Novell ZENworks® Linux Management - Dell Edition

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TROUBLESHOOTING GUIDE

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About This Guide

This guide includes troubleshooting strategies that you can use and error messages that might be displayed for problems that could occur as you use Novell® ZENworks® Linux Management - Dell* Edition in your production environment.

As administrators gain experience using Linux Management, some unusual or previously untested implementation scenarios and undocumented product limitations might surface. We will gather this feedback from Novell customers and add it to this guide as it becomes practical to do so.

The guide is intended for network administrators and is divided into the following sections:

- Part I, “Policy Handlers,” on page 9
- Part II, “Event Monitoring,” on page 25
- Part III, “Inventory Roll-Up,” on page 29
- Part IV, “Disaster Recovery,” on page 39
- Part V, “Remote Management,” on page 49
- Part VI, “Dell DTK,” on page 63

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When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a backslash. Users of platforms that require a forward slash, such as Linux* or UNIX*, should use forward slashes as required by your software.

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We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comment feature at the bottom of each page of the online documentation, or go to www.novell.com/documentation/feedback.html and enter your comments there.

Additional Documentation

For the latest documentation on installing or upgrading to ZENworks 7 Linux Management, see the *Novell ZENworks 7 Linux Management - Dell Edition Installation Guide*.

For the latest documentation on configuring and managing ZENworks 7 Linux Management, see the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

Policy Handlers

If the Policy Handlers component of Novell® ZENworks® Linux Management - Dell Edition displays an error message, you can look it up in the Error Messages section. If a problem is not accompanied by an error message, or if specific instructions for an error message are not available, you can try more general troubleshooting strategies to resolve the problem.

This section contains the following topics:

- Chapter 1, “Policy Handlers Error Messages,” on page 11
- Chapter 2, “Policy Handlers Troubleshooting Strategies,” on page 17

Policy Handlers Error Messages

1

This section contains detailed explanations of the error messages you might encounter using the Novell® ZENworks® Linux Management - Dell Edition Policy Handler component:

- "General Error Messages" on page 11
- "Remote Execute Policy Error Messages" on page 16

1.1 General Error Messages

- "The policy_name could not be enforced because it contains invalid keys" on page 12
- "The policy_name could not be enforced because few keys defined in the policy could not be cleared appropriately before enforcement" on page 12
- "The policy_name could not be enforced because the format of the policy data was invalid" on page 12
- "The policy_name could not be enforced because the user specified was invalid" on page 12
- "The policy_name could not be enforced because the username has not been specified in the policy" on page 13
- "The GConfEnforcer could not find any settings to read from the device" on page 13
- "The GConfEnforcer could not read the requested settings from the device for the specified user" on page 13
- "The settings made by the policy_name enforcers could not be cleared completely. Settings made by policies of this type might still be in effect on the device" on page 13
- "The policy_name could not be enforced because there was an error in setting or unsetting the values into the configuration source" on page 14
- "The read settings operation could not be performed by the enforcer GConf Enforcer because there was an error in reading from the configuration source" on page 14
- "The enforcement of policy_name was unsuccessful and the application is not installed/ compatible. The version of name of the application should be >= minimum required version" on page 14
- "The enforcement of name of the policy was unsuccessful and the operating system distribution is not compatible. The distribution should be >= distribution required version. Only some keys might be enforced" on page 15
- "The policy_name will not be enforced because the name of the application is not installed" on page 15
- "The policy_name will not be enforced because the operating system is not required distribution version or higher" on page 15
- "The policy_name was requested to be enforced, however, it is already executing, therefore, we will not start it again." on page 15
- "Rescheduling the enforcement of name of the policy for 2 minutes later, because its type is not re-entrant and another policy of this type is already executing." on page 16

The *policy_name* could not be enforced because it contains invalid keys

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: Some other application might have locked the settings that are defined in the policy they cannot be written to GConf.

Action: Ask the user to login again to the managed device.

The *policy_name* could not be enforced because few keys defined in the policy could not be cleared appropriately before enforcement

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: Some other application might have locked the settings that are defined in the policy. They could not be removed from GConf.

Action: Ask the user to log in again to the managed device.

The *policy_name* could not be enforced because the format of the policy data was invalid

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The policy details were corrupted while retrieving or applying it.

Action: Perform the following:

1. To refresh the policy details, run the following command from the command line:

   ```
   /opt/novell/zenworks/bin/rug refresh
   ```

2. If the policy is not enforced, stop zmd by running the following command from the command line:

   ```
   /etc/init.d/novell-zmd stop
   ```

3. Remove the policy cache files from /var/opt/novell/zenworks/cache/zmd/PolicyManager/policies.xml.

4. Start zmd by running the following command from the command line:

   ```
   /etc/init.d/novell-zmd start
   ```

5. Ask the user to log in again to the managed device.

The *policy_name* could not be enforced because the user specified was invalid

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The user's login entry for device does not exist in the /etc/passwd file.

Action: Make sure that the user's entry exists in the /etc/passwd file.

Possible Cause: An internal error occurred while applying the policy.

Action: Perform the following:

1. Restart zmd by running the following command from the command line:

   ```
   /etc/init.d/novell-zmd restart
   ```

2. Ask the user to log in again to the managed device.

The *policy_name* could not be enforced because the username has not been specified in the policy

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: An internal error occurred while applying the policy.

Action: Perform the following:

1. Restart zmd by running the following command from the command line:

   ```
   /etc/init.d/novell-zmd restart
   ```

2. Ask the user to login again to the managed device.

The GConfEnforcer could not find any settings to read from the device

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The default schema files of GConf are corrupted or not valid.

Action: Ensure that the default schema files of GConf are valid.

Possible Cause: You might not have configured any specific GConf values for the user.

Action: Configure some values for the user.

For more information about configuring GConf values, refer "Understanding Policies" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

The GConfEnforcer could not read the requested settings from the device for the specified user

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The user's entry does not exist in the /etc/passwd file.

Action: Make sure that the user's entry exists in the /etc/passwd file.

The settings made by the *policy_name enforcers* could not be cleared completely. Settings made by policies of this type might still be in effect on the device

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: Some other application might have locked the settings that are defined in the policy, so cannot be removed from GConf.

Action: Perform the following:

1. Ask the user to log in again to the managed device.
2. Clear the policy enforcement again on the managed device.

The *policy_name* could not be enforced because there was an error in setting or unsetting the values into the configuration source

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The home directory of a user who has logged in to the managed device does not exist in the /etc/passwd file.

Action: Ensure that a valid home directory is specified for a user on the managed device in the /etc/passwd.

Possible Cause: Root has insufficient rights to access the home directory of a user on the managed device.

Action: Ensure that root has sufficient rights to access the home directory.

Possible Cause: Some other application might have locked the settings that are defined in the policy, so they cannot be written to GConf.

Action: Ask the user to log in again to the managed device.

The read settings operation could not be performed by the enforcer GConf Enforcer because there was an error in reading from the configuration source

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The home directory of a user whose settings are being retrieved from the managed device does not exist in the /etc/passwd file.

Action: Ensure that a valid home directory is specified for a user on the managed device in /etc/passwd file.

Possible Cause: The user does not have sufficient rights to access the directory from the ZENworks Management Daemon.

Action: Ensure that the user has sufficient rights to access the ZENworks Management Daemon.

Possible Cause: Some other application might have locked the settings that are defined in the policy, so they cannot be written to GConf.

Action: Retry importing the settings.

