



**Security Threat Response Manager**

# **STRM LM Administration Guide**

***Release 2008.3***

**Juniper Networks, Inc.**

1194 North Mathilda Avenue

Sunnyvale, CA 94089

USA

408-745-2000

**[www.juniper.net](http://www.juniper.net)**

Part Number: 530-028827-01, Revision 1

## Copyright Notice

Copyright © 2008 Juniper Networks, Inc. All rights reserved. Juniper Networks and the Juniper Networks logo are registered trademarks of Juniper Networks Inc. in the United States and other countries. All other trademarks, service marks, registered trademarks, or registered service marks in this document are the property of Juniper Networks or their respective owners. All specifications are subject to change without notice. Juniper Networks assumes no responsibility for any inaccuracies in this document or for any obligation to update information in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.

## FCC Statement

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense. The following information is for FCC compliance of Class B devices: The equipment described in this manual generates and may radiate radio-frequency energy. If it is not installed in accordance with NetScreen's installation instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in part 15 of the FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Consult the dealer or an experienced radio/TV technician for help. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

Caution: Changes or modifications to this product could void the user's warranty and authority to operate this device.

## Disclaimer

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR JUNIPER NETWORKS REPRESENTATIVE FOR A COPY.

*Configuring DSMs*  
Release 2008.3

Copyright © 2008, Juniper Networks, Inc.

All rights reserved. Printed in USA.

Revision History

January 2009—Revision 1

The information in this document is current as of the date listed in the revision history.

# CONTENTS

---

## ABOUT THIS GUIDE

Audience	1
Conventions	1
Technical Documentation	1
Contacting Customer Support	2

---

## 1 OVERVIEW

About the Interface	3
Accessing the Administration Console	4
Using the Interface	4
Deploying Changes	5

---

## 2 MANAGING USERS

Managing Roles	7
Viewing Roles	7
Creating a Role	8
Editing a Role	11
Deleting a Role	11
Managing User Accounts	11
Creating a User Account	12
Editing a User Account	13
Disabling a User Account	14
Authenticating Users	15

---

## 3 MANAGING THE SYSTEM

Managing Your License Keys	19
Updating your License Key	19
Exporting Your License Key Information	21
Accessing the Embedded SNMP Agent	21
Configuring Access Settings	22
Configuring Firewall Access	22
Updating Your Host Set-up	24
Configuring Interface Roles	25
Changing Passwords	26
Updating System Time	27

---

## 4 SETTING UP STRM-LM

Creating Your Network Hierarchy	31
Considerations	31
Defining Your Network Hierarchy	32
Scheduling Automatic Updates	35
Configuring System Settings	36
Configuring System Notifications	40
Configuring the Console Settings	43
Starting and Stopping STRM-LM	46

---

## 5 MANAGING BACKUP AND RECOVERY

Managing Backup Archives	47
Viewing Back Up Archives	47
Importing an Archive	48
Deleting a Backup Archive	49
Backing Up Your Information	50
Scheduling Your Backup	50
Initiating a Backup	51
Restoring Your Configuration Information	52

---

## 6 USING THE DEPLOYMENT EDITOR

About the Deployment Editor	56
Accessing the Deployment Editor	57
Using the Editor	57
Creating Your Deployment	59
Before you Begin	59
Editing Deployment Editor Preferences	60
Building Your Event View	60
Adding Components	61
Connecting Components	62
Forwarding Normalized Events	63
Renaming Components	65
Managing Your System View	65
Setting Up Managed Hosts	66
Using NAT with STRM-LM	70
Configuring a Managed Host	74
Assigning a Component to a Host	74
Configuring Host Context	75
Configuring STRM-LM Components	78
Configuring an Event Collector	78
Configuring an Event Processor	79

---

## 7 FORWARDING SYSLOG DATA

Adding a Syslog Destination	81
Editing a Syslog Destination	82
Delete a Syslog Destination	83

---

**A JUNIPER NETWORKS MIB**

---

**B VIEWING AUDIT LOGS**

Logged Actions 97

Viewing the Log File 100

---

**INDEX**



# ABOUT THIS GUIDE

The *STRM-LM Administration Guide* provides you with information for managing STRM-LM functionality requiring administrative access.

---

## Audience




This guide is intended for the system administrator responsible for setting up STRM-LM in your network. This guide assumes that you have STRM-LM administrative access and a knowledge of your corporate network and networking technologies.

---

## Conventions

[Table 1](#) lists conventions that are used throughout this guide.

**Table 1** Icons

Icon	Type	Description
	Information note	Information that describes important features or instructions.
	Caution	Information that alerts you to potential loss of data or potential damage to an application, system, device, or network.
	Warning	Information that alerts you to potential personal injury.

---

## Technical Documentation

You can access technical documentation, technical notes, and release notes directly from the Juniper Customer Support web site at <https://www.juniper.net/support>. Once you access the Technical support web site, locate the product and software release for which you require documentation.

Your comments are important to us. Please send your e-mail comments about this guide or any of the Juniper Networks documentation to:

[techpubs-comments@juniper.net](mailto:techpubs-comments@juniper.net).

Include the following information with your comments:

- Document title
- Page number

---

**Contacting  
Customer Support**

To help you resolve any issues that you may encounter when installing or maintaining STRM-LM, you can contact Customer Support as follows:

- Open a support case using the Case Management link at <http://www.juniper.net/support>
- Call 1-888-314-JTAC (from the United States, Canada, or Mexico) or 1-408-745-9500 (from elsewhere).

# 1

## OVERVIEW

This chapter provides an overview of the STRM-LM Administration Console and STRM-LM administrative functionality including:

- [About the Interface](#)
- [Accessing the Administration Console](#)
- [Using the Interface](#)
- [Deploying Changes](#)

---

### About the Interface

You must have administrative privileges to access the Administration Console. The STRM-LM Administration Console provides access to following administrative functionality:

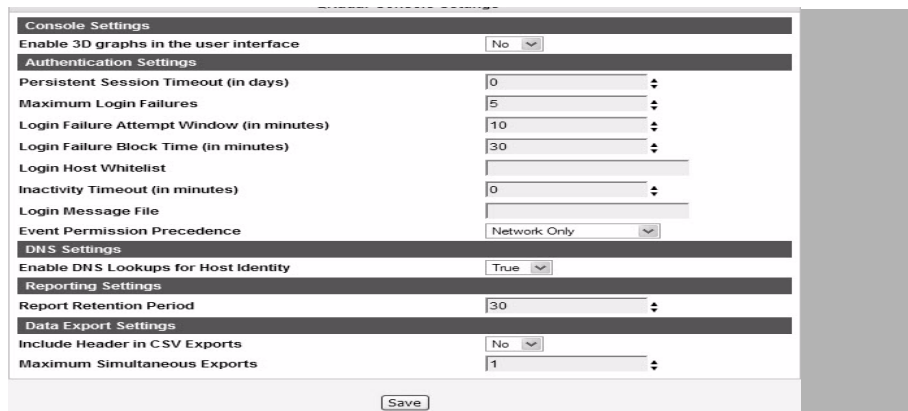
- Manage users. See [Chapter 2 Managing Users](#).
- Manage your network settings. See [Chapter 3 Managing the System](#).
- Manage STRM-LM. See [Chapter 4 Setting Up STRM-LM](#).
- Backup and recover your data. See [Chapter 5 Managing Backup and Recovery](#).
- Manage your deployment views. See [Chapter 6 Using the Deployment Editor](#).
- Configure syslog forwarding. See [Chapter 7 Forwarding Syslog Data](#).

All configuration updates using the Administration Console are saved to a staging area. Once all changes are complete, you can deploy the configuration changes or all configuration settings to the remainder of your deployment.

## Accessing the Administration Console

You can access the STRM-LM Administration Console through the main STRM-LM interface. Also, you can create a shortcut on your desktop that allows you to access the Administration Console directly.

To access the Administration Console, click **Config** in the main STRM-LM interface. The Administration Console appears.



## Using the Interface

The Administration Console provides several tab and menu options that allow you to configure STRM-LM including:

- **System Configuration** - Provides access to administrative functionality, such as, user management, automatic updates, license key, network hierarchy, system settings, system thresholds, backup and recovery, and Console configuration.
- **SIM Configuration** - Provides access to sensor device management and syslog forwarding.

The Administration Console also includes several menu options including:

**Table 1-1** Administrative Console Menu Options



Menu Option	Sub-Menu	Description
File	Close	Closes the Administration Console.
Configurations	Deployment Editor	Opens the deployment editor interface.

**Table 1-1** Administrative Console Menu Options (continued)

Menu Option	Sub-Menu	Description
	Deploy Configuration Changes	Deploys any configuration changes from the current session to your deployment.
	Deploy All	Deploys all configuration settings to your deployment.
System	System Start	Starts the STRM-LM application.
	System Stop	Stops the STRM-LM application.
	System Restart	Restarts the STRM-LM application.
Help	Help and Support	Opens user documentation.
	About STRM	Displays version information.

The Administration Console provides several toolbar options including:

**Table 1-2** Administration Console Toolbar Options

Icon	Description
 Edit	Opens the deployment editor interface.
	Deploys all changes made through the Administration Console.

## Deploying Changes

Once you update your configuration settings using the Administration Console, you must save those changes to the staging area. You must either manually deploy all changes using the Deploy menu option or, upon exit, a window appears prompting you to deploy changes before you exit. All deployed changes are then enforced throughout your deployment.

Using the Administration Console menu, you can deploy changes as follows:

- **Deploy All** - Deploys all configuration settings to your deployment.
- **Deploy Configuration Changes** - Deploys any configuration changes from the current session to your deployment



# 2

## MANAGING USERS

You can add or remove user accounts for all users that you want to access STRM-LM. Each user is associated with a role, which determines the privileges the user has to functionality and information within STRM-LM. You can also restrict or allow access to areas of the network.

This chapter provides information on managing STRM-LM users including:

- [Managing Roles](#)
- [Managing User Accounts](#)
- [Authenticating Users](#)

---

### Managing Roles

You must create a role before you can create user accounts. By default, STRM-LM provides a default administrative role, which provides access to all areas of STRM-LM. A user that is assigned administrative privileges (including the default administrative role) cannot edit their own account. Another administrative user must make any desired changes.

Using the Administration Console, you can:

- View Roles. See [Viewing Roles](#).
- Create a role. See [Creating a Role](#).
- Edit a role. See [Editing a Role](#).
- Delete a user role. See [Deleting a Role](#).

### Viewing Roles

To view roles:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **User Roles** icon.

The Manage Roles window appears.

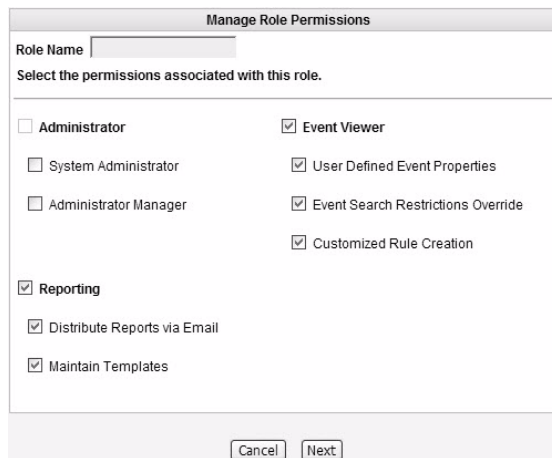
The Manage Roles window provides the following information:

**Table 2-1** Manage Roles Parameters

Parameter	Description
Role	Specifies the defined user role.
Devices	<p>Specifies the devices you want this role to access. This allows you to restrict or grant access for users assigned to the role to view logs, events, and offense data received from assigned security and network devices or device groups.</p> <p>For non-administrative users, this column indicates a link that allows an administrative user to edit the permissions for the role. For more information on editing a user role, see <a href="#">Editing a Role</a>.</p> <p>To view the list of devices that have been assigned to this role, move your mouse over the text in the Devices column.</p>
Associated Users	Specifies the users associated with this role.
Action	Allows you to edit or delete the user role.

**Creating a Role** To create a role:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **User Roles** icon.  
The Manage User Roles window appears.
- Step 3** Click **Create Role**.  
The Manage Role Permissions window appears.



- Step 4** Enter values for the parameters. You must select at least one permission to proceed.

