

Remote Management

VII

The Remote Management component of Novell® ZENworks® 7 Linux Management gives you the ability to remotely manage devices from the management console. Remote Management allows you to:

- ♦ Remotely control the managed device
- ♦ Remotely view the managed device
- ♦ Remotely login to the managed device
- ♦ View log information about any Remote Management sessions performed on any managed device from anywhere in your network

Remote Management can save you and your organization time and money. For example, you or your organization's help desk can analyze and remotely fix problems on the devices without visiting the user's device, which reduces problem resolution time and increases productivity.

The following sections will help you understand and use Remote Management:

- ♦ [Chapter 28, “Remote Management Overview,” on page 353](#)
- ♦ [Chapter 29, “Setting Up Remote Management,” on page 355](#)

You can use Novell® ZENworks® 7 Linux Management to remotely manage all the supported platforms. To see details on supported platforms, see “[Managed Device Requirements](#)” under “[System Requirements](#)” in the *Novell ZENworks 7 Linux Management Installation Guide*.

The following sections provide information to help you understand the functionality of Remote Management components:

- ♦ [Section 28.1, “Remote Management Terminology,” on page 353](#)
- ♦ [Section 28.2, “Understanding the Remote Management Components,” on page 353](#)

28.1 Remote Management Terminology

Managed device: A device that you want to remotely manage. To remotely manage a managed device, you must install the ZENworks 7 Linux Management Agent on it.

Management server: A server where ZENworks 7 server is installed.

Management console: A Windows or Linux device that provides console to manage ZENworks. The management console provides the interface to manage and administer your workstations.

Administrator: A person who can perform various Remote Management operations.

Remote Control Service: A component that is installed on a managed device, enabling the administrator to remotely control and remote view the managed device. The Remote Control Service starts automatically when the managed device boots up. It verifies whether the administrator is allowed to perform Remote Control operations on the managed device before the Remote Management session proceeds with authentication.

Remote Login Service: A component that is installed on a managed device, enabling the administrator to remotely login into the managed device. The Remote Login Service starts automatically when the managed device boots up. It verifies whether the administrator is allowed to perform Remote Login on the managed device before the Remote Management session proceeds with authentication.

Remote Management Viewer: A window displaying the desktop session of the managed device.

28.2 Understanding the Remote Management Components

The following sections provide information to help you understand the functionality of Remote Management components. You must install the Remote Management Agent on the managed devices to perform the Remote Management operations.

- ♦ [Section 28.2.1, “Understanding Remote Control,” on page 354](#)
- ♦ [Section 28.2.2, “Understanding Remote View,” on page 354](#)
- ♦ [Section 28.2.3, “Understanding Remote Login,” on page 354](#)

28.2.1 Understanding Remote Control

Remote Control lets you control a managed device desktop from the management console so you can provide user assistance and help resolve problems on the devices.

Remote Control establishes a connection between the management console and the managed device. With remote control connections, the administrator can go beyond viewing a managed device to taking control of it.

28.2.2 Understanding Remote View

Remote View lets you view the managed device instead of controlling it. This helps you troubleshoot problems that the user encountered by observing how the user at a managed device performs certain tasks.

28.2.3 Understanding Remote Login

Remote Login lets you login into a managed device from the management console. This helps you to start a new graphical session without disturbing the user on the managed device. The user on the managed device would not be able to view a Remote Login session.

Setting Up Remote Management

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The following sections provide information on deploying the Remote Management component of Novell® ZENworks® 7 Linux Management in a production environment:

- ♦ [Section 29.1, “Configuring the Remote Management Settings,” on page 355](#)
- ♦ [Section 29.2, “Configuring Remote Management Agent,” on page 358](#)
- ♦ [Section 29.3, “Starting Remote Management Operations Using the ZENworks Control Center,” on page 359](#)
- ♦ [Section 29.4, “Starting Remote Management Operations Using the Native VNCViewer,” on page 362](#)
- ♦ [Section 29.5, “Establishing SSH Tunneling,” on page 363](#)
- ♦ [Section 29.6, “Improving Remote Management Performance,” on page 364](#)