The enforcement of *policy_name* was unsuccessful and the application is not installed/compatible. The version of *name of the application* should be >= *minimum required version*

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The application (Firefox*, Epiphany*, or EvolutionTM) is not installed or the specified version is earlier than the minimum supported version.

Action: Upgrade the application to the minimum required version and try enforcing the policy again.

The enforcement of *name of the policy* was unsuccessful and the operating system distribution is not compatible. The distribution should be >= *distribution required version*. Only some keys might be enforced

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The distribution or version of the operating system is not compatible with the policy you are trying to enforce.

Action: Associate the policy to a device with the required distribution and version of the operating system.

The *policy_name* will not be enforced because the *name of the application* is not installed

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The policy might be associated to a device that does not have the application installed.

Action: Install the required application.

The *policy_name* will not be enforced because the operating system is not *required distribution version* or higher

Source: ZENworks Linux Management; Policy Handlers

Severity: Critical

Possible Cause: The Novell Linux Desktop policy is associated to a device that does not have Novell Linux Desktop operating system.

Action: Associate the policy only to devices having Novell Linux Desktop operating system installed.

The *policy_name* was requested to be enforced, however, it is already executing, therefore, we will not start it again.

Source: ZENworks Linux Management; Policy Handlers

Severity: Important

Explanation: If two or more users are logging into the device at the same time, the policy enforcement might not have finished for the first user before it started for the other user. The specified policy is not enforced for users other than the first user.

Possible Cause: Two or more users have logged in to the device at the same time.

Action: The users after the first user should login again for the policies to take effect.

Possible Cause: One of the policies is taking a long time.

Action: For Text File and Remote Execute policies, review any scripts/programs specified in the policy to see if they could take excessive time. Correct those situations to reduce the amount of time and try enforcing the policy again. For GConf-based policies, do not include any settings in the policy that are not relevant to you. If the policy data is correct, then restart ZMD and enforce the policy again.

Possible Cause: The time interval for enforcing the policy is too small compared to the amount of time it takes to enforce the policy.

Action: Increase the time interval.

1. In the ZENworks Control Center, click Policies.
2. Click any Remote Execute or Text File policy for which you want to increase the time interval.
3. On the Summary page, click Relative to Refresh in Assignments section.
4. In the Edit Schedule dialog box, increase the time interval you have specified in After Executing, Repeat Every option.

Rescheduling the enforcement of *name of the policy* for 2 minutes later, because its type is not re-entrant and another policy of this type is already executing.

Source: ZENworks Linux Management; Policy Handlers

Severity: Important

Possible Cause: A read settings request was made to the managed device while a user was trying to login.

Action: Ask the user to login again to the managed device.

Possible Cause: There is an internal error.

Action: Restart ZMD and ask the user to login again to the managed device.

1.2 Remote Execute Policy Error Messages

- "The policy_name was enforced and the program launched did not complete the execution" on page 16

The *policy_name* was enforced and the program launched did not complete the execution

Explanation: This message indicates that the launched script or binary or java* program didn't complete the execution when the enforcer returned, so the exit code returned by the launched program could not be reported in the message. This message does not mean that the launched program was terminated abnormally.

Possible Cause: While creating the policy, the Maximum Time to Wait setting was specified as Do Not Wait or Wait For *number of seconds* Secs.

Action: In the Maximum Time to Wait setting, select Wait Till the Program Completes the Execution.

Policy Handlers Troubleshooting Strategies

2

This section provides solutions to problems you might encounter when using Novell® ZENworks® Linux Management - Dell Edition Policy Handler component.

- "General Troubleshooting Strategies" on page 17
- "Troubleshooting the Epiphany Policy" on page 20
- "Troubleshooting the Generic GNOME Policy" on page 20
- "Troubleshooting the Remote Execute Policy" on page 21
- "Troubleshooting the Text File Policy" on page 22

2.1 General Troubleshooting Strategies

- "The new policy is not enforced on the device after multiple refreshes" on page 17
- "The updated policy is not being enforced on the device after multiple refreshes" on page 19
- "A new policy is not enforced following an immediate manual refresh after policy assignment" on page 19
- "The assigned policies are enforced but applications do not reflect the specified behavior" on page 19
- "The policy is not displayed in the Effective Policies list" on page 20

The new policy is not enforced on the device after multiple refreshes

Source:	ZENworks Linux Management; Policy Handlers
Possible Cause:	The policy does not display in the effective policies list of the device.
Action:	In the policy Summary page, assign the policy to the device by using Assignment section.
Possible Cause:	The minimum system requirements for the policy to be enforced on the device are not met.
Action:	Ensure that the minimum system requirement for the policy to be enforced on the managed device are met.
Possible Cause:	The policy enforcement schedule is not set.
Action:	For the Text File and Remote Execute policies, verify that the schedule to enforce a policy has been set.
Action:	For GNOME-based policies, verify that the User Login event has occurred by viewing the /var/opt/novell/log/zenworks/zmd-messages.log file.
Possible Cause:	For policies other than Remote Execute and Text File, there might be more than one policy of the same type associated with the device.
Action:	Define all your settings only in one policy and associate it to the device.

Possible Cause: The policy was not refreshed on the device.

Action: Perform the following:

1. If you have recently assigned the policy to the managed device, wait for a few minutes to see if the policy is simply slow in being enforced.
2. If it is not enforced within a few minutes, on the ZENworks Control Center, go to the Devices page and select the device where you have assigned a policy.
3. In the Action menu, select Refresh Device.
4. On the managed device, open the file /var/opt/novell/zenworks/cache/zmd/PolicyManager/Policies.xml.
5. Search for the policy you have defined by using its name as the search string..
6. Refresh the device multiple times.

Possible Cause: You have not logged in through the user interface login on the device.

Explanation: If the policy is set to run on User Login, a user for whom the policy has not applied should log in by using the user interface on the device.

Action: Make sure that you log in through the user interface and verify the policy status again.

Possible Cause: The window manager is not GDM and KDM.

Action: By default, GConf-based policies support GDM, KDM, or XDM display managers. If you want your existing Display Manager to change to GDM, KDM, or XDM:

If you are using the Novell Linux Desktop or SUSE® Linux and you want to change to GDM, KDM, or XDM:

1. Edit the /etc/sysconfig/displaymanager file as follows:

   DISPLAYMANAGER=<<*GDM, KDM, or XDM*>>

   For more details, refer to the GNOME Documentation (//http://www.gnome.org/projects/gdm/docs/gdm.html/)
2. Edit the /usr/X11R6/bin/gnome file and add the following to the beginning of the file:

   `/opt/novell/zenworks/bin/checkEnforcement`

If you are using Red Hat* and you want to change to GDM, KDM, or XDM:

1. Edit the /etc/sysconfig/desktop file as follows:

   DISPLAYMANAGER=<<*GDM, KDM, or XDM*>>
2. Edit the /etc/X11/xdm/Xsession file and add the following to the beginning of the file:

   `/opt/novell/zenworks/bin/checkEnforcement`

NOTE: If you do not want to use the GDM, KDM, or XDM Display Manager, you must manually make changes in the configuration file. This delays the

start of the desktop session and allows the enforcement of Gconf-based policies to be completed. To do this, you must create a file similar to /usr/X11R6/bin/gnome(on SuSE/NLD) or /etc/X11/xdm/Xsession(on Red Hat). These files must satisfy the following conditions:

- A user without the administrator privilege should not be able to edit the file.
- The file should be invoked every time a user logs in using the GUI

Add the following to the beginning of the file:

```
/opt/novell/zenworks/bin/checkEnforcement
```

The updated policy is not being enforced on the device after multiple refreshes

Source: ZENworks Linux Management; Policy Handlers

Possible Cause: The Revision number of the policy was not incremented.