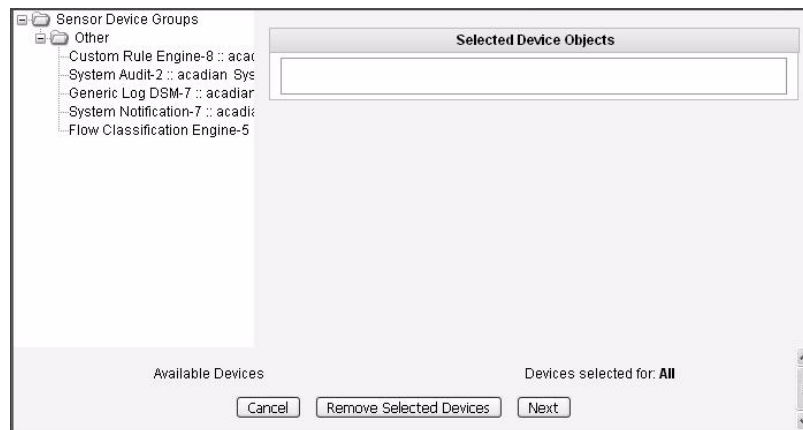
**Table 2-1** Create Roles Parameters

Parameter	Description
Role Name	Specify the name of the role. The name can be up to 15 characters in length and must only contain integers and letters.
Administrator	<p>Select the check box if you want to grant this user administrative access to the STRM-LM interface. Within the administrator role, you can grant additional access to the following:</p> <ul style="list-style-type: none"> <li>• <b>System Administrator</b> - Select this check box if you want to allow users access to all areas of STRM-LM. Also users with this access are not able to edit other administrator accounts.</li> <li>• <b>Administrator Manager</b> - Select this check box if you want to allow users the ability to create and edit other administrative user accounts. If you select this check box, the System Administrator check box is automatically selected.</li> </ul>
Event Viewer	<p>Select the check box if you want this user to have access to the Event Viewer. Within the Event Viewer, you can also grant users additional access to the following:</p> <ul style="list-style-type: none"> <li>• <b>User Defined Event Properties</b> - Select the check box if you want to allow users the ability to create user-defined event properties.</li> <li>• <b>Event Search Restrictions Override</b> - Select the check box if you want to allow users the ability to override event search restrictions.</li> <li>• <b>Customized Rule Creation functionality</b> - Select the check box if you want to allow users to create rules using the Event Viewer.</li> </ul> <p>For more information on the Event Viewer, see the <i>STRM-LM Users Guide</i>.</p>
Reporting	<p>Select the check box if you want to grant this user access to Reporting functionality. Within the Reporting functionality, you can grant users additional access to the following:</p> <ul style="list-style-type: none"> <li>• <b>Distribute Reports via Email</b> - Select the check box if you want to allow users to distribute reports through e-mail.</li> <li>• <b>Maintain Templates</b> - Select the check box if you want to allow users to maintain reporting templates.</li> </ul> <p>For more information, see the <i>STRM-LM Users Guide</i>.</p>

**Step 5** Choose one of the following options:

- a If you selected a role to include Event Viewer permissions role, go to [Step 6](#).
- b If you selected a role that does *not* include Event Viewer permissions, go to [Step 9](#).

The Select Device Objects window appears.



**Step 6** From the left panel, click a device or device group that you want users assigned to this role to have access.

The selected device moves to the Selected Device Objects field.

**Step 7** Repeat for all devices.

**Step 8** Click **Next**.

**Step 9** Click **Return**.

**Step 10** Close the Manage Roles window.

The STRM-LM Administration Console appears.

**Step 11** From the menu, select **Configurations > Deploy Configuration Changes**.

**Editing a Role** To edit a role:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **User Roles** icon.

The Manage Role window appears.

**Step 3** For the role you want to edit, click the edit icon.

The Permissions for Role window appears.

**Step 4** Update the permissions (see [Table 2-1](#)), as necessary.

**Step 5** Click **Return**.

**Step 6** Click **Save**.

**Step 7** Close the Manage User Roles window.

The STRM-LM Administration Console appears.

**Step 8** From the menu, select **Configurations > Deploy Configuration Changes**.

**Deleting a Role** To delete a role:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **User Roles** icon.  
The Manage Role window appears.
- Step 3** For the role you want to delete, click the delete icon.  
A confirmation window appears.
- Step 4** Click **Ok**.
- Step 5** From the menu, select **Configurations > Deploy Configuration Changes**.

**Managing User Accounts**

You can create a STRM-LM user account, which allows a user access to selected network components using the STRM-LM interface. You can also create multiple accounts for your system that include administrative privileges. Only the main administrative account can create accounts that have administrative privileges.

You can create and edit user accounts to access STRM-LM including:

- [Creating a User Account](#)
- [Editing a User Account](#)
- [Disabling a User Account](#)

**Creating a User Account**

To create an account for a STRM-LM user:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Users** icon.  
The Manage Users window appears.
- Step 3** In the Manage Users area, click **Add**.  
The User Details window appears.

The screenshot shows a 'User Details' form with the following fields and controls:

- Username:** A text input field.
- Password:** A text input field.
- Confirm password:** A text input field.
- Email Address:** A text input field.
- Select Role:** A dropdown menu with a downward arrow.
- Buttons:** 'Cancel' and 'Next' buttons at the bottom right.

- Step 4** Enter values for the following parameters:

**Table 2-2** User Details Parameters

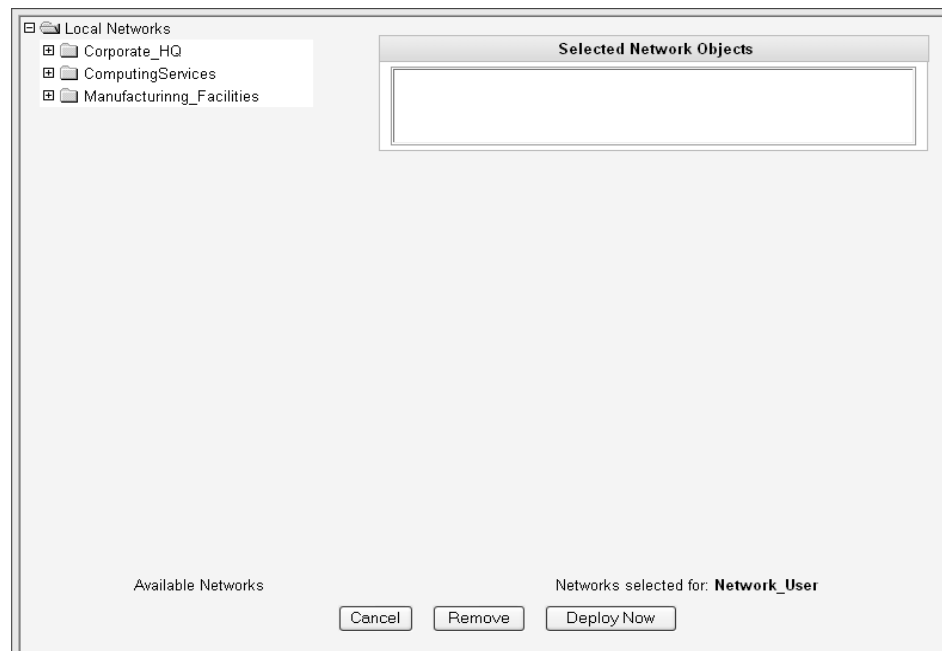
Parameter	Description
Username	Specify a username for the new user. The username must not include spaces or special characters.
Password	Specify a password for the user to gain access. The password must be at least five characters in length.
Confirm Password	Re-enter the password for confirmation.
Email Address	Specify the user's e-mail address.
Role	Using the drop-down list box, select the role you want this user to assume. For information on roles, see <a href="#">Managing Roles</a> . If you select <b>Admin</b> , this process is complete.

**Step 5** Click **Next**.

**Step 6** Choose one of the following options:

- a If you selected Admin as the user role, go to [Step 9](#).
- b If you selected a non-administrative user role, go to [Step 7](#).

The Selected Network Objects window appears.



**Step 7** From the menu tree, select the network objects you want this user to be able to monitor.

The selected network objects appear in the Selected Network Object panel.

**Step 8** Choose one of the following options:

- a Click **Deploy Now** to deploy new user information immediately.

b Click **Cancel** to cancel all updates and return to the Manage Users window.

**Step 9** Close the Manage Users window.

The STRM-LM Administration Console appears.

#### **Editing a User Account** To edit a user account:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **Users** icon.

The Manage Users window appears.

**Step 3** In the Manage Users area, click the user account you want to edit.

The User Details window appears.

**Step 4** Update values (see [Table 2-2](#)), as necessary.

**Step 5** Click **Next**.

If you are editing a non-administrative user account, the Selected Network Objects window appears. If you are editing an administrative user account, go to [Step 9](#).

**Step 6** From the menu tree, select the network objects you want this user to access.

The selected network objects appear in the Selected Network Object panel.

**Step 7** For all network objects you want to remove access, select the object from the Selected Network Objects panel and click **Remove**.

**Step 8** Choose one of the following options:

a Click **Deploy Now** to deploy new user information immediately.

b Click **Cancel** to return to cancel all updates and return to the Manage Users window.

**Step 9** Close the Manage Users window.

The STRM-LM Administration Console appears.

#### **Disabling a User Account** To disable a user account:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **Users** icon.

The Manage Users window appears.

**Step 3** In the Manage Users area, click the user account you want to disable.

The User Details window appears.

**Step 4** In the Role drop-down list box, select **Disabled**.

**Step 5** Click **Next**.

**Step 6** Close the Manage Users window.

The STRM-LM Administration Console appears. This user no longer has access to the STRM-LM interface. If this user attempts to log in to STRM-LM, the following message appears: **This account has been disabled.**

---

## Authenticating Users

You can configure authentication to validate STRM-LM users and passwords. STRM-LM supports the following user authentication types:

- **System Authentication** - Users are authenticated locally by STRM-LM. This is the default authentication type.
- **RADIUS Authentication** - Users are authenticated by a Remote Authentication Dial-in User Service (RADIUS) server. When a user attempts to login, STRM-LM encrypts the password only, and forwards the username and password to the RADIUS server for authentication.
- **TACACS Authentication** - Users are authenticated by a Terminal Access Controller Access Control System (TACACS) server. When a user attempts to login, STRM-LM encrypts the username and password, and forwards this information to the TACACS server for authentication.
- **LDAP/ Active Directory** - Users are authenticated by a Lightweight Directory access Protocol) server using Kerberos.

If you want to configure RADIUS, TACACS, or LDAP/Active Directory as the authentication type, you must:

- Configure the authentication server before you configure authentication in STRM-LM.
- Make sure the server has the appropriate user accounts and privilege levels to communicate with STRM-LM. See your server documentation for more information.
- Make sure the time of the authentication server is synchronized with the time of the STRM-LM server. For more information on setting STRM-LM time, see [Chapter 4 Setting Up STRM-LM](#).
- Make sure all users have appropriate user accounts and roles in STRM-LM to allow authentication with the third-party servers.

Once authentication is configured and a user enters an invalid username and password combination, a message appears indicating the login was invalid. If the user attempts to access the system multiple times using invalid information, the user must wait the configured amount of time before attempting to access the system again. For more information on configuring system settings for authentication, see [Chapter 4 - Configuring the Console Settings](#). An administrative user can always access STRM-LM through a third-party authentication module or by using the local STRM-LM Admin password

To configure authentication:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **Authentication** icon.

The Authentication window appears.

**Step 3** From the Authentication Module drop-down list box, select the authentication type you want to configure.

**Step 4** Configure the selected authentication type:

- a If you selected **System Authentication**, go to [Step 5](#)
- b If you selected **RADIUS Authentication**, enter values for the following parameters:

**Table 2-3** RADIUS Parameters

Parameter	Description
RADIUS Server	Specify the hostname or IP address of the RADIUS server.
RADIUS Port	Specify the port of the RADIUS server.
Authentication Type	Specify the type of authentication you want to perform. The options are: <ul style="list-style-type: none"> <li>• <b>CHAP</b> (Challenge Handshake Authentication Protocol) - Establishes a Point-to-Point Protocol (PPP) connection between the user and the server.</li> <li>• <b>MSCHAP</b> (Microsoft Challenge Handshake Authentication Protocol) - Authenticates remote Windows workstations.</li> <li>• <b>ARAP</b> (Apple Remote Access Protocol) - Establishes authentication for AppleTalk network traffic.</li> <li>• <b>PAP</b> (Password Authentication Protocol) - Sends clear text between the user and the server.</li> </ul>
Shared Secret	Specify the shared secret that STRM-LM uses to encrypt RADIUS passwords for transmission to the RADIUS server.

- c If you selected **TACACS Authentication**, enter values for the following parameters:

**Table 2-4** TACACS Parameters

Parameter	Description
TACACS Server	Specify the hostname or IP address of the TACACS server.
TACACS Port	Specify the port of the TACACS server.

**Table 2-4** TACACS Parameters (continued)

Parameter	Description
Authentication Type	Specify the type of authentication you want to perform. The options are: <ul style="list-style-type: none"> <li>• <b>ASCII</b></li> <li>• <b>PAP</b> (Password Authentication Protocol) - Sends clear text between the user and the server.</li> <li>• <b>CHAP</b> (Challenge Handshake Authentication Protocol) - Establishes a PPP connection between the user and the server.</li> <li>• <b>MSCHAP</b> (Microsoft Challenge Handshake Authentication Protocol) - Authenticates remote Windows workstations.</li> <li>• <b>MSCHAP2</b> - (Microsoft Challenge Handshake Authentication Protocol version 2)- Authenticates remote Windows workstations using mutual authentication.</li> <li>• <b>EAPMD5</b> (Extensible Authentication Protocol using MD5 Protocol) - Uses MD5 to establish a PPP connection.</li> </ul>
Shared Secret	Specify the shared secret that STRM-LM uses to encrypt TACACS passwords for transmission to the TACACS server.