29.1 Configuring the Remote Management Settings

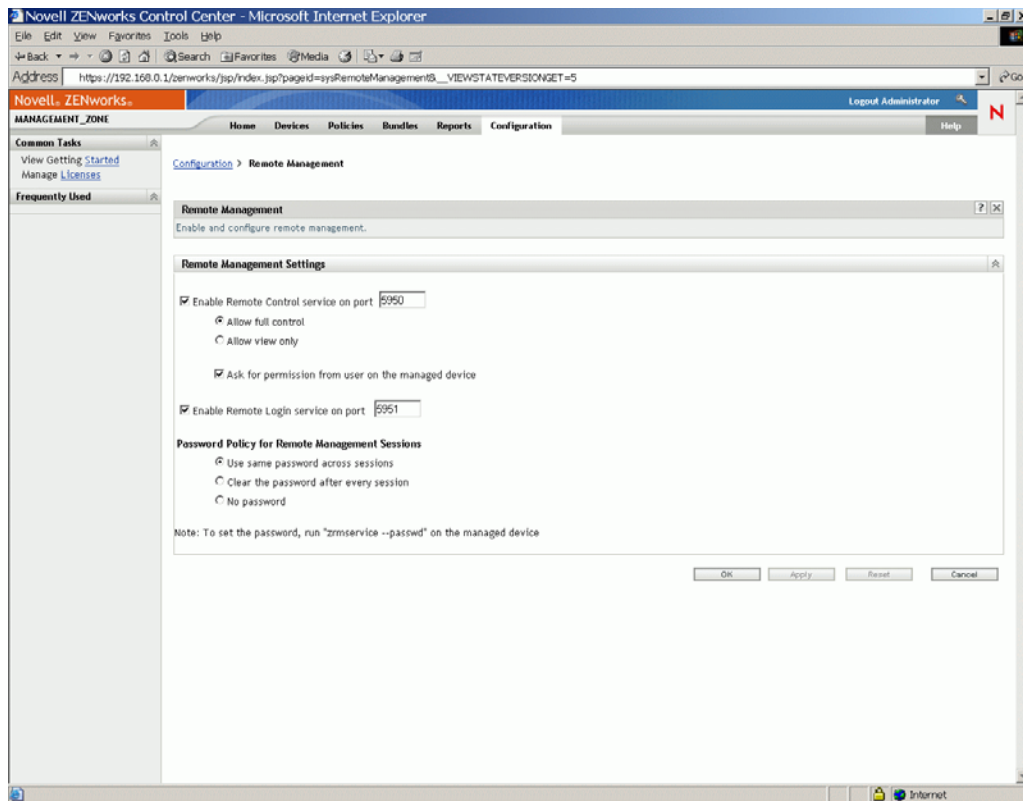
Remote Management Settings allows you to configure the Remote Management settings for the management zone. This includes enable and disable options for remote management operations as well as configurations for custom ports. The Remote Management Settings can be applied at Zone, Folder, and Device levels.

- ♦ [Section 29.1.1, “Configuring Remote Management Settings at the Zone Level,” on page 355](#)
- ♦ [Section 29.1.2, “Configuring Remote Management Settings at the Folder Level,” on page 357](#)
- ♦ [Section 29.1.3, “Configuring Remote Management Settings at the Device Level,” on page 357](#)

29.1.1 Configuring Remote Management Settings at the Zone Level

- 1 In the ZENworks Control Center, click *Configuration*.

2 In the Management Zone Settings section, click *Remote Management*.



3 To enable the Remote Control Service on a particular port, select the *Enable remote control service on port* option.

By default, the Remote Control Service listens on port number 5950.

4 Select *Allow full control* or *Allow view only*.

Select *Allow full control* to enable the user to perform both remote control and remote view operation to a managed device. Select *Allow view only* to enable the user to perform only remote view operations to a managed device. Selecting *Allow view only* disallows the user to perform remote control operation.

5 Select the *Ask for permission from user on the managed device* option to request the permission of a user on the managed device before starting a Remote Control or Remote View session.

6 To enable Remote Login Service on a particular port, select the *Enable remote login service on port* option.

By default, the Remote Login Service listens on port 5951.

7 In the Password Policy for Remote Management Sessions section, select the desired option.

Select *Use same password across sessions* to use the same password across all sessions. By default, this option is selected. Select *Clear the password after every session* to set the password for every session. If you select this option, the password is cleared after every successful or unsuccessful attempt for a Remote Management operation. If you want to launch a Remote Control, Remote Login, or Remote View operation without asking for a password, select *No password*.

