Startup \(page 13\)](#)
- ◆ [Deploying RConsoleJ \(page 14\)](#)
- ◆ [Managing Remote NetWare Servers \(page 19\)](#)

# What's New in NetWare 6 RConsoleJ

- ◆ Send lengthy console commands to the server using the new Buffer Input utility. You can also send commands in the server's native language using Buffer Input.

See “[Sending Console Commands in the Server's Native Language](#)” on page 19.

- ◆ Supports SSL-based secure session using the Secure IP connection option.

See “[Setting Up a Secured IP Connection](#)” on page 14.

For more information on SSL, see the [SSL documentation \(http://home.netscape.com/eng/ss13/draft302.txt\)](http://home.netscape.com/eng/ss13/draft302.txt).

- ◆ Supports Unsecure IP connection for backward compatibility with NetWare 5 and NetWare 6.

See “[Setting Up an Unsecure IP Connection](#)” on page 16.

## Overview of RConsoleJ Components

Before setting up RConsoleJ, you should understand the RConsoleJ components. The following RConsoleJ components interact with each other to help you remotely control a NetWare server:

### RConsoleJ Client

The RConsoleJ Client is a Java-based utility running on a Java-enabled workstation or NetWare server. From the RConsoleJ Client you can remotely control and monitor all NetWare console operations.

### RConsoleJ Agent

The RConsoleJ Agent (RCONAG6.NLM) is a utility running on the target NetWare server. The target NetWare server can be connected over IP, IPX™, or IP/IPX running the RConsoleJ Agent. The RConsoleJ Agent services all RConsoleJ Client requests.

The RConsoleJ Agent advertises its services using Service Location Protocol (SLP).

## RConsoleJ Proxy Agent

The RConsoleJ Proxy Agent (RCONPRXY.NLM) is a utility running on a NetWare server. It routes all IP packets to IPX and vice versa.

The RConsoleJ Proxy Agent advertises its services using Service Location Protocol (SLP).

**IMPORTANT:** If the target NetWare server uses only IPX, the NetWare server (loaded with the RConsoleJ Proxy Agent) must have both IP and IPX stacks installed.

## Setting Up RConsoleJ

### Loading the RConsoleJ Agent

- 1 At the server console prompt, enter

```
RCONAG6
```

- 2 Enter the password you want network administrators to use when accessing the target NetWare server using RConsoleJ.

- 3 Enter the TCP port number for the unsecure session.

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**.

- 4 Enter the TCP port number for the secure session.

The default is 2036.

Ensure the Key Material Object named SSL CertificateDNS has been created.

**NOTE:** The Secure connection is available only on IP and not on IPX.

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

The default 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**.

**NOTE:** /DEV/TCP and /DEV/TCPSSL will fail if you are using a pure IPX server.

# Running the RConsoleJ Client

## On a Workstation

You can run the RConsoleJ Client on a workstation using either of the following methods:

- ◆ From a Windows\* 95/ 98 or Windows NT\* workstation, ensure you have a drive mapped to the root of volume SYS: on the NetWare 6 server. From the Windows desktop menu, click Start > Run, browse to \\PUBLIC\MGMT\CONSOLEONE\1.2, and run RCONJ.EXE.
- ◆ In ConsoleOne™, right-click the NetWare server object that you want to remotely control and click Remote Console, or click the NetWare server object and then from the Tools option click Remote Console.

## On a NetWare Server

You can run the RConsoleJ Client on a NetWare server using any of the following methods:

- ◆ In ConsoleOne, right-click the NetWare server object that you want to remotely control and click Remote Console, or click the NetWare server object and then from the Tools option click Remote Console.
- ◆ From the server console prompt, enter **RCONJ . NCF**.
- ◆ From the server GUI, click Novell > Programs > RConsoleJ.

## Loading the RConsoleJ Proxy Agent on a Proxy Server

The NetWare server loaded with RConsoleJ Proxy Agent should have an IP/IPX stack loaded.

- 1** At the server console prompt, enter the following command:

```
RCONPRXY
```

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

The default is 2035.

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

Once the NetWare server is running the RConsoleJ Proxy Agent, the RConsoleJ Client can communicate through it with the target NetWare server that uses only IPX to communicate.

# Loading Agents at Startup

## Loading RConsoleJ Agent at Startup

You can load RConsoleJ Agent (RCONAG6.NLM) at startup using either of the following methods.