- d If you selected **LDAP/ Active Directory**, enter values for the following parameters:

**Table 2-5** LDAP/ Active Directory Parameters

Parameter	Description
Server URL	Specify the URL used to connect to the LDAP server. For example, ldap://<host>:<port>
LDAP Context	Specify the LDAP context you want to use, for example, DC=Q1LABS,DC=INC.
LDAP Domain	Specify the domain you want to use, for example q1labs.inc

**Step 5** Click **Save**.



# 3

## MANAGING THE SYSTEM

This chapter provides information for managing your system including:

- [Managing Your License Keys](#)
- [Accessing the Embedded SNMP Agent](#)
- [Configuring Access Settings](#)

---

### Managing Your License Keys

For your STRM-LM Console, a default license key provides you access to the interface for 5 weeks. You must manage your license key using the System Management window in the Administration Console. This interface provides the status of the license key for each system (host) in your deployment including:

- **Valid** - The license key is valid.
- **Expired** - The license key has expired. To update your license key, see [Updating your License Key](#).
- **Override Console License** - This host is using the Console license key. You can use the Console key or apply a license key for this system. If you want to use the Console license for any system in your deployment, click **Default License** in the Manage License window. The license for that system will default to the Console license key.

This section provides information on managing your license keys including:

- [Updating your License Key](#)
- [Exporting Your License Key Information](#)

### Updating your License Key

For your STRM-LM Console, a default license key provides you access to the interface for 5 weeks. Choose one of the following options for assistance with your license key:

- For a new or updated license key, please contact your local sales representative.
- For all other technical issues, please contact Juniper Networks Customer Support.

If you log in to STRM-LM and your Console license key has expired, you are automatically directed to the System Management window. You must update the

license key before you can continue. However, if one of your non-Console systems includes an expired license key, a message appears when you log in indicating a system requires a new license key. You must navigate to the System Management window to update that license key.

To update your license key:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **System Management** icon.

The System Management window appears providing a list of all hosts in your deployment.

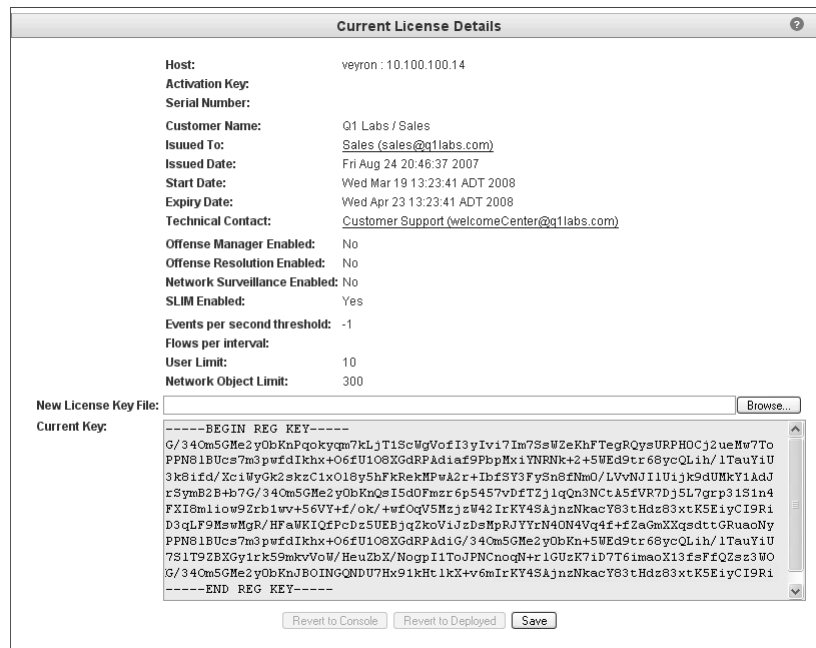
**Step 3** For the host that on which you want to update the license key, click the value that appears in the License column.



**Note:** If you update the license key for your Console, all systems in your deployment default to the Console license key at that time.

The Current License Details window appears.

**Step 4** Click **Browse** beside the New License Key File and locate the license key.



**Step 5** Once you locate and select the license key, click **Open**.

The Current License Details window appears.

**Step 6** Click **Save**.

A message appears indicating the license key was successfully updated.



**Note:** If you want to revert back to the previous license key, click **Revert to Deployed**. If you revert to the license key used by the STRM-LM Console system, click **Revert to Console**.

**Step 7** Close the license key window.

The Administration Console appears.

**Step 8** From the menu, select **Configurations > Deploy All**.

The license key information is updated in your deployment.

**Exporting Your License Key Information**

To export your license key information for all systems in your deployment:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **System Management** icon.

The System Management window appears providing a list of all hosts in your deployment.

System Management				
				Export Licenses ?
Host Name	View Agent	Manage System	License	Serial Number
veyron (console)	<a href="#">View Agent</a>	<a href="#">Manage System</a>	Valid	

**Step 3** Click **Export Licenses**.

The export window appears.

**Step 4** Select one of the following options:

- **Open** - Opens the license key data in an Excel spreadsheet.
- **Save** - Allows you to save the file to your desktop.

**Step 5** Click **OK**.

**Accessing the Embedded SNMP Agent**

To access the SNMP agent:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **System Management** icon.

The System Management window appears.

System Management <span style="float: right;">Export Licenses ?</span>				
Host Name	View Agent	Manage System	License	Serial Number
veyron (console)	<a href="#">View Agent</a>	<a href="#">Manage System</a>	Valid	

**Step 3** In the View Agent column, click **View Agent** for the SNMP agent you want to access.

The SNMP Agent appears.

## Configuring Access Settings

The System Configuration tab provides access the web-based system administration interface, which allows you to configure firewall rules, interface roles, passwords, and system time. This section includes:

- Firewall access. See [Configuring Firewall Access](#).
- Update your host set-up. See [Updating Your Host Set-up](#).
- Configure the interface roles for a host. See [Configuring Interface Roles](#).
- Change password to a host. See [Changing Passwords](#).
- Update the system time. See [Updating System Time](#).

## Configuring Firewall Access

You can configure local firewall access to enable communications between devices and STRM-LM. Also, you can define access to the web-based system administration interface.

To enable STRM-LM managed hosts to access specific devices or interfaces:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **System Management** icon.

The System Management window appears.

**Step 3** For the host you want to configure firewall access, click **Manage System**.

**Step 4** Log-in to the System Administration interface. The default is:

Username: **root**

Password: **<your root password>**



**Note:** *The username and password are case sensitive.*

**Step 5** From the menu, select **Managed Host Config > Local Firewall**.

The Local Firewall window appears.

Local Firewall

**Device Access**

Enter the IP addresses of the systems that should be allowed to connect to this device below, along with the ports they require access to.

If the list is empty, all device access will be disabled.

IP Address:  Protocol: Any  Port:

**System Administration Web Control**

Enter the IP addresses that should be allowed to connect to this administration interface below.

If the list is empty, access controls will be disabled.

IP Address:

**Step 6** In the Device Access box, you must include any STRM-LM systems you want to have access to this managed host. Only managed hosts listed will have access. For example, if you enter one IP address, only that one IP address will be granted access to the managed host. All other managed hosts are blocked.

To configure access:

- a In the IP Address field, enter the IP address of the managed host you want to have access.
- b From the Protocol list box, select the protocol you want to enable access for the specified IP address and port:
  - **UDP** - Allows UDP traffic.
  - **TCP** - Allows TCP traffic.
  - **Any** - Allows any traffic.
- c In the Port field, enter the port on which you want to enable communications.



**Note:** If you change your External Flow Source Monitoring Port parameter in the QFlow Configuration, you must also update your firewall access configuration.

- d Click **Allow**.

**Step 7** In the System Administration Web Control box, enter the IP address of managed hosts that you want to allow access to the web-based system administration interface in the IP Address field. Only IP addresses listed will have access to the interface. If you leave the field blank, all IP addresses will have access. Click **Allow**.



**Note:** Make sure you include the IP address of your client desktop you want to access the interface. Failing to do so may affect connectivity.

**Step 8** Click **Apply Access Controls**.

**Step 9** Wait for the interface to refresh before continuing.

**Updating Your Host Set-up**

You can use the web-based system administration interface to configure the mail server you want STRM-LM to use, the global password for STRM-LM configuration, and the IP address for the STRM-LM Console:

To configure your host set-up:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **System Management** icon.

The System Management window appears.

**Step 3** For the host you want to update your host set-up, click **Manage System**.

**Step 4** Log-in to the System Administration interface. The default is:

Username: **root**

Password: **<your root password>**



**Note:** *The username and password are case sensitive.*

**Step 5** From the menu, select **Managed Host Config > STRM-LM Setup**.

The STRM-LM Setup window appears.

**Step 6** You must enable communications between the STRM-LM Console and the current host. In the **Enter the IP address of the STRM-LM console** field, enter the IP address of the managed host operating the STRM-LM Console.

**Step 7** In the **Mail Server** field, specify the address for the mail server you want STRM-LM to use. STRM-LM uses this mail server to distribute alerts and event messages. To use the mail server provided with STRM-LM, enter **localhost**.

**Step 8** In the **Enter the global configuration password**, enter the password you want to use to access the host. Confirm the entered password.



**Note:** The global configuration password must be the same throughout your deployment. If you edit this password, you must also edit the global configuration password on all systems in your deployment.

**Step 9** In the **Enter the web address of the console** field, enter the IP address of the managed host operating the STRM-LM Console.

**Step 10** Click **Apply Configuration**.

**Configuring Interface Roles** You can assign specific roles to the network interfaces on each managed host.

To assign roles:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **System Management** icon.

The System Management window appears.

**Step 3** For the host you want to configure interface roles, click **Manage System**.

**Step 4** Log-in to the System Administration interface. The default is:

Username: **root**

Password: **<your root password>**



**Note:** The username and password are case sensitive.

**Step 5** From the menu, select **Managed Host Config > Network Interfaces**.

The Network Interfaces window appears with a list of each interface on your managed host.



**Note:** For assistance with determining the appropriate role for each interface, please contact Juniper Networks Customer Support.

**Network Interfaces**

The following network interfaces are installed on this system. Select a role for each interface below. If an interface is to be used as a network interface (eg, for NetFlow™), then address information will be required.

Device	Description	Role
eth0	PCI device 8086:1076 (Intel Corp.) (rev 5) IP Address: 10.100.100.25 Netmask: 255.255.255.0 Gateway: 10.100.100.1	Management
eth1	PCI device 8086:1076 (Intel Corp.) (rev 5)	Disabled <input type="button" value="v"/>

- Step 6** For each interface listed, select the role you want to assign to the interface using the Role list box.
- Step 7** Click **Save Configuration**.
- Step 8** Wait for the interface to refresh before continuing.

**Changing Passwords** To change the passwords:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **System Management** icon.  
The System Management window appears.
- Step 3** For the host you want to change passwords, click **Manage System**.
- Step 4** Log-in to the System Administration interface. The default is:  
Username: **root**

Password: **<your root password>**



**Note:** *The username and password are case sensitive.*

- Step 5** From the menu, select **Managed Host Config > Root Password**.  
The Root Passwords window appears.

- Step 6** Update the passwords and confirm:



**Note:** *Make sure you record the entered values.*

- **New Root Password** - Specify the root password necessary to access the web-based system administration interface.
- **Confirm New Root Password** - Re-enter the password for confirmation.

- Step 7** Click **Update Password**.

## Updating System Time

You are able to change the time for the following options:

- System time
- Hardware time
- Time Zone
- Time Server



**Note:** All system time changes must be made within the System Time window. You must change the system time information on the host operating the Console only. The change is then distributed to all managed hosts in your deployment.

You can configure time for your system using one of the following methods:

- [Configuring Your Time Server Using RDATE](#)
- [Configuring Time Settings For Your System](#)

### Configuring Your Time Server Using RDATE

To update the time settings using RDATE:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **System Management** icon.  
The System Management window appears.
- Step 3** For the host on which you want to configure time, click **Manage System**.
- Step 4** Log-in to the System Administration interface. The default is:  
Username: **root**



Password: **<your root password>**

**Note:** The username and password are case sensitive.

- Step 5** From the menu, select **Managed Host Config > System Time**.  
The System Time window appears.



**Caution:** The time settings window is divided into four sections. You must save each setting before continuing. For example, when you configure System Time, you must click Apply within the System Time section before continuing.