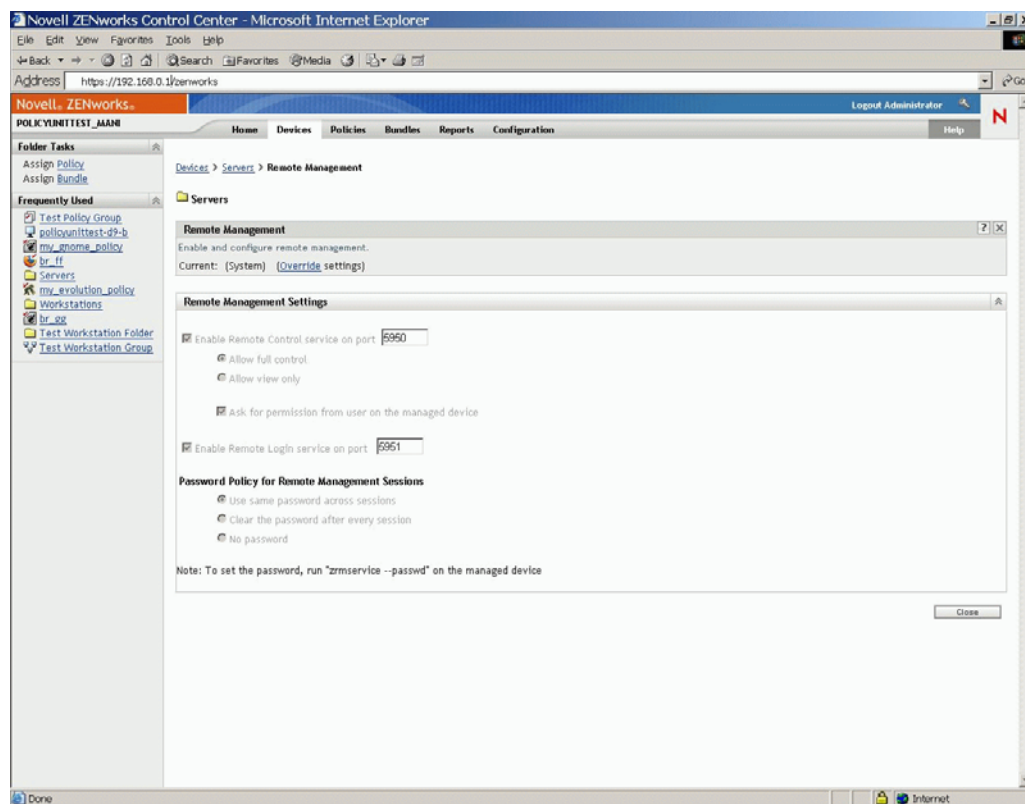
NOTE: We recommend you to use the *No password* option judiciously as it allows access to the managed device without any password.

- 8 Click *Apply*.

These changes will be effective on the managed devices on their next Settings Refresh Schedule.

29.1.2 Configuring Remote Management Settings at the Folder Level

- 1 In the ZENworks Control Center, click *Devices*.
- 2 Click the folder you wish to configure.
- 3 Click *Settings*, then click *Remote Management*.



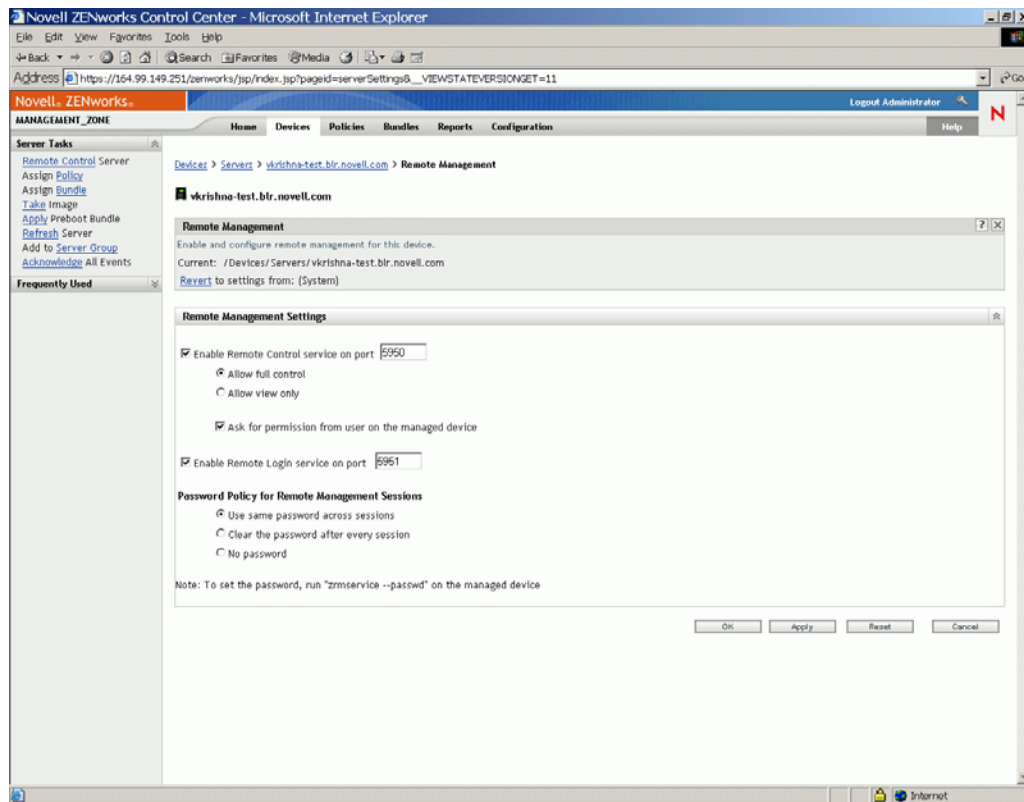
- 4 Click *Override*.
- 5 Edit the Remote Management Settings as required.
- 6 Click *Apply*.