Action: To increment the revision number:

1. In ZENworks Control Center, click Policies.
2. Click the policy for which you want to increment the revision number.
3. On the Summary page, increment the revision number and refresh the device.

To check the version of the policy available in the Cache:

1. Open the /var/opt/novell/zenworks/cache/zmd/PolicyManager/Policies.xml file.
2. Search for the policy name. The version should be listed in between <Version> </Version>.

A new policy is not enforced following an immediate manual refresh after policy assignment

Source: ZENworks Linux Management; Policy Handlers

Possible Cause: The synchronization between a policy and the managed device might have been delayed.

Action: Wait for 5 minutes before manually refreshing after you update or assign a policy to the managed device.

The assigned policies are enforced but applications do not reflect the specified behavior

Source: ZENworks Linux Management; Policy Handlers

Possible Cause: The desktop session has started before enforcement was complete.

Action: Log out and log in from the managed device where the policy has been enforced.

The policy is not displayed in the Effective Policies list

Source: ZENworks Linux Management; Policy Handlers

Possible Cause: A schedule is not specified on the Policy Schedule page.

Action: Define a schedule:

1. In the ZENworks Control Center, click Policies.
2. Click the policy for which you want to define a schedule.
3. On the Summary page, click Advanced in the Assignments section.
4. In the Edit Schedule dialog box, specify an appropriate schedule, then click OK.

   The schedule is defined for the policy you have selected.

2.2 Troubleshooting the Epiphany Policy

- "Unable to find the downloaded file even after enforcing the Epiphany policy" on page 20

Unable to find the downloaded file even after enforcing the Epiphany policy

Source: ZENworks Linux Management; Policy Handlers

Possible Cause: You might have provided an incorrect path or you might not have the necessary rights to write to the directory.

Action: Perform the following:

1. Ensure that users have Read, Write, and Execute rights to the download directory.
2. If the absolute path is not specified in the download folder, specify only the directory name.

   A directory with this name is created in user's home directory and all downloaded files are saved in that directory.

2.3 Troubleshooting the Generic GNOME Policy

- "The Generic GNOME policy is not being enforced for some applications" on page 20
- "The warning is logged even if the distribution system requirements are met" on page 21

The Generic GNOME policy is not being enforced for some applications

Source: ZENworks Linux Management; Policy Handlers; Generic GNOME Policy

Explanation: The Generic GNOME policy defines setting for many applications. Not all the applications reflect the settings that are defined in the policy.

Possible Cause: The applications that do not reflect the policy settings might not be working properly with GConf.

Action: To check if the problem is with the application and not with the ZENworks Linux Management, perform the following:

1. Open the GConf Editor.

2 Navigate to the settings that you have configured.

3 Select the setting you have defined.

If the GConf Editor displays that this value cannot be changed, the policy is enforced appropriately. The problem might be with the application. Refer to the application documentation to resolve the issue.

If the GConf Editor displays that this value can be changed, see "The new policy is not enforced on the device after multiple refreshes" on page 17

Possible Cause: The application is started before the policy settings are enforced.

Action: Restart the application.

The warning is logged even if the distribution system requirements are met

Source: ZENworks Linux Management; Policy Handlers; Generic GNOME Policy

Possible Cause: After the settings are imported from the managed device, the system requirements might have changed or removed before the policy was applied on the managed device.

Action: If the settings in the policy are not distribution dependent, ignore the warning.

If the policy is distribution dependent, add or modify system requirements on the Details page of the policy.

2.4 Troubleshooting the Remote Execute Policy

- "An error occurs while executing a given script, binary, or Java program" on page 21
- "Policy enforcement does not give the status of the launched program" on page 22

An error occurs while executing a given script, binary, or Java program

Source: ZENworks Linux Management; Policy Handlers; Remote Execute Policy

Possible Cause: The input parameters given in the policy are incorrect.

Action: If you have not defined your own script:

1 Combine the inputs for the following fields as one line in the policy:

```
InterpreterName InterpreterParameters ProgramName
ProgramParameters
```

2 On the managed device, execute the above statement from the command line.

3 If there is an error, give the correct parameters for InterpreterName, InterpreterParameters, ProgramName, and ProgramParameters.

If you have defined your Own Script, perform the following:

1 On the managed device, create a file containing the script you have specified in the policy.

2 Execute the script file from the command line.

3 If there is an error, give the correct parameters for InterpreterName, InterpreterParameters, ProgramName, and ProgramParameters.

4 Copy the correct script to the policy.

Possible Cause: In the Binary or Java executable type, shell or redirection operators are specified in the parameters.

Action: If you want to use shell or redirection operators with a Binary or Java executable, perform the following:

1 On the Remote Execute policy page, select Script as the Executable type.

2 In Script to Run field, select Define Your Own Script.

3 Combine the inputs for the following fields as one line in the policy:

```
InterpreterName InterpreterParameters ProgramName
ProgramParameters
```

Policy enforcement does not give the status of the launched program

Source: ZENworks Linux Management; Policy Handlers; Remote Execute Policy

Possible Cause: The Maximum Waiting Time setting might not have the right value.

Action: On the Remote Execute policy page, in the Maximum Time to Wait field, select Wait Till the Program Completes the Execution.

2.5 Troubleshooting the Text File Policy

- "The Text File policy is not enforced" on page 22
- "Unable to find the backup file after the Text File policy has modified the file" on page 22
- "Text File policy enforcement failed because of an error, but the file still appears modified or some unknown files appear in the same directory as the file" on page 23
- "How to ensure that the post-change action has been successful when the Text File policy was enforced" on page 23

The Text File policy is not enforced

Source: ZENworks Linux Management; Policy Handlers; Text File Policy

Possible Cause: Policy Enforcement might have failed.

Action: Ensure that the policy has been enforced correctly by checking the Event Log of the policy or of the managed device.

Possible Cause: The search string was not found in the file.

Action: Verify that the Additional Info field in a log message contains a list of changes that were not performed. Ensure that the search string specified in the changes which were not done is found in the file.

Possible Cause: The pre-change action that is specified in the policy failed and the Action When the Execution Fails field was set to Do Not Modify the Text File.

Action: Ensure that the pre-change action does not fail.

Unable to find the backup file after the Text File policy has modified the file

Source: ZENworks Linux Management; Policy Handlers; Text File Policy

Possible Cause: There was an error while creating the backup of the modified file.

Action: Perform the following:

1. Verify the value of the backup exit code in the message that is logged after policy was enforced.
2. If the exit code is 1, it indicates that there was an error while taking the backup. Check the Additional Information field of the message to get more information on the error that is occurred.

Possible Cause: You might not be looking at the correct location of the backup.

Action: Perform the following:

1. Verify the value of the backup exit code in the message that is logged after policy was enforced.
2. If the exit code is 0, it indicates that the backup was taken successfully. Check to see if the backup file is in the same directory as the modified file.

Text File policy enforcement failed because of an error, but the file still appears modified or some unknown files appear in the same directory as the file

Source: ZENworks Linux Management; Policy Handlers; Text File Policy

Possible Cause: When the text file enforcement failed, there was also an error while rolling back the changes in the files being modified.

Action: Perform the following:

1. Verify the value of the rollback exit code in the logged error message.
2. If the exit code is 1, it indicates that there was an error while rolling back the changes. Check the Additional Information field of the message to get more information the error that occurred during rollback.

Possible Cause: There might be another Text File policy that modifies the same file.