The screenshot shows a configuration window with four main sections:

- System Time:** Fields for Day (Friday), Date (7), Month (March), Year (2008), and Hour (11:33:11). An 'Apply' button is present with the label 'Set system time to hardware time'.
- Hardware Time:** Identical fields to System Time. A 'Save' button is present with the label 'Set hardware time to system time'.
- Time Zone:** A dropdown menu showing 'America/Halifax (Atlantic Time - Nova Scotia (most places), PEI)'. A 'Save' button is below.
- Time Server:**
  - Text input for 'Timeserver hostnames or addresses' containing 'boxster'.
  - Checked checkbox for 'Set hardware time too'.
  - Radio buttons for 'Synchronize on schedule?': 'No' is selected, 'Yes, at times below ..' is unselected.
  - Radio buttons for 'Simple schedule ..': 'Hourly' is selected, 'Times and dates selected below ..' is unselected.
  - Five columns of selection lists: Minutes, Hours, Days, Months, and Weekdays. Each column has 'All' and 'Selected ..' radio buttons. The 'Selected ..' lists show various numerical options.
  - Bottom note: 'Note: Ctrl-click (or command-click on the Mac) to select and de-select minutes, hours, days and months.'
  - 'Sync and Apply' button at the bottom.

**Step 6** In the Time Zone box, select the time zone in which this managed host is located using the Change timezone to list box. Click **Save**.

**Step 7** In the Time Server box, you must specify the following options:

- **Timeserver hostnames or addresses** - Specify the time server hostname or IP address.
- **Set hardware time too** - Select the check box if you want to set the hardware time as well.
- **Synchronize on schedule?** - Specify one of the following options:
  - **No** - Select the option if you do not want to synchronize the time specified in the Run at selected time below options. Go to [Step 8](#).
  - **Yes** - Select the option if you want to synchronize the time. See options below.
- **Simple Schedule** - Specify if you want the time update to occur at a specific time. If not, select the Run at times selected below option.
- **Times and dates are selected below** - Specify the time you want the time update to occur.

**Step 8** Click **Sync and Apply**.

### Configuring Time Settings For Your System

To update the time settings for your system:

- Step 1** From the System View, use the right mouse button (right-click) on the managed host you want to update the time settings and select **Config Management**.

The web-based system administration interface login appears.

- Step 2** Log-in to the System Administration interface. The default is:

Username: **root**

Password: **<your root password>**



**Note:** The username and password are case sensitive.

- Step 3** From the menu, select **Managed Host Config > System Time**.

The System Time window appears.



**Caution:** The time settings window is divided into four sections. You must save each setting before continuing. For example, when you configure System Time, you must click **Apply** within the System Time section before continuing.

**System Time**

Day	Date	Month	Year	Hour
Friday	7	March	2008	11 : 33 : 11

Apply    Set system time to hardware time

---

**Hardware Time**

Day	Date	Month	Year	Hour
Friday	7	March	2008	11 : 33 : 11

Save    Set hardware time to system time

---

**Time Zone**

Change timezone to: America/Halifax (Atlantic Time - Nova Scotia (most places), PEI)

Save

---

**Time Server**

Timeserver hostnames or addresses: boxster

Set hardware time too

Synchronize on schedule?  No  Yes, at times below ..

Simple schedule .. Hourly  Times and dates selected below ..

Minutes	Hours	Days	Months	Weekdays
<input type="radio"/> All <input checked="" type="radio"/> Selected .. 0 12 24 36 48 1 13 25 37 49 2 14 26 38 50 3 15 27 39 51 4 16 28 40 52 5 17 29 41 53 6 18 30 42 54 7 19 31 43 55 8 20 32 44 56 9 21 33 45 57 10 22 34 46 58 11 23 35 47 59	<input type="radio"/> All <input checked="" type="radio"/> Selected .. 0 12 1 13 2 14 3 15 4 16 5 17 6 18 7 19 8 20 9 21 10 22 11 23	<input type="radio"/> All <input checked="" type="radio"/> Selected .. 1 13 25 2 14 26 3 15 27 4 16 28 5 17 29 6 18 30 7 19 31 8 20 9 21 10 22 11 23 24	<input type="radio"/> All <input checked="" type="radio"/> Selected .. January February March April May June July August September October November December	<input type="radio"/> All <input checked="" type="radio"/> Selected .. Sunday Monday Tuesday Wednesday Thursday Friday Saturday

Note: Ctrl-click (or command-click on the Mac) to select and de-select minutes, hours, days and months.

Sync and Apply

- Step 4** In the Time Zone box, select the time zone in which this managed host is located using the Change timezone to list box. Click **Save**.
- Step 5** In the System Time box, you must specify the current date and time you want to assign to the managed host. Click **Apply**.
- If you want to set the System Time to the same as the Hardware time, click **Set system time to hardware time**.
- Step 6** In the Hardware Time box, you must specify the current date and time you want to assign to the managed host. Click **Save**.
- If you want to set the System Time to the same as the Hardware time, click **Set hardware time to system time**.

# 4

## SETTING UP STRM-LM

This chapter provides information on setting up STRM-LM including:

- [Creating Your Network Hierarchy](#)
- [Scheduling Automatic Updates](#)
- [Configuring System Settings](#)
- [Configuring System Notifications](#)
- [Configuring the Console Settings](#)
- [Starting and Stopping STRM-LM](#)

---

### Creating Your Network Hierarchy

STRM-LM uses the network hierarchy to understand your network traffic and provide you with the ability to view network activity for your entire deployment.

When you develop your network hierarchy, you should consider the most effective method for viewing network activity. Note that the network you configure in STRM-LM does not have to resemble the physical deployment of your network. STRM-LM supports any network hierarchy that can be defined by a range of IP addresses. You can create your network based on many different variables, including geographical or business units.

### Considerations

Consider the following when defining your network hierarchy:

- Group together systems and user groups that have similar behavior. This provides you with a clear view of your network.
- Do not group together servers that have unique behavior with other servers on your network. For example, placing a unique server alone provides the server greater visibility in STRM-LM allowing you to enact specific policies.
- Combine multiple Classless Inter-Domain Routings (CIDRs) or subnets into a single network/group to conserve disk space. For example:

Group	Description	IP Address
1	Marketing	10.10.5.0/24
2	Sales	10.10.8.0/21

Group	Description	IP Address
3	Database Cluster	10.10.1.3/32 10.10.1.4/32 10.10.1.5/32



**Note:** We recommend that you do not configure a network group with more than 15 objects. This may cause you difficulty in viewing detailed information for each group.

You may also want to define an all-encompassing group so when you define new networks, the appropriate policies and behavioral monitors are applied. For example:

Group	Subgroup	IP Address
Cleveland	Cleveland misc	10.10.0.0/16
Cleveland	Cleveland Sales	10.10.8.0/21
Cleveland	Cleveland Marketing	10.10.1.0/24

### Defining Your Network Hierarchy

To define your network hierarchy:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Network Hierarchy** icon.  
The Network Views window appears.
- Step 3** From the menu tree, select the areas of the network you want to add a network component.  
The Manage Group window appears for the selected network component.
- Step 4** Click **Add**.  
The Add Network Object window appears.
- Step 5** Enter your network object values:

**Table 4-1** Add New Object Parameters

Parameter	Action
Group	Specify the group for the new network object. Click <b>Add Group</b> to specify the group.
Name	Specify the name for the object.
Weight	Specify the weight of the object. The range is 0 to 100 and indicates the importance of the object in the system.
IP/CIDR(s)	Specify the CIDR range(s) for this object. For more information on CIDR values, see <a href="#">Accepted CIDR Values</a> .
Description	Specify a description for this network object.

**Table 4-1** Add New Object Parameters (continued)

Parameter	Action
Color	Specify a color for this object.
Database Length	Specify the database length.

**Step 6** Click **Save**.

**Step 7** Repeat for all network objects.

**Step 8** Click **Re-Order**.

The Reorder Group window appears.

**Step 9** Order the network objects in the desired order.

**Step 10** Click **Save**.



**Note:** We recommend adding key servers as individual objects and grouping other major but related servers into multi-CIDR objects.

**Accepted CIDR Values**

The following table provides a list of the CIDR values that STRM-LM accepts:

**Table 4-2** Accepted CIDR Values

CIDR Length	Mask	Number of Networks	Hosts
/1	128.0.0.0	128 A	2,147,483,392
/2	192.0.0.0	64 A	1,073,741,696
/3	224.0.0.0	32 A	536,870,848
/4	240.0.0.0	16 A	268,435,424
/5	248.0.0.0	8 A	134,217,712
/6	252.0.0.0	4 A	67,108,856
/7	254.0.0.0	2 A	33,554,428
/8	255.0.0.0	1 A	16,777,214
/9	255.128.0.0	128 B	8,388,352
/10	255.192.0.0	64 B	4,194,176
/11	255.224.0.0	32 B	2,097,088
/12	255.240.0.0	16 B	1,048,544
/13	255.248.0.0	8 B	524,272
/14	255.252.0.0	4 B	262,136
/15	255.254.0.0	2 B	131,068
/16	255.255.0.0	1 B	65,534
/17	255.255.128.0	128 C	32,512
/18	255.255.192.0	64 C	16,256
/19	255.255.224.0	32 C	8,128

**Table 4-2** Accepted CIDR Values (continued)

<b>CIDR Length</b>	<b>Mask</b>	<b>Number of Networks</b>	<b>Hosts</b>
/20	255.255.240.0	16 C	4,064
/21	255.255.248.0	8 C	2,032
/22	255.255.252.0	4 C	1,016
/23	255.255.254.0	2 C	508
/24	255.255.255.0	1 C	254
/25	255.255.255.128	2 subnets	124
/26	255.255.255.192	4 subnets	62
/27	255.255.255.224	8 subnets	30
/28	255.255.255.240	16 subnets	14
/29	255.255.255.248	32 subnets	6
/30	255.255.255.252	64 subnets	2
/31	255.255.255.254	none	none
/32	255.255.255.255	1/256 C	1

For example, a network is called a supernet when the prefix boundary contains fewer bits than the network's natural (such as, classful) mask. A network is called a subnet when the prefix boundary contains more bits than the network's natural mask:

- 209.60.128.0 is a class C network address with a natural mask of /24.
- 209.60.128.0 /22 is a supernet that yields:
  - 209.60.128.0 /24
  - 209.60.129.0 /24
  - 209.60.130.0 /24
  - 209.60.131.0 /24
- 192.0.0.0 /25
  - Subnet Host Range
  - 0 192.0.0.1-192.0.0.126
  - 1 192.0.0.129-192.0.0.254
- 192.0.0.0 /26
  - Subnet Host Range
  - 0 192.0.0.1 - 192.0.0.62
  - 1 192.0.0.65 - 192.0.0.126
  - 2 192.0.0.129 - 192.0.0.190
  - 3 192.0.0.193 - 192.0.0.254
- 192.0.0.0 /27

## Subnet Host Range

0 192.0.0.1 - 192.0.0.30  
 1 192.0.0.33 - 192.0.0.62  
 2 192.0.0.65 - 192.0.0.94  
 3 192.0.0.97 - 192.0.0.126  
 4 192.0.0.129 - 192.0.0.158  
 5 192.0.0.161 - 192.0.0.190  
 6 192.0.0.193 - 192.0.0.222  
 7 192.0.0.225 - 192.0.0.254

## Scheduling Automatic Updates

STRM-LM uses system configuration files to provide useful characterizations of network data flows. You can now update your configuration files automatically or manually using the STRM-LM interface to make sure your configuration files contain the latest network security information. The updates, located on the Juniper Customer Support web site, include threats, vulnerabilities, and geographic information from various security related web sites. The managed host must be connected to the Internet to receive the updates.



**Note:** We do not guarantee the accuracy of the third-party information contained on the above mentioned web sites.

STRM-LM allows you to either replace your existing configuration files or integrate the updates with your existing files to maintain the integrity of your current configuration and information.

You can also update the configuration files for all systems in your STRM-LM deployment. However, the views must currently exist in your deployment editor. For more information on using the deployment editor, see [Chapter 6 Using the Deployment Editor](#).



**Caution:** Failing to build your deployment map before you configure automatic or manual updates results in your remote systems not being updated.

To schedule automatic updates:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
 The System Configuration panel appears.
- Step 2** Click the **Auto Update** icon.  
 The Auto-Update Configuration window appears.

**Auto-Update Configuration**

**Schedule Autoupdates**

Scheduled QRadar Auto Updates will run at 1:00 AM based on frequency selected below

**Frequency** Daily ▾

- Daily: every day
- Weekly: every sunday
- Monthly: the first day of every month

- Step 3** In the Schedule Autoupdates section, select the check box to enable automatic updates.
- Step 4** In the Frequency list box, select the frequency of the updates:
- **Daily** - Updates are downloaded every day at 1 am.
  - **Weekly** - Updates are downloaded every Sunday at 1 am.
  - **Monthly** - Updates are downloaded on the first day of every month at 1 am.
- Step 5** Click **Save** to save your settings or click **Save and Update Now** to initiate the update process immediately.
- Step 6** From the menu, select **Configurations > Deploy Configuration Changes**.  
The updates are enforced through your deployment.



**Note:** STRM automatic updates are not enforced through your deployment automatically. After each automatic update, you must log in to STRM and from the Administration Console menu, select **Configurations > Deploy Configuration Changes**.

## Configuring System Settings

Using the Administration Console, you can configure the system, database, and sentry settings.