These changes will be effective on the managed devices on their next Settings Refresh Schedule.

29.1.3 Configuring Remote Management Settings at the Device Level

- 1 In the ZENworks Control Center, click *Devices*.

- 2 Click *Servers* or *Workstations* to display the list of managed devices.
- 3 Click the name of a device for which you want to configure Remote Management.
- 4 Click *Settings*, then click *Remote Management*.



- 5 Click *Override*.
- 6 Edit the Remote Management Settings as per your requirements.
- 7 Click *Apply*.

These changes will be effective on the managed device on its next Settings Refresh Schedule.

29.2 Configuring Remote Management Agent

The Remote Management Agent allows you to remotely manage the device and configure the following:

- ◆ Section 29.2.1, “Setting Up the Remote Management Agent Password on the Managed Device,” on page 359
- ◆ Section 29.2.2, “Clearing the Remote Management Agent Password,” on page 359
- ◆ Section 29.2.3, “Clearing Remote Management Agent Log Files,” on page 359

29.2.1 Setting Up the Remote Management Agent Password on the Managed Device

The user on the managed device must set a Remote Management Agent password and communicate the password to the administrator.

To set the Agent password on the managed device, enter the following command at the shell prompt:

```
# /opt/novell/zenworks/sbin/zrmservice --passwd
```

The password is case-sensitive and should be between three to eight characters in length.

NOTE: This step is not necessary if the Password Policy is configured to *No password*.

29.2.2 Clearing the Remote Management Agent Password

To clear the Agent password on the managed device, enter the following command at the shell prompt:

```
# /opt/novell/zenworks/sbin/zrmservice --clrpasswd
```

29.2.3 Clearing Remote Management Agent Log Files

To clear the Agent log files on the managed device, enter the following command at the shell prompt:

```
# /opt/novell/zenworks/sbin/zrmservice --clearlog
```

29.3 Starting Remote Management Operations Using the ZENworks Control Center

The ZENworks Control Center is the comprehensive web-based control interface for ZENworks 7 Linux Management. It provides an intuitive and task-driven console to manage various ZENworks components including Remote Management.

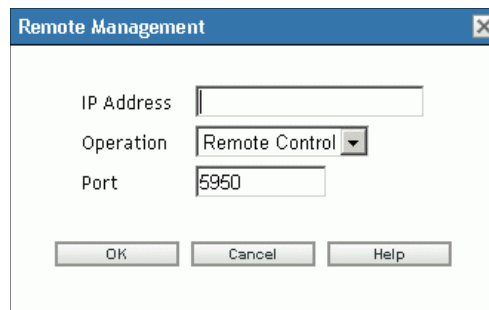
You can initiate various Remote Management operations from the following locations:

- ♦ [Section 29.3.1, “Initiating a Remote Management Session from Common Tasks,” on page 359](#)
- ♦ [Section 29.3.2, “Initiating a Remote Management Session from the Device Context,” on page 360](#)

29.3.1 Initiating a Remote Management Session from Common Tasks

- 1 In the ZENworks Control Center, click *Devices*.

- 2 In Device Tasks in the left pane, click *Remote Control Device* to open the following dialog box:

A screenshot of a 'Remote Management' dialog box. It has a title bar with 'Remote Management' and a close button. Inside, there are three fields: 'IP Address' with an empty text box, 'Operation' with a dropdown menu showing 'Remote Control', and 'Port' with a text box containing '5950'. At the bottom are three buttons: 'OK', 'Cancel', and 'Help'.