Action: Perform the following:

1. Verify the value of rollback exit code in the logged error message.
2. If the exit code is 0, it indicates that the rollback was done successfully. Check to see if there is another Text File policy that modifies the same file.
3. If the exit code is -1, it indicates that the rollback operation was not done because the file was not modified. Check to see if there is another Text File policy that modifies the same file.

How to ensure that the post-change action has been successful when the Text File policy was enforced

Source: ZENworks Linux Management; Policy Handlers; Text File Policy

Action: Verify the value of the post-change action exit code in the message that was logged after policy was enforced. This value is the exit code, which was returned by the program or script launched in the post-change action.

Event Monitoring

If the Event Monitoring component of Novell® ZENworks® Linux Management - Dell Edition displays an error message or if specific instructions for an error message are not available, you can try the more general troubleshooting strategies to resolve the problem.

This section contains the following topic:

- Chapter 3, “Event Monitoring Troubleshooting Strategies,” on page 27

Event Monitoring Troubleshooting Strategies

3

This section provides solutions to problems you might encounter when using Novell® ZENworks® Linux Management - Dell Edition Event Monitoring component.

3.1 Troubleshooting Event Monitoring

- "Changing the severity level for a local log from the Centralized Message Logging setting in Novell Control Center is not taking effect" on page 27
- "SMTP mail is not working for the GMail server" on page 27
- "Unable to send e-mail to the specified e-mail address" on page 27
- "I am receiving unknown traps on the trap console" on page 28
- "Unable to send the traps to the trap console" on page 28

Changing the severity level for a local log from the Centralized Message Logging setting in Novell Control Center is not taking effect

Severity: ZENworks Linux Management; Event Monitoring

Possible Cause: The Debug and Above message severity set using the command line interface takes precedence over the severity defined using the Centralized Message Logging user interface.

Action: Turn off the Debug and Above severity from command line interface using the following command:

```
set debug-level off
```

SMTP mail is not working for the GMail server

Severity: ZENworks Linux Management; Event Monitoring

Possible Cause: The Event Monitoring component of ZENworks 7 Linux Management does not support SMTP on a Transport Layer Security (TLS) server.

Action: For the GMail server, use only SMTP and Secure SMTP servers.

Unable to send e-mail to the specified e-mail address

Severity: ZENworks Linux Management; Event Monitoring

Possible Cause: You might have defined filters or relays on the SMTP server.

Action: Clear the filters or relay that you have defined that block the SMTP packets from the ZENworks 7 Linux Management server.

Possible Cause: The authentication information you have provided in the E-mail Notification section of the Centralized Message Logging page is not correct.

Action: Ensure that the username and password you have specified are correct.

I am receiving unknown traps on the trap console

Severity: ZENworks Linux Management; Event Monitoring

Possible Cause: The messagelogger.mib file is not compiled on the server.

Action: Compile the messagelogger.mib file located at /opt/novell/zenworks/share/messagelogger.

For example, if you want to compile messagelogger.mib on the Management and Monitoring Services console of ZENworks 7 Server Management, do the following:

1. Right-click the ConsoleOne® Site Serve object, then click Properties.
2. In Properties of *name of the Site Server* dialog box, select the MIB Pool page.
3. Click Modify Pool.
4. In the Add/Remove MIBs dialog box, click Add, then select the MIB that needs to be compiled.
5. Click Compile.

Unable to send the traps to the trap console

Severity: ZENworks Linux Management; Event Monitoring

Possible Cause: You might have defined filters on the trap console.

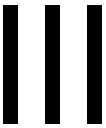
Action: Clear the filters you have defined that block the traps generated from ZENworks 7 Linux Management server.

Possible Cause: The port number you have specified is not correct.

Action: To specify the correct port number:

1. In the ZENworks Control Center, click Configuration.
2. In Management Zone Settings, click Centralized Message Logging.
3. Specify the correct SNMP port number of the trap console in the SNMP Trap section.

Inventory Roll-Up



If the Inventory Roll-Up component of Novell® ZENworks® Linux Management - Dell Edition displays an error message, you can look it up in the Error Messages section. If a problem is not accompanied by an error message or if specific instructions for an error message are not available, you can try more general troubleshooting strategies to resolve the problem.

This section contains the following topics:

- Chapter 4, “Inventory Roll-Up Error Messages,” on page 31
- Chapter 5, “Inventory Roll-Up Troubleshooting Strategies,” on page 37

Inventory Roll-Up Error Messages

4

This section contains detailed explanations of the error messages you might encounter using the Inventory Roll-Up component of Novell® ZENworks® Linux Management - Dell Edition.

- "Error Messages" on page 31

4.1 Error Messages

- "Incorrect input for the time interval between roll-ups" on page 31
- "DNS name not found. Will exit now." on page 31
- "The IP address of destination Inventory server has not been configured in the Inventory Roll-Up Configuration page" on page 32
- "The time interval between inventory roll-ups has not been set. By default, the time interval is set for 7 days." on page 32
- "filename is deleted as it is older than RollupInitTime" on page 32
- "Unable to get zeninvRollupTime from the destination inventory server" on page 32
- "Unable to initiate the file transfer" on page 33
- "Unable to rename the filename.str file" on page 33
- "Error while creating inner zip file" on page 33
- "Sanity check for prp file filename failed. The file may be corrupt" on page 33
- "The name format of the filename str file is incorrect" on page 34
- "Could not get service DN from the prp file" on page 34
- "Unable to retrieve the server name from prp file" on page 34
- "Unable to procure/retrieve the schedule time from prp file" on page 34
- "Irrecoverable internal error: error_message. State machine crashed" on page 34
- "Compression error while compressing and deleting str files" on page 34
- "The conversion of Deviceinfo to STR format has failed" on page 34
- "Datamodel Exception occurred while extracting devices from the Inventory database" on page 34
- "An exception occurred while writing to an STR file" on page 35

Incorrect input for the time interval between roll-ups

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Informational

Action: Specify a valid value in hours. If you do not specify a value, the Inventory Roll-up component takes the default time interval (168 hrs).

DNS name not found. Will exit now.

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Possible Cause: Unable to get the DNS name of the local machine.

Action: Ensure that the local machine has a valid DNS name.

The IP address of destination Inventory server has not been configured in the Inventory Roll-Up Configuration page

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Informational

Action: To enable the roll-up:

1. In the ZENworks Control Center, click Configuration.
2. In the Management Zone Settings pane, click the Device Inventory category.
3. In the Inventory Roll-Up Settings pane, specify the IP address of the destination server.
4. Click Apply, then click OK.

The time interval between inventory roll-ups has not been set. By default, the time interval is set for 7 days.

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Informational

filename is deleted as it is older than RollupInitTime

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Informational

Explanation: Based on the Discard Scan Data Time in the Inventory Service object properties of the Receiver, the Sender deletes the compressed .zip files in the entpushdir directory that have been created earlier than the specified discard scan data time.

Unable to get zeninvRollupTime from the destination inventory server

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Ensure that the ZENworks Web Server is running on the ZENworks Server Management or the ZENworks Desktop Management destination Inventory server.

Action: On the destination Inventory server, start the Receiver from the Service Manager.

Action: If the Sender fails to connect to the Receiver even after the retries, contact Novell Support (http://support.novell.com).

Action: Ensure that the network connection between the ZENworks Linux Management server and the ZENworks Desktop Management or ZENworks Server Management server is working.

Unable to initiate the file transfer

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Ensure that the ZENworks Web Server is running on the ZENworks Server Management or the ZENworks Desktop Management destination Inventory server.