To configure system settings:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **System Settings** icon.  
The System Management window appears.
- Step 3** Enter values for the parameters:

**Table 4-3** System Settings Parameters

Parameter	Description
<b>System Settings</b>	
Administrative Email Address	Specify the e-mail address of the designated system administrator. The default is root@localhost.

**Table 4-3** System Settings Parameters (continued)

Parameter	Description
Alert Email From Address	Specify the e-mail address from which you want to receive e-mail alerts.
Delete Root Mail	Root mail is the default location for host context messages. Specify one of the following: <ul style="list-style-type: none"> <li>• <b>Yes</b> - Delete the local administrator e-mail. This is the default.</li> <li>• <b>No</b> - Do not delete local administrator e-mail.</li> </ul>
Temporary Files Retention Period	Specify the time period the system stores temporary files. The default is 6 hours.
Audit Log Enable	Enables or disables the ability to collect audit logs. You can view audit log information using the Event Viewer. The default is Yes.
Coalescing Events	Enables or disables the ability for a sensor device to coalesce (bundle) events. This value applies to all sensor devices. However, if you want to alter this value for a specific sensor device, edit the Coalescing Event parameter in the sensor device configuration. For more information, see the <i>Managing Sensor Devices Guide</i> . The default is Yes.
Store Event Payload	Enables or disables the ability for a sensor device to store event payload information. This value applies to all auto detected sensor devices. However, if you want to alter this value for a specific sensor device, edit the Event Payload parameter in the sensor device configuration. For more information, see the <i>Managing Sensor Devices Guide</i> . The default is Yes.
Global Iptables Access	Specify the IP address of a non-Console system that does not have IP tables configuration to which you want to enable direct access. To enter multiple systems, enter a comma-separated list of IP addresses.
<b>Database Settings</b>	
User Data Files	Specify the location of the user profiles. The default is /store/users.
Database Storage Location	Specify the location of the database files. The default location is /store/db.
<b>Ariel Database Settings</b>	
Device Log Storage Location	Specify the location that you want to store the device log information. The default location is /store/ariel/events.
Device Log Data Retention Period	Specify the amount of time that you want to store the device log data. The default is 30 days.
Maximum Real Time Results	Specify the maximum number of results you want to view in the Event Viewer and Flow Viewer. The default is 10,000.

**Table 4-3** System Settings Parameters (continued)

Parameter	Description
Reporting Max Matched Results	Specify the maximum number of results you want a report to return. This value applies to the search results in the Event Viewer. The default is 1,000,000.
Command Line Max Matched Results	Specify the maximum number of results you want the command line to return. The default is 0.
Web Execution Time Limit	Specify the maximum amount of time, in seconds, you want a query in the interface to process before a time-out occurs. This value applies to the search results in the Event Viewer and Flow Viewer. The default is 600 seconds.
Reporting Execution Time Limit	Specify the maximum amount of time, in seconds, you want a reporting query to process before a time-out occurs. The default is 57,600 seconds.
Command Line Execution Time Limit	Specify the maximum amount of time, in seconds, you want a query in the command line to process before a time-out occurs. The default is 0 seconds.
Event Log Hashing	Enables or disables the ability for STRM-LM to store a hash file for every stored event log file. The default is No.
Hashing Algorithm	<p>You can use a hashing algorithm for database storage and encryption. You can use one of the following hashing algorithms:</p> <ul style="list-style-type: none"> <li>• <b>Message-Digest Hash Algorithm</b> - Transforms digital signatures into shorter values called Message-Digests (MD).</li> <li>• <b>Secure Hash Algorithm (SHA) Hash Algorithm</b> - Standard algorithm that creates a larger (60 bit) MD.</li> </ul> <p>Specify the log hashing algorithm you want to use for your deployment. The options are:</p> <ul style="list-style-type: none"> <li>• <b>MD2</b> - Algorithm defined by RFC 1319.</li> <li>• <b>MD5</b> - Algorithm defined by RFC 1321.</li> <li>• <b>SHA-1</b> - Default. Algorithm defined by Secure Hash Standard (SHS), NIST FIPS 180-1.</li> <li>• <b>SHA-256</b> - Algorithm defined by the draft Federal Information Processing Standard 180-2, SHS. SHA-256 is a 256 bit hash algorithm intended for 128 bits of security against security attacks.</li> <li>• <b>SHA-384</b> - Algorithm defined by the draft Federal Information Processing Standard 180-2, SHS. SHA-384 is a bit hash algorithm is provided by truncating the SHA-512 output.</li> <li>• <b>SHA-512</b> - Algorithm defined by the draft Federal Information Processing Standard 180-2, SHS. SHA-512 is a bit hash algorithm intended to provide 256 bits of security.</li> </ul>

**Table 4-3** System Settings Parameters (continued)

Parameter	Description
<b>SNMP Settings</b>	
Enable	Enables or disables Simple Network Management Protocol (SNMP) responses in the STRM-LM custom rules engine. The default is No, which means you do not want to accept events using SNMP.
Destination Host	Specify the IP address to which you want to send SNMP notifications.
Destination Port	Specify the port to which you want to send SNMP notifications. The default is 162.
Community (V2)	Specify the SNMP community, such as public. This parameter only applies if you are using SNMPv2.
User Name	Specify the name of the user you want to access SNMP related properties.
Security Level	Specify the security level for SNMP. The options are: <ul style="list-style-type: none"> <li>• <b>NOAUTH_NOPRIV</b> - Indicates no authorization and no privacy. This the default.</li> <li>• <b>AUTH_NOPRIV</b> - Indicates authorization is permitted but no privacy.</li> <li>• <b>AUTH_PRIV</b> - Allows authorization and privacy.</li> </ul>
Authentication Protocol	Specify the algorithm you want to use to authenticate SNMP traps.
Authentication Password	Specify the password you want to use to authenticate SNMP.
Privacy Protocol	Specify the protocol you want to use to decrypt SNMP traps.
Privacy Password	Specify the password used to decrypt SNMP traps.
<b>Embedded SNMP Agent Settings</b>	
Enabled	Enables or disables access to data from the SNMP Agent using SNMP requests. The default is No.
Community String	Specify the SNMP community, such as public. This parameter only applies if you are using SNMPv2 and SNMPv3.
IP Access List	Specify the systems that can access data from the SNMP agent using SNMP request. If the Enabled option is set to Yes, this option is enforced.

**Step 4** Click **Save**.

The STRM-LM Administration Console appears.

**Step 5** From the menu, select **Configurations > Deploy All**.

## Configuring System Notifications

You can configure global system performance alerts for thresholds using the STRM-LM Administration Console. This section provides information for configuring your global system thresholds.

To configure global system thresholds:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Global System Notifications** icon.  
The Global System Notifications window appears.
- Step 3** Enter values for the parameters. For each parameter, you must select the following options:
- **Enabled** - Select the check box to enable the option.
  - **Respond if value is** - Specify one of the following options:
    - **Greater Than** - An alert occurs if the parameter value exceeds the configured value.
    - **Less Than** - An alert occurs if the parameter value is less than the configured value.
  - **Resolution Message** - Specify a description of the preferred resolution to the alert.

**Table 4-4** Global System Notifications Parameters

Parameter	Description
User CPU usage	Specify the threshold percentage of user CPU usage.
Nice CPU usage	Specify the threshold percentage of user CPU usage at the nice priority.
System CPU usage	Specify the threshold percentage of CPU usage while operating at the system level.
Idle CPU usage	Specify the threshold percentage of idle CPU time.
Percent idle time	Specify the threshold percentage of idle time.
Run queue length	Specify the threshold number of processes waiting for run time.
Number of processes in the process list	Specify the threshold number of processes in the process list.
System load over 1 minute	Specify the threshold system load average over the last minute.
System load over 5 minutes	Specify the threshold system load average over the last 5 minutes.
System load over 15 minutes	Specify the threshold system load average over the last 15 minutes.
Kilobytes of memory free	Specify the threshold amount, in kilobytes, of free memory.

**Table 4-4** Global System Notifications Parameters (continued)

<b>Parameter</b>	<b>Description</b>
Kilobytes of memory used	Specify the threshold amount, in kilobytes, of used memory. This does not consider memory used by the kernel.
Percentage of memory used	Specify the threshold percentage of used memory.
Kilobytes of cached swap memory	Specify the threshold amount of memory, in kilobytes, shared by the system.
Kilobytes of buffered memory	Specify the threshold amount of memory, in kilobytes, used as a buffer by the kernel.
Kilobytes of memory used for disc cache	Specify the threshold amount of memory, in kilobytes, used to cache data by the kernel.
Kilobytes of swap memory free	Specify the threshold amount of free memory, in kilobytes.
Kilobytes of swap memory used	Specify the threshold amount of free swap memory, in kilobytes.
Percentage of swap used	Specify the threshold percentage of used swap space.
Number of interrupts per second	Specify the threshold number of received interrupts per second.
Received packets per second	Specify the threshold number of packets received per second.
Transmitted packets per second	Specify the threshold number of packets transmitted per second.
Received bytes per second	Specify the threshold number of bytes received per second.
Transmitted bytes per second	Specify the threshold number of bytes transmitted per second.
Received compressed packets	Specify the threshold number of compressed packets received per second.
Transmitted compressed packets	Specify the threshold number of compressed packets transmitted per second.
Received multicast packets	Specify the threshold number of received Multicast packets per second.
Receive errors	Specify the threshold number of corrupt packets received per second.
Transmit errors	Specify the threshold number of corrupt packets transmitted per second.
Packet collisions	Specify the threshold number of collisions that occur per second while transmitting packets.
Dropped receive packets	Specify the threshold number of received packets that are dropped per second due to a lack of space in the buffers.

**Table 4-4** Global System Notifications Parameters (continued)

<b>Parameter</b>	<b>Description</b>
Kilobytes of memory used	Specify the threshold amount, in kilobytes, of used memory. This does not consider memory used by the kernel.
Percentage of memory used	Specify the threshold percentage of used memory.
Kilobytes of cached swap memory	Specify the threshold amount of memory, in kilobytes, shared by the system.
Kilobytes of buffered memory	Specify the threshold amount of memory, in kilobytes, used as a buffer by the kernel.
Kilobytes of memory used for disc cache	Specify the threshold amount of memory, in kilobytes, used to cache data by the kernel.
Kilobytes of swap memory free	Specify the threshold amount of free memory, in kilobytes.
Kilobytes of swap memory used	Specify the threshold amount of free swap memory, in kilobytes.
Percentage of swap used	Specify the threshold percentage of used swap space.
Number of interrupts per second	Specify the threshold number of received interrupts per second.
Received packets per second	Specify the threshold number of packets received per second.
Transmitted packets per second	Specify the threshold number of packets transmitted per second.
Received bytes per second	Specify the threshold number of bytes received per second.
Transmitted bytes per second	Specify the threshold number of bytes transmitted per second.
Received compressed packets	Specify the threshold number of compressed packets received per second.
Transmitted compressed packets	Specify the threshold number of compressed packets transmitted per second.
Received multicast packets	Specify the threshold number of received Multicast packets per second.
Receive errors	Specify the threshold number of corrupt packets received per second.
Transmit errors	Specify the threshold number of corrupt packets transmitted per second.
Packet collisions	Specify the threshold number of collisions that occur per second while transmitting packets.
Dropped receive packets	Specify the threshold number of received packets that are dropped per second due to a lack of space in the buffers.

**Table 4-4** Global System Notifications Parameters (continued)

Parameter	Description
Dropped Transmit packets	Specify the threshold number of transmitted packets that are dropped per second due to a lack of space in the buffers.
Transmit carrier errors	Specify the threshold number of carrier errors that occur per second while transmitting packets.
Receive frame errors	Specify the threshold number of frame alignment errors that occur per second on received packets.
Receive fifo overruns	Specify the threshold number of First In First Out (FIFO) overrun errors that occur per second on received packets.
Transmit fifo overruns	Specify the threshold number of First In First Out (FIFO) overrun errors that occur per second on transmitted packets.
Transactions per second	Specify the threshold number of transfers per second sent to the system.
Sectors written per second	Specify the threshold number of sectors transferred to or from the system

**Step 4** Click **Save**.

The STRM-LM Administration Console appears.

**Step 5** From the menu, select **Configurations > Deploy Configuration Changes**.

## Configuring the Console Settings

The STRM-LM Console provides the interface for STRM-LM. This Console is also used to manage distributed STRM-LM deployments.

The Console is accessed from a standard web browser. When you access the system, a prompt appears for a user name and password, which must be configured in advance by the STRM-LM administrator. STRM-LM supports the following web browsers:

- Internet Explorer 6.0 or 7.0
- Mozilla Firefox 3.0

To configure STRM-LM Console settings:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **Console** icon.

The Console Settings window appears.