### Using Encrypted Password (Recommended)

- 1** Prepare the LDRCONAG.NCF script file.
  - 1a** At the console prompt, enter **rconag6 ENCRYPT**.
  - 1b** In the RConsoleJ Agent server screen, enter the password and port numbers.
  - 1c** Enter **Y**.
- 2** Prepare the AUTOEXEC.NCF file to run the LDRCONAG.NCF script file at startup.
  - 2a** Comment out the following line:

```
load rconag6 Your Password Here 2034 2036 16800
```
  - 2b** Enter the following line:

```
ldrconag
```

### Using Plain Text Password

Enter the following line in AUTOEXEC.NCF:

```
load rconag6 your_password 2034 2036 16800
```

## Loading RConsoleJ Proxy Agent at Startup

To load the RConsoleJ Proxy Agent (RCONPRXY.NLM) at the startup, enter the following line in AUTOEXEC.NCF:

```
load rconprxy 2035
```

# Deploying RConsoleJ

This section will help you deploy RConsoleJ in the following scenarios:

- ♦ [Scenario 1: An IP Client Consoling an IP or IP/IPX NetWare Server \(page 14\)](#)
- ♦ [Scenario 2: An IP Client Consoling an IPX NetWare Server \(page 17\)](#)

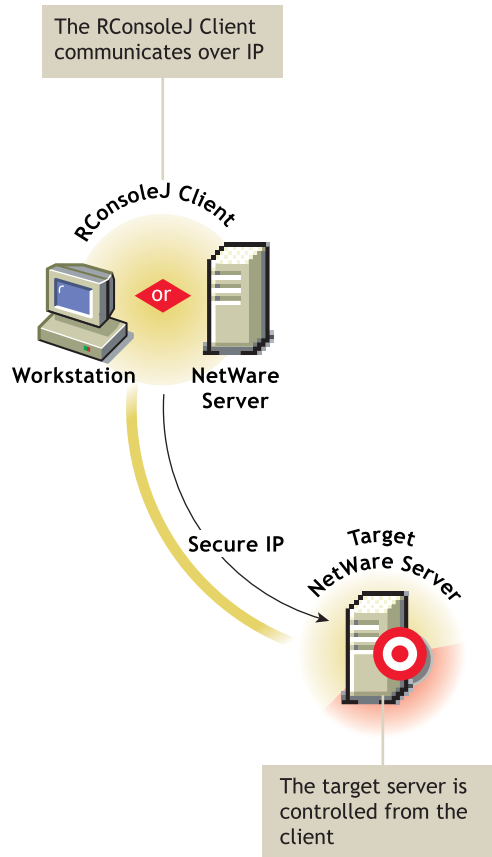
## Scenario 1: An IP Client Consoling an IP or IP/IPX NetWare Server

### Prerequisites

- ❑ [Loading the RConsoleJ Agent \(page 11\)](#)
- ❑ [Running the RConsoleJ Client \(page 12\)](#)

### Setting Up a Secured IP Connection

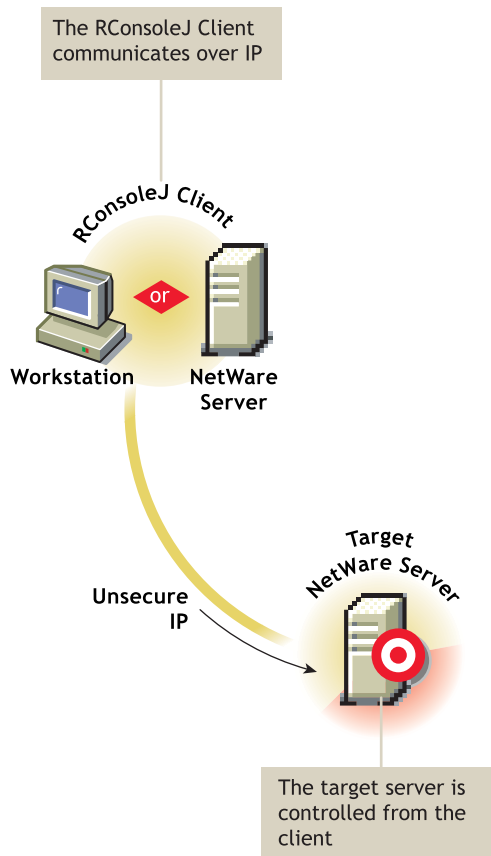
The RConsoleJ Client communicates directly with the RConsoleJ Agent using TCP/IP.



- 1** In the RConsoleJ Connection dialog box, select Secure IP.
- 2** Enter the IP address of the target NetWare server, or click the Remote Servers icon and then select the target NetWare server from the list.
- 3** Enter the password provided during loading of the RConsoleJ Agent on the target server.
- 4** Enter the port number.  
The default is 2036.
- 5** Click Connect.
- 6** To ensure server authentication, read the Untrusted Certificate Verification server certificate issued by the target server and click OK to accept.

## Setting Up an Unsecure IP Connection

The RConsoleJ Client communicates directly with the RConsoleJ Agent using TCP/IP. Use the Unsecure IP connection for backward compatibility with NetWare 5.x server RConsoleJ Agents.