Action: On the destination Inventory server, start the Receiver from the Service Manager.

Action: If the Sender fails to connect to the Receiver even after the retries, contact Novell Support (http://support.novell.com).

Action: Ensure that the network connection between the ZENworks Linux Management server and the ZENworks Desktop Management or ZENworks Server Management server is working.

Unable to rename the *filename*.str file

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Explanation: The str files in the entmerge directory cannot be transferred to entpushdir.

Action: Ensure that the entmerge directory exists.

Action: Ensure that you have rights to transfer the str files to the entpushdir directory.

Error while creating inner zip file

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Possible Cause: The disk on the Inventory server is full.

Action: Ensure that there is free disk space on the server.

Possible Cause: The directory containing the .str files does not exist.

Action: Ensure that the directory exists on the Inventory server.

Possible Cause: There is no Read and Write access to the files in the directory.

Action: Ensure that the directory has Read and Write access for the files in the directory.

Sanity check for prp file *filename* failed. The file may be corrupt

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

The name format of the *filename* str file is incorrect

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

Could not get service DN from the prp file

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

Unable to retrieve the server name from prp file

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

Unable to procure/retrieve the schedule time from prp file

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Informational

Action: Contact Novell Support (http://support.novell.com).

Irrecoverable internal error: *error_message*. State machine crashed

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

Compression error while compressing and deleting str files

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

The conversion of Deviceinfo to STR format has failed

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

Datamodel Exception occurred while extracting devices from the Inventory database

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

An exception occurred while writing to an STR file

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Severity: Critical

Action: Contact Novell Support (http://support.novell.com).

Inventory Roll-Up Troubleshooting Strategies

5

This section provides solutions to problems you might encounter when using the Inventory Roll-Up component of Novell® ZENworks® 7 Linux Management - Dell Edition.

- "Troubleshooting Inventory Roll-Up" on page 37

5.1 Troubleshooting Inventory Roll-Up

- "Inventory Roll-up fails to roll up the inventory data" on page 37

Inventory Roll-up fails to roll up the inventory data

Source: ZENworks 7 Linux Management; Inventory Roll-Up

Possible Cause: The IP address or the DNS name of the destination server is incorrect.

Action: Ensure that the correct IP address or the DNS name of the destination server has been configured in the Inventory Roll-Up settings pane of the ZENworks Control Center.

Possible Cause: The Receiver might not be running on the destination Inventory server of ZENworks Server Management or ZENworks Desktop Management.

Action: On the destination Inventory server, start the Receiver from the Service Manager.

Action: If the Sender fails to connect to the Receiver even after the retries, contact Novell Support (http://support.novell.com).

Possible Cause: The ZENworks Web Server is not running on the ZENworks Server Management or the ZENworks Desktop Management destination Inventory server.

Action: Ensure that the ZENworks Web Server is running on the ZENworks Server Management or the ZENworks Desktop Management destination Inventory server.

Possible Cause: The network connection between the ZENworks Linux Management server and the ZENworks Desktop Management or ZENworks Server Management server is not working.

Action: Ensure that the network connection between the ZENworks Linux Management server and the ZENworks Desktop Management or ZENworks Server Management server is working.

Possible Cause: The ZENworks 7 Linux Management database is not running.

Action: Ensure that the ZENworks 7 Linux Management database is up and running.

Disaster Recovery

IV

If the Disaster Recovery component of Novell® ZENworks® Linux Management - Dell Edition displays an error message, you can look it up in the Error Messages section. If a problem is not accompanied by an error message or if specific instructions for an error message are not available, you can try more general troubleshooting strategies to resolve the problem.

This section contains the following topics:

- Chapter 6, “Disaster Recovery,” on page 41
- Chapter 7, “Disaster Recovery Error Messages,” on page 47

Disaster Recovery

6

This section explains how to restore a Novell® ZENworks® Linux Management system after the failure of a ZENworks Primary Server.

Restoration consists of the following:

1. Converting a ZENworks Secondary Server with an eDirectory read/write replica to a ZENworks Primary Server.
2. Moving all the devices that were managed by the old ZENworks Primary Server to the new ZENworks Primary Server. For more information, see "Registering Devices" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

The following sections provide additional information:

- Section 6.1, "Safeguarding Your System through Backups," on page 41
- Section 6.2, "Safeguarding Your System through Server Configuration," on page 42
- Section 6.3, "Restoring Your System after a Primary Server Failure," on page 43

6.1 Safeguarding Your System through Backups

To restore your ZENworks Linux Management environment if the ZENworks Primary Server fails, you need backups of the Data Store, the Object Store, the package repository, and the zlmmirror configuration files.

6.1.1 The Data Store

ZENworks Linux Management supports both PostgreSQL and Oracle* databases as the ZENworks Data Store; both engines provide backup mechanisms that should be implemented. For information on backing up and restoring the Data Store, see "ZENworks Database Maintenance" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

6.1.2 The Object Store

The ZENworks Object Store is Novell eDirectory 8.7.3. For information on backing up and restoring the ZENworks Object Store, see "ZENworks Database Maintenance" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

6.1.3 The Package Repository

The package repository is the /var/opt/novell/zenworks/pkg-repo directory on the ZENworks Primary Server. You need to make a periodic backup of this directory. For more information on package management, see "Package and Content Management" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

6.1.4 The zlmmirror Configuration Files

If zlmmirror has been configured, you should back up the zlmmirror configuration files that the administrator has created. Because the names of the configuration files for zlmmirror and their locations are determined by the administrator, it is the administrator's responsibility to keep them backed up. For more information on zlmmirror, see "Mirroring Software" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

6.2 Safeguarding Your System through Server Configuration

When ZENworks Linux Management is installed, a Management Zone is created. The Zone is managed by a group of ZENworks servers; the first server is the ZENworks Primary Server and the others are ZENworks Secondary Servers. The Management Zone is highly dependent on the availability of the Data Store and the Object Store to function properly. Thus, it becomes important to understand how to configure your environment to provide fault tolerance and higher availability.

6.2.1 Data Store

The ZENworks Linux Management software provides an option to install the Data Store locally onto the ZENworks Primary Server. This option is generally sufficient in an environment where fault tolerance is not required. However, if the ZENworks Primary Server is lost, all of the data is lost unless there is a backup of the Data Store prior to the disaster. When the primary server fails, ZENworks Secondary Servers lose connectivity to the Data Store, which causes much of the data in the ZENworks Control Center to become unreadable. The ZENworks Linux Management system continues to function, but no data is recorded.

To provide fault tolerance, we recommend locating the Data Store on a machine that is remote from the ZENworks Primary and Secondary Servers. The ZENworks Linux Management software provides an option to install to a remote PostgreSQL or Oracle database. In this case, when the ZENworks Primary Server is lost, the secondary servers continue to have access to the Data Store.

6.2.2 Object Store

The ZENworks Object Store is Novell eDirectory 8.7.3. The ZENworks Primary Server holds a master replica of the Object Store and the next two consecutive ZENworks Secondary Servers installed in the Management Zone hold a read/write replica of the Object Store. The rest of the secondary servers do not hold a replica of the Object Store.

When the ZENworks Primary Server is disconnected, removed for maintenance, or otherwise lost, the ZENworks Secondary Servers with the read/write replicas act as a live backup of the ZENworks Object Store to the other ZENworks Secondary Servers that have no replica. By default, secondary servers with no replica go through the primary server to obtain Object Store information; as a temporary solution, eDirectory on those secondary servers might need to be restarted to provide functionality while the primary server is out. zlmmirror and content replication are functions of the primary server, so those services remain interrupted until the primary server is brought back up.