The screenshot shows the 'QRadar Console Settings' window. It contains the following settings:

- Console Settings:**
  - Enable 3D graphs in the user interface: No (dropdown)
- Authentication Settings:**
  - Persistent Session Timeout (in days): 0 (spin box)
  - Maximum Login Failures: 5 (spin box)
  - Login Failure Attempt Window (in minutes): 10 (spin box)
  - Login Failure Block Time (in minutes): 30 (spin box)
  - Login Host Whitelist: (text input field)
  - Inactivity Timeout (in minutes): 0 (spin box)
  - Login Message File: (text input field)
  - Event Permission Precedence: Network Only (dropdown)
- DNS Settings:**
  - Enable DNS Lookups for Host Identity: True (dropdown)
- Reporting Settings:**
  - Report Retention Period: 30 (spin box)
- Data Export Settings:**
  - Include Header in CSV Exports: No (dropdown)
  - Maximum Simultaneous Exports: 1 (spin box)

A 'Save' button is located at the bottom center of the window.

**Step 3** Enter values for the parameters:

**Table 4-5** STRM-LM Console Management Parameters

Parameter	Description
<b>Console Settings</b>	
Enable 3D graphs in the user interface	Using the drop-down list box, select one of the following: <ul style="list-style-type: none"> <li><b>Yes</b> - Displays Dashboard graphics in 3-dimensional format.</li> <li><b>No</b> - Displays Dashboard graphics in 2-dimensional format.</li> </ul>
<b>Authentication Settings</b>	
Persistent Session Timeout (in days)	Specify the length of time, in days, that a user system will be persisted, in days. The default is 0, which disables this features and the remember me option upon login.
Maximum Login Failures	Specify the number of times a login attempt may fail. The default is 5.
Login Failure Attempt Window (in minutes)	Specify the length of time during which a maximum login failures may occur before the system is locked. The default is 10 minutes.
Login Failure Block Time (in minutes)	Specify the length of time that the system is locked if the the maximum login failures value is exceeded. The default is 30 minutes.
Login Host Whitelist	Specify a list of hosts who are exempt from being locked out of the system. Enter multiple entries using a comma-separated list.

**Table 4-5** STRM-LM Console Management Parameters (continued)

Parameter	Description
Inactivity Timeout (in minutes)	Specify the amount of time that a user will be automatically logged out of the system if no activity occurs.
Login Message File	Specify the location and name of a file that includes content you want to appear on the STRM-LM log in window. This file may be in text or HTML format and the contents of the file appear below the current log in window.
Event Permission Precedence	<p>Using the drop-down list box, specify the level of network permissions you want to assign to users. This affects the events that appear in the Event Viewer. The options include:</p> <ul style="list-style-type: none"> <li>• <b>Network Only</b> - A user must have access to either the source network or the destination network of the event to have the event appear in the Event Viewer.</li> <li>• <b>Devices Only</b> - A user must have access to either the device or device group that created the event to have the event appear in the Event Viewer.</li> <li>• <b>Networks and Devices</b> - A user must have access to both the source or the destination network and the device or device group to have an event appear in the Event Viewer.</li> <li>• <b>None</b> - All events appear in the Event Viewer. Any user with Event Viewer role permissions are able to view all events.</li> </ul> <p><b>Note:</b> For more information on managing users, see <a href="#">Chapter 2 Managing Users</a>.</p>
<b>DNS Settings</b>	
Enable DNS Lookups for Host Identity	Enable or disable the ability for STRM-LM to search for host identity information. When enabled, this information is available using the right-mouse button (right-click) on any IP address or asset name in the interface. The default is True.
<b>Reporting Settings</b>	
Report Retention Period	Specify the period of time, in days, that you want the system to maintain reports. The default is 30 days.
<b>Data Export Settings</b>	
Include Header in CSV Exports	Specify whether you want to include a header in a CSV export file.
Maximum Simultaneous Exports	Specify the maximum number of exports you want to occur at one time.

**Step 4** Click **Save**.

- Step 5** From the Administration Console menu, select **Configurations > Deploy Configuration Changes**.

---

## Starting and Stopping STRM-LM

To start, stop, or restart STRM-LM:

- Step 1** In the main STRM-LM interface, click **Config**.  
The STRM-LM Administration Console appears.
- Step 2** From the System menu, select one of the following options:
- a System Start
  - b System Stop
  - c System Restart

# 5

## MANAGING BACKUP AND RECOVERY

Using the Administration Console, you can backup and recover configuration information and data for STRM-LM. You can backup and recover the following information for your system:

- License key information
- Configuration database information
- User profile information

This chapter provides information on managing backup and recover of including:

- [Managing Backup Archives](#)
- [Backing Up Your Information](#)
- [Restoring Your Configuration Information](#)

---

### Managing Backup Archives

Using the Administration Console, you can:

- View your successful backup archives. See [Viewing Back Up Archives](#).
- Import an archive file. See [Importing an Archive](#).
- Delete an archive file. See [Deleting a Backup Archive](#).

## Viewing Back Up Archives

To view all successful backups:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Backup Recovery** icon.  
The Backup Archives window appears.

The screenshot shows a window titled "Backup Archives" with a toolbar containing "On Demand Backup", "Restore", "Delete", "Configure", and a help icon. Below the toolbar is a table with the following data:

Host	Name	Type	Size	Time Initiated	Duration	Initialized By
vanquish_2	scheduled_backup_24_09_2007_db	db	8 MB	2007-09-25 00:00:00	48s	scheduled_initiation
vanquish_2	scheduled_backup_24_09_2007_config	config	13 MB	2007-09-25 00:00:50	43s	scheduled_initiation

Below the table is an "Upload Archive:" section with a text input field, a "Browse..." button, and an "Upload" button.

The list of archives includes backup files that exist in the database. If a backup file is deleted, it is removed from the disk and from the database. Also, the entry is removed from this list and an audit event is generated to indicate the removal.

If a backup is in progress, a status window appears to indicate the duration of the current backup, which user/process initiated the backup, and provides you with the option to cancel the backup.

Each archive file includes the data from the previous day.

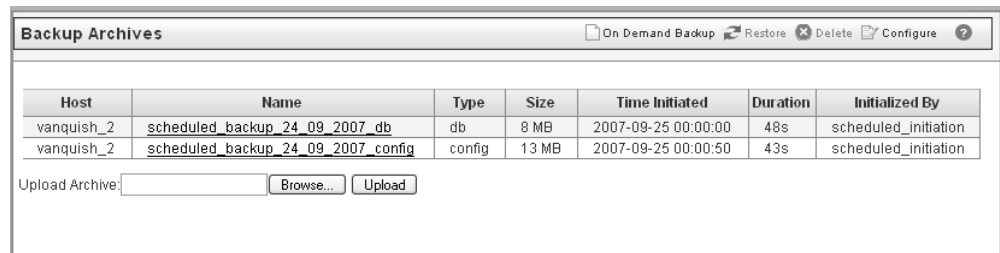
The Backup Archives window provides the following information for each backup archive.

**Table 5-6** Backup Archive Window Parameters

Parameter	Description
Host	Specifies the host that initiated the backup process.
Name	Specifies the name of the backup archive. To view the backup file, click the name of the backup.
Type	Specifies the type of backup. The options are: <ul style="list-style-type: none"> <li>db (database)</li> <li>config (configuration data)</li> <li>data (events information)</li> </ul>
Size	Specifies the size of the archive file.
Time Initiated	Specifies the time that the backup file was created.
Duration	Specifies the time to complete the backup process.
Initialized By	Specifies whether the backup file was created by a user or through a scheduled process.

**Importing an Archive** To import a STRM-LM backup archive file:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Backup Recovery** icon.  
The Backup Archives window appears.



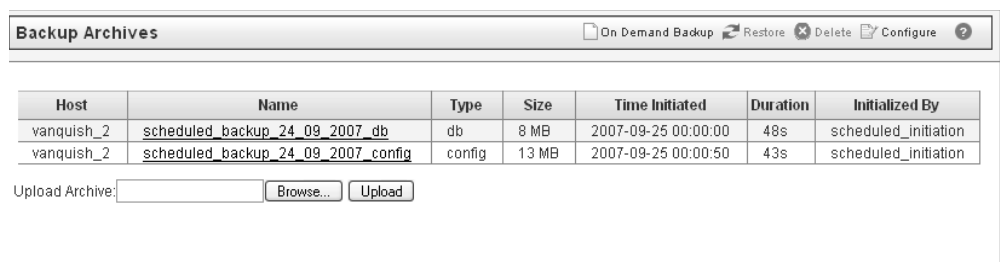
- Step 3** In the Upload Archive field, click **Browse**.  
The File Upload window appears.
- Step 4** Select the archive file you want to upload. Click **Open**.
- Step 5** Click **Upload**.

**Deleting a Backup Archive** To delete a backup archive:



**Note:** To delete a backup archive file, the backup archive file and the Host Context component must reside on the same system. The system must also be in communication with the Console.

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Backup Recovery** icon.  
The Backup Archives window appears.



- Step 3** Select the archive you want to delete.
- Step 4** Click **Delete**.
- Step 5** A confirmation window appears.
- Step 6** Click **Ok**.

## Backing Up Your Information

You can backup your configuration information and data using the Backup Recovery Configuration window. You can backup your configuration information using a manual process. Also, you can also backup your configuration information and data using a scheduled process. By default, STRM-LM creates a backup archive of your configuration information every night at midnight. This section provides information both methods of backing up your data including:

- [Scheduling Your Backup](#)
- [Initiating a Backup](#)

### Scheduling Your Backup

To schedule your backup process:

To configure your backup settings:

- Step 1** In the Administration Console, click the **System Configuration** tab.  
The System Configuration panel appears.
- Step 2** Click the **Backup Recovery** icon.  
The Backup Archives window appears.
- Step 3** Click **Configure**.  
The Backup Recovery Configuration window appears.

- Step 4** Enter values for the parameters:

**Table 5-7** Backup Recovery Configuration Parameters

Parameter	Description
<b>General Backup Configuration</b>	

**Table 5-7** Backup Recovery Configuration Parameters (continued)

Parameter	Description
Backup Repository Path	Specifies the location you want to store your backup file. This path must exist before the backup process is initiated. If this path does not exist, the backup process aborts. The default is /store/backup.
Backup Retention Period	Specify the length of time, in days, that you want to maintain backup files. The default is 2 days.  <i><b>Note:</b> This period of time only affects backup files generated as a result of a scheduled process. Manually initiated backup processes are not affected by this value.</i>
Nightly Backup Schedule	Select one of the following options: <ul style="list-style-type: none"> <li>• <b>No Nightly Backups</b> - Disables the creation of a backup archive on a daily basis.</li> <li>• <b>Configuration Backup Only</b> - Enables the creation of a daily backup at midnight that includes configuration information only.</li> <li>• <b>Configuration and Data Backups</b> - Enables the creation of a daily backup at midnight that includes configuration information and data. If you select the Configuration and Data Backups option, you can select the hosts you want to backup. This option backs up all database table information including your event data and reports.</li> </ul>
<b>Configuration Only Backup</b>	
Backup Time Limit	Specify the length of time, in minutes, that you want to allow the backup to process.
Backup Priority	Specify the level of importance (low, medium, high) you want the system to place on the configuration information backup process compared to other processes.
<b>Data Backup</b>	
Backup Time Limit (min)	Specify the length of time, in minutes, that you want to allow the backup to process.
Backup Priority	Specify the level of importance (low, medium, high) you want the system to place on the data backup process compared to other processes.

**Step 5** Click **Save**.

**Step 6** From the Administration Console menu, select **Configurations > Deploy All**.

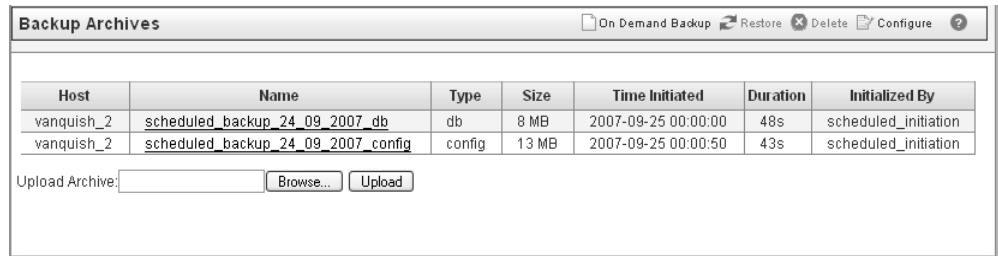
**Initiating a Backup** To manually initiate a backup:

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

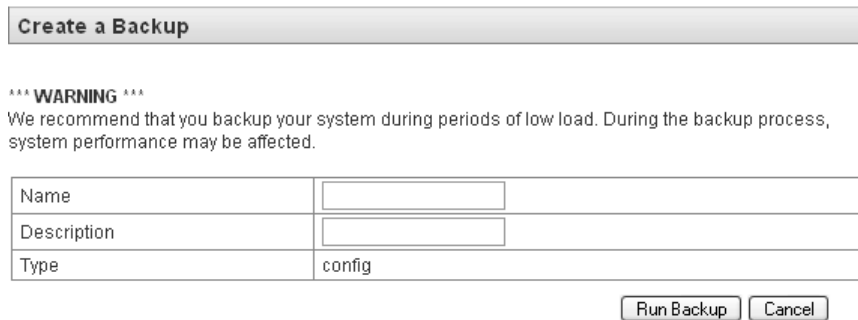
**Step 2** Click the **Backup Recovery** icon.