- 1** In the RConsoleJ Connection dialog box, select Unsecure.
- 2** Select Connect Directly as the unsecure connection option.
- 3** Enter the IP address of the target NetWare server, or click the Remote Servers icon and then select the target NetWare server from the list.
- 4** Enter the password provided during loading the RConsoleJ Agent.
- 5** Enter the port number.  
The default is 2034.
- 6** Click Connect.



## Scenario 2: An IP Client Consoling an IPX NetWare Server

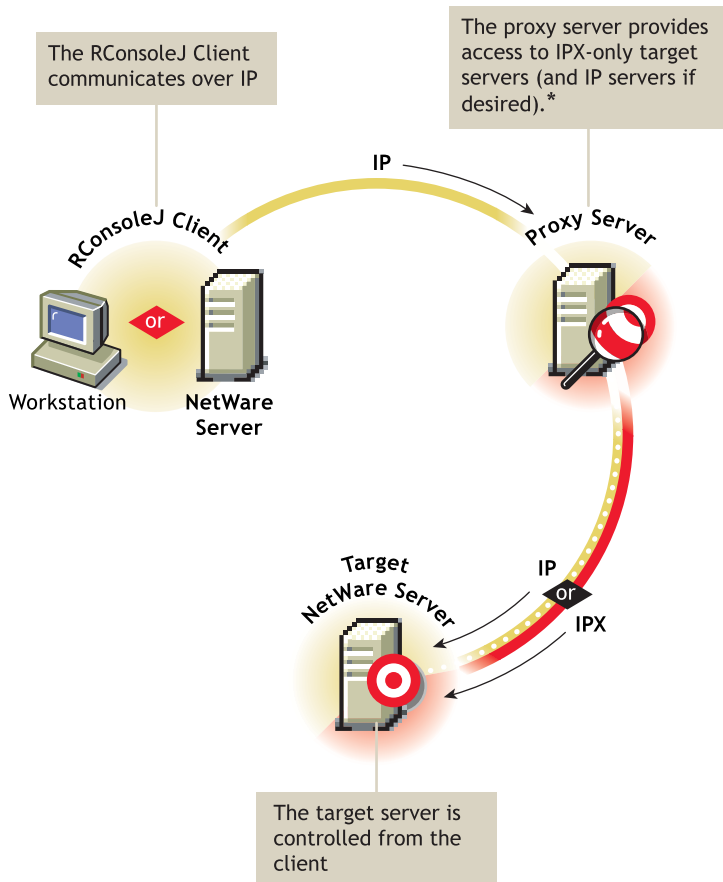
### Prerequisites

- ❑ [Loading the RConsoleJ Agent \(page 11\)](#)
- ❑ [Running the RConsoleJ Client \(page 12\)](#)
- ❑ [Loading the RConsoleJ Proxy Agent on a Proxy Server \(page 12\)](#)

### Setting Up an Unsecure IPX Connection

The RConsoleJ Client communicates with the RConsoleJ Agent through RConsoleJ Proxy Agent because the target NetWare server is based purely on IPX.

The RConsoleJ Proxy Agent is loaded on a NetWare server (proxy server) that has both IP and IPX stacks loaded. The RConsoleJ Proxy Agent receives all the IP requests from the RConsoleJ Client, converts them to IPX requests, and then sends them to the RConsoleJ Agent and vice-versa.



\*If the target server uses IPX, the proxy server must have both IP and IPX stacks loaded.

- 1** In the RConsoleJ Connection dialog box, select Unsecure.
- 2** Select Connect Via Proxy as the unsecure connection option.
- 3** Enter the IP/IPX address of the target NetWare server, or click the Remote Servers icon and then select the target NetWare server from the list.

Following is a sample IPX number:

**IPX\_Address:000000000001**

- 4** Enter the port number specified during loading the RConsoleJ Agent on the target server or choose appropriate protocol to use the default port number.

The default is 2034 for Unsecure IP.

- 5** Enter the IP address of the proxy server, or click the Remote Servers icon and then select a proxy server from the list.
- 6** Click an agent protocol depending on the protocol of the target server.
- 7** Enter the port number specified during loading the RConsoleJ Proxy Agent.  
  
The RConsoleJ Client communicates with the RConsoleJ Proxy Agent on this port.  
  
The default is 2035.
- 8** Enter the password provided during loading the RConsoleJ Agent on the target NetWare server.
- 9** Click Connect.

## Managing Remote NetWare Servers

After RConsoleJ establishes connection with the NetWare server, you can view and manage the target NetWare server from your desktop.

The following sections explain the tasks you can perform to effectively manage a remote NetWare Server.

### Sending Console Commands in the Server's Native Language

You can send console commands in the server's native language from the RConsoleJ Client using Buffer Input as shown in the following graphic. The buffer stores a list of ten history commands.