If the primary server is lost, the master replica of the Object Store is also lost. This situation is remedied by converting one of the two secondary servers with a read/write replica of the Object Store to a primary server, then by creating another read/write replica on another secondary server.

6.2.3 Package Repository

Creation of bundles or packages either manually or through zlmmirror or content replication are all functions that are performed through the ZENworks Primary Server.

When the ZENworks Primary Server is disconnected, removed for maintenance, or otherwise lost, bundles and packages cannot be created on the ZENworks Primary Server or replicated to ZENworks Secondary Servers. Existing assignment of replicated bundles and packages remains available to devices registered to ZENworks Secondary Servers. New assignments of replicated bundles and packages can also be made to those devices. However, new assignments of non-replicated bundles and packages, although they can be made, fail to distribute until the bundles and packages have been replicated to the ZENworks Secondary Server to which the device is registered.

If zlmmirror has been configured in the environment and content replication has taken place, the package repository on the ZENworks Primary Server is replicated onto all ZENworks Secondary Servers. Information about the new bundles and packages is also written to the Data Store. Therefore, when the ZENworks Primary Server is lost and a ZENworks Secondary Server is converted into a new ZENworks Primary Server, the bundles and packages from the zlmmirror operation would already be local to the new ZENworks Primary Server; all that is necessary is to re-create or restore the zlmmirror configuration files onto the new ZENworks Primary Server.

If zlmmirror has been configured in the environment but no content replication has taken place when the ZENworks Primary Server is lost, the zlmmirror operation causes new bundles and packages to be downloaded locally onto the ZENworks Primary Server and their information to be written into the Data Store. When a ZENworks Secondary Server is converted into a new ZENworks Primary Server, the package repository on the new primary server is out of sync with the Data Store. Because the package repository is out of sync with the Data Store, content replication and zlmmirror will fail. Unless you have a backup of these bundles and packages, their information must be removed from the database. This operation also causes any user-created packages to be lost.

6.2.4 Message Logger

The Message Logger continues to function normally regardless of which servers are down. But if the Data Store is local to the primary server and the primary server is down, no database logging occurs until a new Data Store is restored to the environment. Additionally, if the Data Store is down, the conversion does not function properly. For more information on the Message Logger, see "Message Logger" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

6.3 Restoring Your System after a Primary Server Failure

Before starting the process of converting a secondary server to a primary server, all the secondary servers that don't have a read/write replica of the ZENworks Object Store need to have eDirectory restarted. When it is restarted, eDirectory recognizes that the primary server is lost and no longer tries to communicate with it. To restart eDirectory:

1. Type `etc/init.d/ndsd restart` on each secondary server that doesn't have a read/write replica of eDirectory.

6.3.1 Converting a Secondary Server to a Primary Server

To convert a ZENworks Secondary Server to a ZENworks Primary Server:

1. Choose a secondary server with a read/write replica to be the new primary server and change the ZENworks Object Store replica on that server to be the master replica by typing `ndsrepair -P -Ad`.
2. On all the secondary servers, copy var/opt/novell/zenworks/zfs/pds/security/csr/*.csr to var/opt/novell/zenworks/zfs/pds/security/*.cer.
3. From within the /opt/novell/convertserver directory, type `./convertserver` on the server that is being promoted to the primary server, then follow the prompts. You'll need the administrator password.
4. If required, restore the ZENworks Data Store (for instructions, see "ZENworks Database Maintenance" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*).
5. If you want to have all the devices that were using the old primary server, change the address of the old primary server name on the DNS server to that of the new primary server.
6. Restore or re-create any zlmmirror configuration files that existed previously.
7. Restore the package and bundle directories if they have been backed up.
8. If you haven't done so already, install ConsoleOne® for Linux.
   - **8a** Download the Linux version of ConsoleOne from www.novell.com/download. You are prompted to enter your Novell account username and password. If you don't have a Novell account, use the "create new account" link.
   - **8b** Save the ConsoleOne compressed file to disk and uncompress it.
   - **8c** Run the cl-install installation script. Install all the snap-ins.
9. Use ConsoleOne to remove the old primary server object from the ZENworks Object Store.
   - **9a** Start ConsoleOne by running the ConsoleOne executable located under /usr/ConsoleOne/bin.
   - **9b** Authenticate to eDirectory by clicking the tree icon. You are prompted with a login credential dialog box. Log in to your server with the following information:
     - Login name: admin
     - Password: Password from the ZLM install
     - Tree: IP address of a secondary server that holds a read/write replica of the ZENworks Object Store
     - Context: system

     9b1 Under My World/NDS/.ZONENAME-TREE/system, select your old primary server object. Right-click and select Delete NDS object. Answer Yes.
10. After a secondary server has been promoted to be the primary server, a read/write replica of the ZENworks Data Store needs to be created on one of the other secondary servers. Use ConsoleOne to create a new read/write eDirectory partition on one of the secondary servers that has no replica.
    - **10a** In the left pane of ConsoleOne, expand NDS. The new zone name is appended with -TREE.

10b Click the new zone name. Click View from the menu, then click Partition and Replica View. The servers and their replica types are listed.

10c Select any server. Right-click it and select Add Replica.

10d Select a server using the browse button. Navigate to the system container, then click the server object that will be your new read/write replica. Click OK.

10e Click OK twice.

6.4 Moving Devices to the New Primary Server

After you have set up a new primary server, the devices managed by the old primary server need to be moved to the new primary server. For instructions on how to do that, see "Registering Devices" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

Disaster Recovery Error Messages 7

This section contains detailed explanations of the error messages you might encounter using the Novell® ZENworks® Linux Management's Disaster Recovery component:

- "Error Messages" on page 47

7.1 Error Messages

- "Error Encountered, Cannot Proceed." on page 47
- "Could not authenticate to the eDirectory server. Please check your password." on page 47

Error Encountered, Cannot Proceed.

Source: ZENworks Linux Management; Disaster Recovery

Severity: Critical

Possible Cause: The zlm.conf file that is required to obtain the LDAP connection information does not exist in /etc/opt/novell/zenworks.

Action: Ensure that the zlm.conf file exists in /etc/opt/novell/zenworks.

Possible Cause: The hibernate.cfg.xml file that is required to obtain database connection and configuration information does not exist in /etc/opt/novell/zenworks.

Action: Ensure that the hibernate.cfg.xml file exists in /etc/opt/novell/zenworks.

Possible Cause: While copying the password from the hibernate.cfg.xml file, you entered an incorrect password to authenticate to the database.

Action: Refer the password that is specified in the hibernate.cfg.xml file and ensure that you specify a correct password.

Could not authenticate to the eDirectory server. Please check your password.

Source: ZENworks Linux Management; Disaster Recovery

Severity: Informational

Possible Cause: When you attempted to authenticate to eDirectoryTM, you might have entered an incorrect password at the shell prompt.

Action: Ensure that you have entered a correct password.

Remote Management

V

If the Remote Management component of Novell® ZENworks® Linux Management - Dell Edition displays an error message, you can look it up in the Error Messages section. If a problem is not accompanied by an error message or if specific instructions for an error message are not available, you can try more general troubleshooting strategies to resolve the problem.