The Backup Archives window appears.



**Step 3** Click **On Demand Backup**.

The Create a Backup window appears.



**Step 4** Enter values for the following parameters:

- **Name** - Specify a unique name you want to assign to this backup file. The name must be a maximum of 100 alphanumeric characters. Also, the name may contain following characters: underscore (\_), dash (-), or period (.).
- **Description** - Specify a description for this backup. The name can be up to 255 characters in length.

**Step 5** Click **Run Backup**.

A confirmation window appears.

**Step 6** Click **OK**.

## Restoring Your Configuration Information

You can restore configuration information from existing backup archives using the Restore Backup window. Note the following requirements when you are restoring configuration information:

- You can only restore a backup archive created within the same release of software. For example, if you are running STRM-LM 6.1.2, the backup archive must of been created in STRM-LM 6.1.2. You can not restore configuration information archived in a previous release.
- Each backup archive includes IP address information of the system from which the backup archive was created. The IP address of the system on which you want to restore the information must match the IP address of the backup archive. If the IP addresses do not match, the restore process will fail.

To restore your configuration information using a backup archive:



**Note:** The restore process only restores your configuration information. For assistance in restoring your data, contact Juniper Networks Customer Support.

**Step 1** In the Administration Console, click the **System Configuration** tab.

The System Configuration panel appears.

**Step 2** Click the **Backup Recovery** icon.

The Backup Archives window appears.

**Step 3** Select the archive you want to restore.

**Step 4** Click **Restore**.

The Restore a Backup window appears.

**Restore a Backup**

\*\*\* WARNING \*\*\*  
During the restore process all processes cease functioning, you will not be able to access your data, and no data will be collected.

Name	9-12-backup
Description	Configuration backup for today
Type	config

All Items

Restore Cancel

**Step 5** To restore specific items in the archive:

- a Clear the All Items check box.
- b The list of archived items appears.
- c Select the check box for each item you want to restore.

**Step 6** Click **Restore**.

A confirmation window appears.

**Step 7** Click **Ok**.

The restore process begins. This process may take several minutes.

**Step 8** From the Administration Console menu, select **Configurations > Deploy All**.



**Note:** The restore process only restores your configuration information. For assistance in restoring your data, contact Juniper Networks Customer Support.



# 6

## USING THE DEPLOYMENT EDITOR

The deployment editor allows you to manage the individual components of your STRM-LM deployment. Once you configure your Event, and System Views, you can access and configure the individual components of each managed host.



**Note:** *The Deployment Editor requires Java Runtime Environment. Download JRE5.0 at [www.java.sun.com](http://www.java.sun.com). Also, If you are using the Firefox browser, you must configure your browser to accept Java Network Language Protocol (JNLP) files.*



**Caution:** *Many third-party web browsers that use the Internet Explorer engine, such as Maxthon or MyIE, install components that may be incompatible with the STRM-LM Administration Console. You must disable any third-party web browsers installed on your system. For further assistance, please contact customer support.*

If you want to access the STRM-LM Administration Console from behind a proxy server or firewall, you must configure the appropriate proxy settings on your desktop. This allows the software to automatically detect the proxy settings from your browser. To configure the proxy settings, open the Java configuration located in your Control Panel and configure the IP address of your proxy server. For more information on configuring proxy settings, see your Microsoft documentation.

This chapter provides information on managing your views including:

- [About the Deployment Editor](#)
- [Editing Deployment Editor Preferences](#)
- [Building Your Event View](#)
- [Managing Your System View](#)
- [Configuring STRM-LM Components](#)

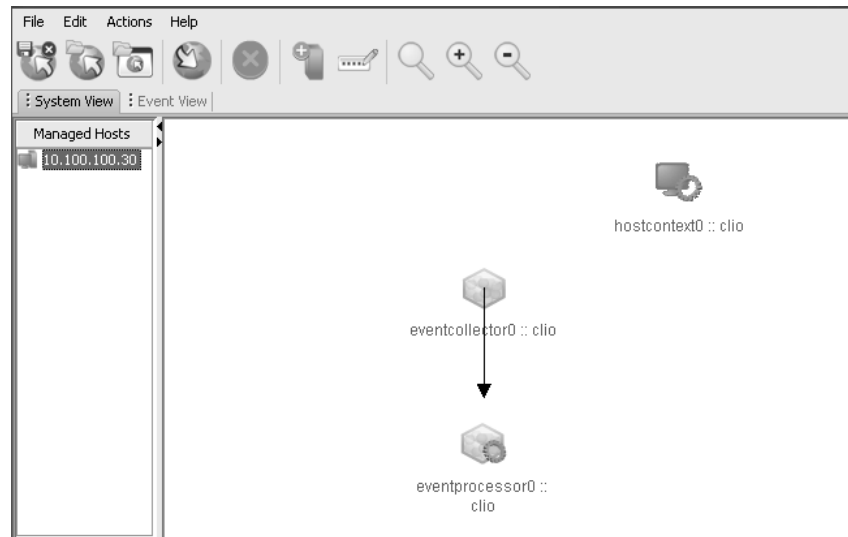
## About the Deployment Editor

You can access the deployment editor using the STRM-LM Administration Console. You can use the deployment editor to create your deployment, assign connections, and configure each component.

The deployment editor provides the following views of your deployment:

- **System View** - Allows you to assign software components to systems (managed hosts) in your deployment. The System View includes all managed hosts in your deployment. A managed host is a system in your deployment that providing additional event processing. By default, the System View also includes the Host Context component, which monitors all STRM-LM components to ensure that each component is operating as expected.
- **Event View** - Allows you to create a view for your SIM components including Event Processor, and Event Collector components.


Each view is divided into two panels.



In the Event View, the left panel provides a list of SIM components you can add to the view and the right panel provides an existing view of your SIM deployment.

In the System View, the left panel provides a list of managed hosts, which you can view and configure. The deployment editor polls your deployment for updates to managed hosts. If the deployment editor detects a change to a managed host in your deployment, a message appears notifying you of the change. For example, if you remove a managed host, a message appears indicating that the assigned components to that host must be re-assigned to another host. Also, if you add a managed host to your deployment, the deployment editor displays a message indicating that the managed host has been added.

## Accessing the Deployment Editor

In the Administration Console, click the deployment editor  icon. The deployment editor appears. Once you update your configuration settings using the deployment editor, you must save those changes to the staging area. You must either manually deploy all changes using the Administration Console Deploy menu option or, upon exiting the Administration Console, a window appears prompting you to deploy changes before you exit. All deployed changes are then enforced throughout your deployment.

## Using the Editor

The deployment editor provides you with several menu and toolbar options when configuring your views including:

- [Menu Options](#)
- [Toolbar Options](#)

### Menu Options

The menu options that appear depend on the selected component in your view. [Table 6-1](#) provides a list of the menu options and the component for which they appear.

**Table 6-1** Deployment Editor Menu Options

Menu Option	Sub Menu Option	Description
File	Save to staging	Saves deployment to the staging area.
	Save and close	Save deployment to the staging area and closes the deployment editor.
	Open staged deployment	Opens a deployment that was previously saved to the staging area.
	Open production deployment	Opens a deployment that was previously saved.
	Close current deployment	Closes the current deployment.
	Revert	Reverts current deployment to the previously saved deployment.
	Edit Preferences	Opens the preferences window.
	Close editor	Closes the deployment editor.
Edit	Delete	Deletes a component, host, or connection.
Actions	Add a managed host	Opens the Add a Managed Host wizard.
	Manage NATed Networks	Opens the Manage NATed Networks window, which allows you to manage the list of NATed networks in your deployment.
	Rename component	Renames an existing component.  This option is only available when a component is selected.









**Table 6-1** Deployment Editor Menu Options (continued)

Menu Option	Sub Menu Option	Description
	Configure	Configure a STRM-LM components. This option is only available when Event Collector or Event Processor is selected.
	Assign	Assigns a component to a managed host. This option is only available when Event Collector or Event Processor is selected.
	Unassign	Unassigns a component from a managed host. This option is only available when the selected component has a managed host running a compatible version of STRM-LM software.  This option is only available when Event Collector or Event Processor is selected.



### Toolbar Options

The toolbar options include:

**Table 6-2** Toolbar Options

Icon	Description
	Saves deployment to the staging area and closes the deployment editor.
	Opens current production deployment.
	Opens a deployment that was previously saved to the staging area.
	Discards recent changes and reloads last saved model.
	Deletes selected item from the deployment view. This option is only available when the selected component has a managed host running a compatible version of STRM-LM software.
	Opens the Add a Managed Host wizard, which allows you to add a managed host to your deployment.
	Opens the Manage NATed Networks window, which allows you to manage the list of NATed networks in your deployment.
	Resets the zoom to the default.

**Table 6-2** Toolbar Options (continued)

Icon	Description
	Zoom in.
	Zoom out.

**Creating Your Deployment**

To create your deployment, you must:

- Step 1** Build your System View. See [Managing Your System View](#).
- Step 2** Configure added components. See [Configuring STRM-LM Components](#).
- Step 3** Build your Event View. See [Building Your Event View](#).
- Step 4** Stage the deployment. From the deployment editor menu, select **File > Save to Staging**.
- Step 5** Deploy all configuration changes. From the Administration Console menu, select **Configurations > Deploy All**.

For more information on the Administration Console, see [Chapter 1 Overview](#).

**Before you Begin**

Before you begin, you must:

- Install all necessary hardware and STRM-LM software.
- Install Java Runtime Environment. You can download Java version 1.5.0\_12 at the following web site: <http://java.com/en/download/index.jsp>
- If you are using the Firefox browser, you must configure your browser to accept Java Network Language Protocol (JNLP) files.
- Plan your STRM-LM deployment including the IP addresses and login information for all devices in your STRM-LM deployment.

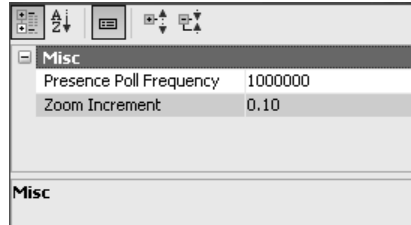


**Note:** *If you require assistance with the above, please contact Juniper Networks Customer Support.*

### Editing Deployment Editor Preferences

To edit the deployment editor preferences:

- Step 1** From the deployment editor main menu, select **File > Edit Preferences**.  
The Deployment Editor Setting window appears.



- Step 2** Enter values for the following parameters:
- **Presence Poll Frequency** - Specify how often, in milliseconds, that the managed host monitors your deployment for updates, for example, a new or updated managed host.
  - **Zoom Increment** - Specify the increment value when the zoom option is selected. For example, 0.1 indicates 10%.
- Step 3** Close the window  
The Deployment Editor appears.

---

### Building Your Event View

The Event View allows you to create and manage the SIM components for your deployment including:

- **Event Collector** - Collects security events from various types of security devices in your network. The Event Collector gathers events from local, remote, and device sources. The Event Collector then normalizes the events and sends the information to the Event Processor. The Event Collector also bundles all virtually identical events to conserve system usage.
- **Event Processor** - An Event Processor processes flows collected from one or more Event Collector(s). The events are bundled once again to conserve network usage. Once received, the Event Processor correlates the information from STRM-LM and distributes to the appropriate area, depending on the type of event. The Event Processor also includes information gathered by STRM-LM to indicate any behavioral changes or policy violations for that event. Rules are then applied to the events that allow the Event Processor to process according to the configured rules.

To build your Event View, you must:

- Step 1** Add SIM components to your view. See [Adding Components](#).
- Step 2** Connect the components. See [Connecting Components](#).
- Step 3** Forward normalized events. See [Forwarding Normalized Events](#).

- Step 4** Rename the components so each component has a unique name. See [Renaming Components](#).

**Adding Components** To add components to your Event View:

- Step 1** In the deployment editor, click the **Event View** tab.

The Event View appears.

- Step 2** In the Event Tools panel, select a component you want to add to your deployment.

The Adding a New Component Wizard appears.

- Step 3** Enter a unique name for the component you want to add. The name can be up to 15 characters in length and may include underscores or hyphens. Click **Next**.

The Assign Component window appears.

- Step 4** From the Select a host to assign to list box, select a managed host to which you want to assign the new component. Click **Next**.
- Step 5** Click **Finish**.
- Step 6** Repeat for each component you want to add to your view.
- Step 7** From the main menu, select **File > Save to staging**.

### Connecting Components

Once you add all the necessary components in your Event View, you must connect your Event Processor(s) and Event Collector(s).

To connect components:

- Step 1** In the Event View, select the component for which you want to establish a connection.
- Step 2** From the menu, select **Actions > Add Connection**.



**Note:** You can also use the right mouse button (right-click) to access the Action menu item.

An arrow appears in your map.

- Step 3** Drag the end of the arrow to the component on which you want to establish a connection. You can only connect Event Collectors to Event Processors.

The arrow connects the two components.

- Step 4** Repeat for all remaining components that you want to establish a connection.
- Step 5** Specify a unique name for the source or target. The name can be up to 15 characters in length and may include underscores or hyphens. Click **Next**.