- 3 In the *IP address* field, specify the IP address or DNS name of the device you want to remotely control.
- 4 Select the Remote Management operation to be performed on the device. The available options are *Remote control*, *Remote view*, and *Remote login*.

The following table lists and explains all the operations you can select from the drop-down list:

Option	Description
Remote control	Allows you to take control of the managed device.
Remote view	Allows you to view the managed device.
Remote login	Allows you to remotely log in to a new desktop session on the managed device. This desktop cannot be viewed by the users on the managed device.

- 5 Specify the port number configured for the selected operation.
The auto-populated port numbers are those which are configured in the Remote Management Settings at Zone Level.
- 6 Click *OK*.
- 7 Read the Java Security message and click *Yes* to accept the Certificate of the Signed Applet. To avoid the message to be displayed again, select *Always*.
- 8 If the *Ask for permission from user on the managed device* setting is enabled, click *Yes* in the permission change dialog-box on the managed device.
- 9 Specify the password at the management console, then click *OK*.

IMPORTANT: We recommend you to use Java plug-in 1.4.x in the browser of the Management Console.

29.3.2 Initiating a Remote Management Session from the Device Context

You can perform Remote Management operations on a specific device.

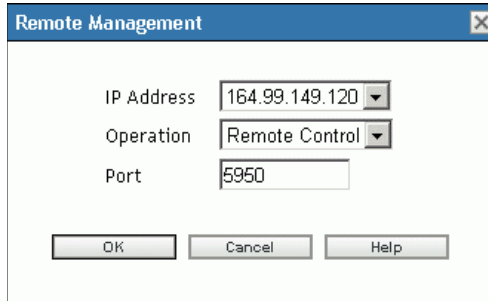
- 1 In the ZENworks Control Center home page, click *Devices*.
- 2 Click *Servers* or *Workstations*.

- 3 Select the device you want to remotely control.

or

Click the device name, then click *Remote Control* in Server Tasks (if you have selected Server) or *Workstation Tasks* (if you have selected Workstation) in left pane.

- 4 If you have selected the device in step 3, click *Remote control* in the *Action* menu to open the Remote Management dialog box:

A screenshot of the 'Remote Management' dialog box. It has a title bar with the text 'Remote Management' and a close button. Inside, there are three fields: 'IP Address' with a dropdown menu showing '164.99.149.120', 'Operation' with a dropdown menu showing 'Remote Control', and 'Port' with a text box containing '5950'. At the bottom, there are three buttons: 'OK', 'Cancel', and 'Help'.

- 5 Select the IP address of the device.
- 6 Select the Remote Management operation to be performed on the device.

The drop-down list of operations is based on the effective Remote Management Settings for the managed device. The available options are *Remote control*, *Remote view*, and *Remote login*.

The following table lists and explains all the operations you can select from the drop-down list:

Option	Description
Remote Control	Allows you to take control of the managed device.
Remote View	Allows you to view the managed device.
Remote Login	Allows you to remotely login to a new desktop session on the managed device. This desktop cannot be viewed by the users on the managed device.

- 7 Specify the port number configure for the selected operation.

The auto-populated port numbers are those which are configured in the effective Remote Management Settings for the selected device.

- 8 Click *OK*.
- 9 Read the Java Security message and click *Yes* to accept the Certificate of the Signed Applet. To avoid the message to be displayed again, select *Always*.
- 10 If the *Ask for permission from user on the managed device* setting is enabled, click *Yes* on the permission change dialog-box on the managed device.
- 11 Specify the password at the management console, then click *OK*.

29.4 Starting Remote Management Operations Using the Native VNCViewer

The following sections contain additional information:

- Section 29.4.1, “Starting Remote Management Operations Using the Windows VNC Viewer,” on page 362
- Section 29.4.2, “Starting Remote Management Operations Using the Linux VNC Viewer,” on page 363

29.4.1 Starting Remote Management Operations Using the Windows VNC Viewer

- 1 Download the latest stable version of the native VNC Viewer from the [TightVNC web site](http://www.tightvnc.com/download.html) (<http://www.tightvnc.com/download.html>).
- 2 Install Tight VNC from the executable you have downloaded.
- 3 Launch the Tight VNC Viewer from *Start > Programs > Tight VNC > Tight VNC Viewer*.