This section contains the following topics:

- Chapter 8, “Remote Management Error Messages,” on page 51
- Chapter 9, “Remote Management Troubleshooting Strategies,” on page 55
- Chapter 10, “Frequently Asked Questions,” on page 59

Remote Management Error Messages

8

This section contains detailed explanations of the error messages you might encounter using the Novell® ZENworks® Linux Management - Dell Edition Remote Management component:

8.1 Error Messages

- "Network error:could not connect to server:port number of the Remote Management service" on page 51
- "Unable to initiate a remote session because the Remote Management settings cannot be read on the Managed device. Contact your ZENworks administrator." on page 52
- "Unable to initiate a remote session because the authentication to the X server, which is running on the managed device, could not succeed. Contact your ZENworks administrator." on page 52
- "host post is not an RFB Server" on page 52

Network error:could not connect to server:*port number of the Remote Management service*

Source: ZENworks Linux Management; Remote Management

Severity: Informational

Possible Cause: The network firewall of the managed device blocks the required port.

Action: Configure the firewall on the managed device to allow incoming connections for the required port.

For example, to configure the firewall on Novell Linux Desktop:

1. In the System menu, click Administrator Settings to launch YaST.
2. In the YaST Control Center, click Security and Users.
3. In the right pane, click Firewall.
4. In Firewall Configuration: Basic Settings, select the Internal Interface according to your preference.
5. In Firewall Configuration: Services, click Expert.
6. In the Edit Additional Services dialog box, specify the Remote Management port numbers in Additional TCP Services, then click OK.
7. Click Next.
8. In Firewall Configuration: Features, click Next.
9. In Firewall Configuration: Logging Options, click Next.
10. In the Save Settings and Activate Firewall dialog box, click Continue.

Possible Cause: The Remote Control service (or Remote Login service) might not be running on the specified port.

Action: Start the Remote Control service (or Remote Login service) on the managed device using the following command:

```
/etc/init.d/xinetd start
```

NOTE: This may start other services enabled under xinetd. Refer xinetd man pages for more details.

Possible Cause: The port number you have specified in the Remote Management dialog box is not correct.

Action: Specify the correct port number in the Remote Management dialog box.

Unable to initiate a remote session because the Remote Management settings cannot be read on the Managed device. Contact your ZENworks administrator.

Source: ZENworks Linux Management; Remote Management

Severity: Important

Possible Cause: Remote Management settings are not available on the managed device.

Action: Do the following:

1. In ZENworks Control Center, click Devices.
2. Click Servers or Workstations.
3. Select the device you want to refresh.
4. In Action menu, click Refresh Device.

Unable to initiate a remote session because the authentication to the X server, which is running on the managed device, could not succeed. Contact your ZENworks administrator.

Source: ZENworks Linux Management; Remote Management

Severity: Informational

Possible Cause: You might have changed the X Server configuration.

Action: Restart the Display Manager.

For example, you can restart the Display Manager as follows:

1. Switch to any one of the text consoles by pressing Ctrl + Alt + F1 in your graphical session.
2. Change the runlevel of the managed device to 3 by entering the following command at the shell prompt:

   ```
   init 3
   ```

3. Change the runlevel back to 5 by entering the following command at the shell prompt:

   ```
   init 5
   ```

host post is not an RFB Server

Source: ZENworks Linux Management; Remote Management

Severity: Important

Possible Cause: The Remote Control Service has failed to authenticate to the X server.

Action: Restart the Display Manager.

1. Switch to any one of the text consoles by pressing Ctrl + Alt + F1 in your graphical session.
2. Change the runlevel of the managed device to 3 by entering the following command at the shell prompt:

   ```
   init 3
   ```

3. Change the runlevel back to 5 by entering the following command at the shell prompt:

   ```
   init 5
   ```

Remote Management Troubleshooting Strategies

9

This section provides solutions to problems you might encounter when using the Novell® ZENworks® Linux Management - Dell Edition Remote Management component:

9.1 Troubleshooting Remote Management

- "Multiple Remote Login sessions to the same managed device fail" on page 55
- "The Remote Management session does not proceed if the managed device is displaying the GNOME logout dialog box" on page 55
- "The Remote Management Viewer window fails to refresh after multiple Remote Management sessions from the same browser session" on page 56
- "The Password dialog box loses focus during a Remote Management session" on page 56
- "Unable to continue with the Remote Control operation because the Remote Management Viewer freezes" on page 56
- "Authentication to the X Server fails" on page 56
- "Only a grey screen is displayed while performing a Remote Login session" on page 57

Multiple Remote Login sessions to the same managed device fail

Severity: ZENworks Linux Management; Remote Management

Possible Cause: The limitation on the maximum number of Remote Sessions configured for XDMCP causes this.

Action: Configure the XDMCP settings on the managed device to allow more multiple Remote Sessions to the agent.

For example, if you want to configure XDMCP on GDM display manager:

1. Run gdmsetup at the shell prompt.
2. In Login Screen Setup window, Click XDMCP.
3. Select the Maximum Remote Sessions option.
4. Configure XDMCP for the number of remote sessions you want to use simultaneously.

The Remote Management session does not proceed if the managed device is displaying the GNOME logout dialog box

Severity: ZENworks Linux Management; Remote Management

Possible Cause: The GNOME session manager freezes all other processes on the logout dialog box by controlling the X Server.

Action: Start the Remote Management session after the user performs an operation in the dialog box on the managed device.

The Remote Management Viewer window fails to refresh after multiple Remote Management sessions from the same browser session

Severity: ZENworks Linux Management; Remote Management

Action: Clear the browser cache.

To clear the browser cache in the Firefox Web browser:

1. In Tools menu of the Firefox browser, select Options.
2. In the right pane, click Privacy.
3. For Cache, click Clear.
4. Restart the browser.

To clear the browser cache in the Internet Explorer Web browser:

1. In the Tools menu of the Internet Explorer browser, select Internet Options.
2. In the General page, click Delete Files in the Temporary Internet Files section.
3. Restart the browser.

The Password dialog box loses focus during a Remote Management session

Severity: ZENworks Linux Management; Remote Management

Explanation: If you launch the ZENworks Control Center using Firefox and establish a Remote Management session, sometimes the focus is not on the password dialog box.

Possible Cause: Incompatibilities between the Java 1.4.x Focus Management and Remote Management Viewer causes the loss of focus of password dialog box.

Action: Click the title bar of the Remote Management Viewer window.

Unable to continue with the Remote Control operation because the Remote Management Viewer freezes

Severity: ZENworks Linux Management; Remote Management

Possible Cause: The current encoding that you have selected might not be able to handle numerous screen updates.

Action: In Remote Management Viewer window, select Hextile encoding in the Options tab and retry.

Authentication to the X Server fails

Severity: ZENworks Linux Management; Remote Management

Explanation: A Remote Control session to a Managed Device fails with an error message "*host port* is not an RFB Server".

Possible Cause: The Remote Control Service has failed to authenticate to the X Server.

Action: Restart the Display Manager.

1. Switch to any one of the text console.

2 Change the runlevel of the managed device to 3 by entering the following command at the shell prompt:

```
init 3
```

3 Change the runlevel back to 5 by entering the following command at the shell prompt:

```
init 5
```

Only a grey screen is displayed while performing a Remote Login session

Severity: ZENworks Linux Management; Remote Management

Explanation: If you select the Remote Login operation in the Remote Management dialog box, the launched session shows only a grey screen with an X cursor.

Possible Cause: XDMCP was not enabled on the managed device.

Action: Manually enable XDMCP by running /opt/novell/zenworks/bin/novell-rm-fixrl.sh with the required options.

If you use the -restartdm option, make sure that all applications are closed, then run the script from the text console.