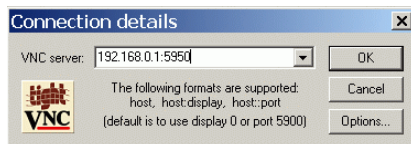
IMPORTANT: We recommend using Tight VNC Viewer (Fast Compression) over fast links and Tight VNC Viewer (Best Compression) over slow links.

- 4 In *Connection details*, specify the IP address with a port number as configured, then click *OK*.

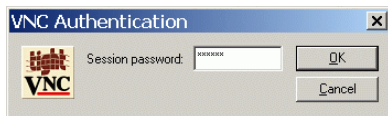
You can specify the port number after the IP address with a doublecolon (::) preceding it. For example, if the IP address of the managed device is 192.168.0.1, and the Remote Control Service port number is 5950, specify as 192.168.0.1::5950.

You can specify the display number after the IP address with a singlecolon (:) preceding it. For example, if the IP address of the managed device is 192.168.0.1, and the Remote Control Service port number is 5950, specify the IP address as 192.168.0.1:50.

You can also specify a DNS name instead of an IP address.



- 5 In *VNC authentication*, specify the correct password, then click *OK*.



Now, you will have an access to the desktop of the managed device you have specified.

29.4.2 Starting Remote Management Operations Using the Linux VNC Viewer

- 1 Download the latest stable version of native VNC Viewer from the TightVNC Web site at [TightVNC web site \(http://www.tightvnc.com/download.html\)](http://www.tightvnc.com/download.html).
- 2 Install Tight VNC from the RPM Package you have downloaded.
- 3 Launch Tight VNC Viewer by specifying the following command at the Shell prompt:

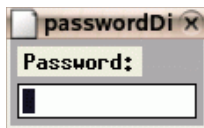
```
$ vncviewer
```
- 4 In serverDialog, specify the IP address with a port number as configured, then click *OK*.



You can specify the port number after the IP address with a doublecolon (::) preceding it. For example, if the IP address of the managed device is 192.168.0.1, and the Remote Control Service port number is 5950, specify the IP address as 192.168.0.1::5950.

You can specify the display number after the IP address with a singlecolon (:) preceding it. For example, if the IP address of the managed device is 192.168.0.1, and the Remote Control Service port number is 5950, specify as 192.168.0.1:50.

- 5 In passwordDialog, specify the correct session password, then click *OK*.



Now, you will have an access to the desktop of the IP address you have specified.

29.5 Establishing SSH Tunneling

The VNC protocol and data are unencrypted between the management console and the managed device. If you perform Remote Management operations over an insecure network like Internet, you should tunnel the VNC protocol using SSH for secure communication.

- 1 Establish SSH tunneling to use VNC between management console and managed device.

For more information on establishing VNC through an SSH tunnel between the console and managed device, see [Section F.1, “SSH Tunneling between a Linux Management Console and a Linux Managed Device,” on page 457](#).
- 2 Launch the Remote Control session from Device Tasks at the top left of the ZENworks Control Center on the Devices page.
- 3 Specify the IP address and port of the configured SSH tunnel.
- 4 Select the desired operation from drop-down list.
- 5 Click *OK*.

29.6 Improving Remote Management Performance

The performance during a Remote Management session over a slow link or a fast link varies depending on the network traffic. For better response time, try one or more of the following strategies:

On the Management Console

On the Remote Management viewer window at the console, click *Options* and set the following values:

- ♦ Set the Encoding value to Tight
- ♦ Adjust the Compression level and JPEG image quality depending on the quality of the image required.
- ♦ Set Cursor Shape Updates to No.
- ♦ Set the CopyRect option to Yes.
- ♦ Use 8 bit color mode by setting Restricted Colors to Yes.

On the Managed Device

- ♦ The speed of the Remote Management session depends upon the processing power of the managed device. We recommend that you use Pentium* III, 500MHz (or later) with 64 MB RAM or higher.
- ♦ Disable the wallpaper.
- ♦ Configure the following settings at the managed device:
 - ♦ Reduce the screen resolution.
 - ♦ Reduce the depth of color pixels.

More Performance Tuning Tips

For additional information on performance tuning tips, refer to the following Web sites for specific components:

- ♦ www.tightvnc.com (<http://www.tightvnc.com>)
- ♦ www.realvnc.com (<http://www.realvnc.com>)
- ♦ FAQs on x11VNC (<http://www.karlrunde.com/x11vnc>)