For example, if you use the GDM display manager with the configuration file that is located at /etc/opt/gnome/gdm/gdm.conf, you can enable XDMCP using the following command:

```
#/opt/novell/zenworks/bin/novell-rm-fixrl.sh -dm gdm -
cf /etc/opt/gnome/gdm/gdm.conf enable
```

Frequently Asked Questions 10

This section provides answers to the questions you might have when using the Novell® ZENworks® Linux Management - Dell Edition Remote Management component:

- Section 10.1, “How do I secure my Remote Management session?,” on page 59
- Section 10.2, “How can I improve Remote Management performance on a slow link?,” on page 60
- Section 10.3, “Why do I get a black screen when I perform the Remote Control operation?,” on page 60
- Section 10.4, “Why does the Remote Management Viewer show only a toolbar at the center of the applet window?,” on page 61
- Section 10.5, “Why is the Novell Remote Management Viewer Applet signed?,” on page 61
- Section 10.6, “Why do I get a warning indicating that an unsecure download is in progress on Internet Explorer?,” on page 61
- Section 10.7, “I rejected the Novell Remote Management certificate and now I am unable to perform Remote Management operations.,” on page 61
- Section 10.8, “Can I use any other third-party VNC viewer to connect to the ZENworks 7 Linux managed device?,” on page 61
- Section 10.9, “Can I use the Novell ZENworks Remote Management Viewer window to Remote Control any third-party VNC server?,” on page 62
- Section 10.10, “Why is the certificate is not displayed while trying to start the Remote Management session for a managed device?,” on page 62

10.1 How do I secure my Remote Management session?

When connecting to remote machines, you should use SSH or VPN. You can also tunnel the VNC protocol through the encrypted SSH channel.

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

1. Establish SSH tunneling to use VNC between the Remote Management Viewer and the managed device.

   For more information on establishing VNC through SSH tunnelling between the Remote Management Viewer and the managed device, refer “Establishing SSH Tunneling” in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide* This information is available at this site. (http://www.uk.research.att.com/archive/vnc/sshvnc.html)
2. In the ZENworks Control Center, click the Devices page.
3. Launch the Remote Control session from Device Tasks in the top left pane.
4. Specify the IP address and the port number of the configured SSH tunnel.
5. Select the desired operation from the drop-down list.

6 Click OK.

10.2 How can I improve Remote Management performance on a slow link?

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 do the following:

- Set the Encoding type 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 a Pentium* III, 500MHz (or more) 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:

- The Tight VNC Web site (http://www.tightvnc.com)
- The Real VNC Web site (http://www.realvnc.com)
- FAQs on x11VNC (http://www.karlrunge.com/x11vnc)

10.3 Why do I get a black screen when I perform the Remote Control operation?

The ZENworks 7 Linux Management provides VNC-based Remote Management, which does not support Remote Control over the Text consoles.

10.4 Why does the Remote Management Viewer show only a toolbar at the center of the applet window?

If the Ask for Permission from User setting is enabled for the managed device, the “Ask For Permission From User On The Managed Device” dialog box appears on the managed device when a remote control session is initiated. The viewer displays the toolbar until the user at the managed device accepts or declines the connection or a timeout occurs.

10.5 Why is the Novell Remote Management Viewer Applet signed?

Any unsigned applet can only connect back to the same device from which it is downloaded. However, the Novell Remote Management Viewer Applet is downloaded from the management server with each remote session request and then connects to different managed device. So, it has to be signed.

10.6 Why do I get a warning indicating that an unsecure download is in progress on Internet Explorer?

All connections to the management server use HTTPS. But, to download the Novell Remote Management Applet from the management server, a HTTP connection is used which causes the warning.

10.7 I rejected the Novell Remote Management certificate and now I am unable to perform Remote Management operations.

Do the following:

1. Restart the browser by closing all the browser window and opening a new browser window.
2. Launch the Novell Remote Management session through the ZENworks Control Center.
3. When the Java security dialog box appears again, choose Yes or Always to perform Remote Management operations.

10.8 Can I use any other third-party VNC viewer to connect to the ZENworks 7 Linux managed device?

Yes. You can use any VNC viewer to connect to a ZENworks 7 Linux Managed Device. However, you need to connect to the port of the corresponding service. By default, the Remote Control Service listens on port 5950 and the Remote Login Service listens on port 5951.

10.9 Can I use the Novell ZENworks Remote Management Viewer window to Remote Control any third-party VNC server?

Yes. You can use Novell Remote Management viewer to Remote Control any third party VNC server.

10.10 Why is the certificate is not displayed while trying to start the Remote Management session for a managed device?

The Remote Management viewer requires the Java 1.4.x plug-in to be installed on the browser machine.

If you are using Firefox web browser, you can verify the plug-in version by entering the following command in the URL bar:

```
about:plugins
```

If you are using the Internet Explorer Web browser, you can verify the plug-in version by clicking Tools > Internet Options > Advanced.

Dell DTK

VI

If the Dell OpenManage Deployment Toolkit (DTK) component of Novell® ZENworks® Linux Management - Dell Edition displays an error message, or if specific instructions for an error message are not available, you can try the more general troubleshooting strategies to resolve the problem.

- Chapter 11, “Dell Configuration Bundle Troubleshooting Strategies,” on page 65

Dell Configuration Bundle Troubleshooting Strategies

11

The following procedure provides a scenario for troubleshooting a Dell Configuration Preboot bundle:

1. Create or modify a Dell Configuration bundle.

   For steps to do this, see "Creating Dell Configuration Bundles" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*.

2. Do one of the following:

   - Assign the bundle to a managed device (see "Creating Dell Configuration Bundles" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*).
   - Create a Preboot Work Assignment rule for an unmanaged device (see "Creating Dell Configuration Bundles" in the *Novell ZENworks 7 Linux Management - Dell Edition Administration Guide*).

3. In the TFTP directory, locate the `.../dell-dtk/dell-dtk.s` file and open it in an editor.

4. Modify this file by adding a # character at the beginning of each of the last two lines to comment them out:

   ```
   ./dtask
   reboot
   ```

5. Save the edited file.

6. Allow the device to boot through PXE.

   The device should be assigned work and boot into the DTK environment, but the assigned work will not be executed, because the `./dtask` and `reboot` lines in the `dell-dtk.s file` were disabled.

7. After the device has booted to the Dell DTK in maintenance mode, press Alt-F2 to obtain a usable console.

8. Check the following items to determine if the Dell Configuration bundle worked correctly:

   - A directory named `/tmp/dell-dtk` should have been created.

     A script named `dell-dtk-maint.s` that is downloaded from `/srv/tftp/dell-dtk` creates the `/tmp/dell-dtk` directory.

   - A utility named `dtktask` should have been placed in the `/tmp/dell-dtk` directory.
   - To determine whether various environment variables have been set appropriately, enter the following commands to see if the TFTPIP and PROXYADDR variables display the IP address of your ZENworks® Imaging server:

     ```
     echo $TFTPIP
     echo $PROXYADDR
     ```

9. If all of these items show no problems, change to the `/tmp/dell-dtk` directory.

10 Run the dtktask utility:

```
./dtktask -v
```

The verbose option (-v) is optional. It causes the information being sent to the `dtktask.log` file to be displayed on screen.

11 To further determine any problems, examine the following log file:

```
/var/log/dtktask.log
```

If the log file doesn't resolve the problem, determine what action to take from the information in the log file.

To troublshoot, you could manually download the files, run the utilities, and look for error messages on screen.

12 After each trial run, reboot the device or reassign the Preboot work so that your troubleshooting starts at a known state, then repeat these steps to troublshoot a different Dell Configuration bundle.