The event source/target information window appears.

- Step 6** Enter values for the parameters:

- **Enter a name for the off-site host** - Specify the name of the off-site host. The name can be up to 15 characters in length and may include underscores or hyphens.
- **Enter the IP address of the server** - Specify the IP address of the managed host to which you want to connect.
- **Encrypt traffic from off-site source** - Select the check box if you want to encrypt traffic from an off-site source. To enable encryption, you must select this check box on the associated off-site source and target.

- Step 7** Click **Next**.
- Step 8** Click **Finish**.
- Step 9** Repeat for all remaining off-site sources and targets.
- Step 10** From the main menu, select **File > Save to staging**.



**Note:** If you update your Event Collector configuration or the monitoring ports, you must manually update your source and target configurations to maintain the connection between deployments.

**Forwarding Normalized Events**

To forward normalized events, you must configure an off-site Event Collector (target) in your current deployment and the associated off-site Event Collector in the receiving deployment (source).

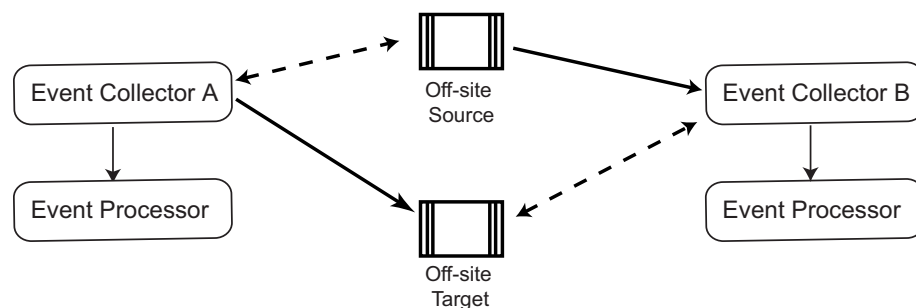
You can add the following components to your Event View:

- **Off-site Source** - Indicates an off-site Event Collector from which you want to receive data. The source must be configured with appropriate permissions to send events to the off-site target.
- **Off-site Target** - Indicates an off-site Event Collector to which you want to send data.

For example, if you want to forward normalized events between two deployments (A and B), where deployment B wants to receive events from deployment A you must configure deployment A with an off-site target to provide the IP address of the managed host that includes Event Collector B. You must then connect Event Collector A to the off-site target. In deployment B, you must configure an off-site source with the IP address of the managed host that includes Event Collector A and the port to which Event Collector A is monitoring.

If you want to disconnect the off-site source, you must remove the connections from both deployments. From deployment A, you must remove the off-site target and in deployment B, you must remove the off-site source.

If you want to enable encryption between deployments, you must enable encryption on both off-site source and target. Also, you must ensure both the off-site source and target include the public keys to ensure appropriate access. For example, in the example below, if you want to enable encryption between the off-site source and Event Collector B, you must copy the public key (located at /root/.ssh/id\_rsa.pub) from the Event Collector to the off-site source (copy the file to /root/.ssh/authorized\_keys).



**Figure 6-1** Example of Connecting Deployments

To forward normalized events:

- Step 1** In the deployment editor, click the **Event View** tab.  
The Event View appears.

**Step 2** In the Components panel, select either **Add Off-site Source** or **Add Off-site Target**.

The Adding a New Component Wizard appears.

**Step 3** Specify a unique name for the source or target. The name can be up to 15 characters in length and may include underscores or hyphens. Click **Next**.

The event source/target information window appears.

**Step 4** Enter values for the parameters:

- **Enter a name for the off-site host** - Specify the name of the off-site host. The name can be up to 15 characters in length and may include underscores or hyphens.
- **Enter the IP address of the server** - Specify the IP address of the managed host to which you want to connect.

- **Encrypt traffic from off-site source** - Select the check box if you want to encrypt traffic from an off-site source. To enable encryption, you must select this check box on the associated off-site source and target.

**Step 5** Click **Next**.

**Step 6** Click **Finish**.

**Step 7** Repeat for all remaining off-site sources and targets.

**Step 8** From the main menu, select **File > Save to staging**.



**Note:** If you update your Event Collector configuration or the monitoring ports, you must manually update your source and target configurations to maintain the connection between deployments.

### Renaming Components

You may want to rename a component in your view to uniquely identify components through your deployment.

To rename a component:

**Step 1** Select the component you want to rename.

**Step 2** From the menu, select **Actions > Rename Component**.



**Note:** You can also use the right mouse button (right-click) to access the Action menu items.

The Rename component window appears.

**Step 3** Enter a new name for the component. The name must be alphanumeric with no special characters.

**Step 4** Click **Ok**.

---

## Managing Your System View

The System View allows you to manage all managed hosts in your network. A managed host is a component in your network that includes STRM-LM software. If you are using a STRM-LM appliance, the components for that appliance model appear. If your STRM-LM software is installed on your own hardware, the System View includes a Host Context component. The System View allows you to select which component(s) you want to run on each managed host.

Using the System View, you can:

- Set up managed hosts in your deployment. See [Setting Up Managed Hosts](#).
- Use STRM-LM with NATed networks in your deployment. See [Using NAT with STRM-LM](#).
- Update the managed host port configuration. See [Configuring a Managed Host](#).

- Assign a component to a managed host. See [Assigning a Component to a Host](#).
- Configure Host Context. See [Configuring Host Context](#).

### Setting Up Managed Hosts

Using the deployment editor you can manage all hosts in your deployment including:

- Add a managed host to your deployment. See [Adding a Managed Host](#).
- Edit an existing managed host. See [Editing a Managed Host](#).
- Remove a managed host. See [Removing a Managed Host](#).

You also can not assign or configure components on a non-Console managed host when the STRM-LM software version is incompatible with the software version that the Console is running. If a managed host has previously assigned components and is running an incompatible software version, you can still view the components, however, you are not able to update or delete the components.

Encryption provides greater security for all STRM-LM traffic between managed hosts. To provide enhanced security, STRM-LM also provides integrated support for OpenSSH and attachmateWRQ® Reflection SSH software. Reflection SSH software provides a FIPS 140-2 certified encryption solution. When integrated with STRM-LM, Reflection SSH provides secure communication between STRM-LM components. For information on Reflection SSH, see the following web site:

[www.wrq.com/products/reflection/ssh](http://www.wrq.com/products/reflection/ssh)



**Note:** You must have Reflection SSH installed on each managed host you want to encrypt using Reflection SSH. Also, Reflection SSH is not compatible with other SSH software, such as, Open SSH.

Since encryption occurs between managed hosts in your deployment, your deployment must consist of more than one managed host before encryption is possible. Encryption is enabled using SSH tunnels (port forwarding) initiated from the client. A client is the system that initiates a connection in a client/server relationship. When encryption is enabled for a managed host, encryption tunnels are created for all client applications on a managed host to provide protected access to the respective servers. If you enable encryption on a non-Console managed host, encryption tunnels are automatically created for databases and other support service connections to the Console.



**Note:** Enabling encryption reduces the performance of a managed host by at least 50%.

### Adding a Managed Host

To add a managed host:

- Step 1** From the menu, select **Actions > Add a managed host**.

The Add new host wizard appears.

**Adding a managed host to the deployment**

Steps

1. Adding a managed host to the deployment
2. Enter the host's IP
3. Configure NAT settings (optional)
4. Ready to add managed host to deployment. Click Finish to continue.

**i** You must have all necessary software installed on the component before adding a managed host to your deployment. For more information, see your documentation.

Your current deployment will be saved before the managed host is added.

< Back   Next >   Finish   Cancel

**Step 2** Click **Next**.

The Enter the host's IP window appears.

**Enter the host's IP**

Steps

1. Adding a managed host to the deployment
2. Enter the host's IP
3. Configure NAT settings (optional)
4. Ready to add managed host to deployment. Click Finish to continue.

Enter the IP of the server or appliance to add.

Enter the root password of the host.

Confirm the root password of the host.


Host is NATed.

Enable encryption.

< Back   Next >   Finish   Cancel

**Step 3** Enter values for the parameters:

- **Enter the IP of the server or appliance to add** - Specify the IP address of the host you want to add to your System View.
- **Enter the root password of the host** - Specify the root password for the host.
- **Confirm the root password of the host** - Specify the password again, for confirmation.
- **Host is NATed** - Select the check box if you want to use an existing Network Address Translation (NAT) on this managed host. For more information on NAT, see [Using NAT with STRM-LM](#).


 **Note:** If you want to enable NAT for a managed host, the NATed network must be using static NAT translation. For more information on using NAT, see [Using NAT with STRM-LM](#).

- **Enable Encryption** - Select the check box if you want to create an encryption tunnel for the host.

If you selected the Host is NATed check box, the Configure NAT settings window appears. Go to [Step 4](#). Otherwise, go to [Step 5](#).


**Step 4** To select a NATed network, enter values for the following parameters:

- **Enter public IP of the server or appliance to add** - Specify the public IP address of the managed host. The managed host uses this IP address to communicate with another managed host that belongs to a different network using NAT.
- **Select NATed network** - Using the drop-down list box, select network you want this managed host to use.

 **Note:** For information on managing your NATed networks, see [Using NAT with STRM-LM](#).

**Step 5** Click **Next**.

**Step 6** Click **Finish**.

 **Note:** If your deployment included undeployed changes, a window appears enabling you to deploy all changes.

The System View appears with the host in the Managed Hosts panel.


### Editing a Managed Host

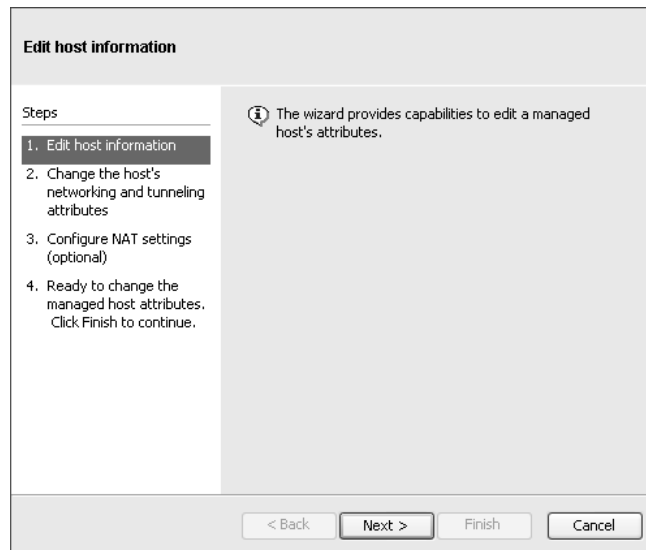
To edit an existing managed host:

**Step 1** Click the **System View** tab.

**Step 2** Use the right mouse button (right-click) on the managed host you want to edit and select **Edit Managed Host**.

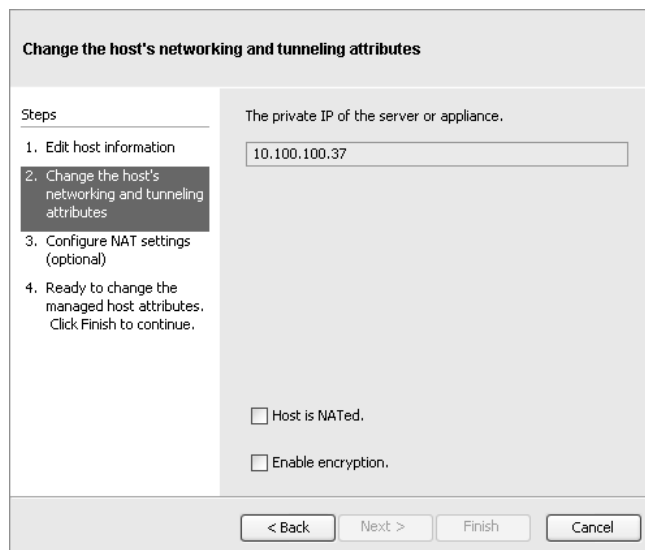
The Edit a managed host wizard appears.

 **Note:** This option is only available when the selected component has a managed host running a compatible version of STRM-LM software.



**Step 3** Click **Next**.

The attributes window appears.



**Step 4** Edit the following values, as necessary:

- **Host is NATed** - Select the check box if you want to use existing Network Address Translation (NAT) on this managed host. For more information on NAT, see [Using NAT with STRM-LM](#).



**Note:** If you want to enable NAT for a managed host, the NATed network must be using static NAT translation. For more information on using NAT, see [Using NAT with STRM-LM](#).

- **Enable Encryption** - Select the check box if you want to create an encryption tunnel for the host.

If you selected the Host is NATed check box, the Configure NAT settings window appears. Go to [Step 5](#). Otherwise, go to [Step 6](#).

**Step 5** To select a NATed network, enter values for the following parameters:

- **Enter public IP of the server or appliance to add** - Specify the public IP address of the managed host. The managed host uses this IP address to communicate with another managed host that belongs to a different network using NAT.
- **Select NATed network** - Using the drop-down list box, select network you want this managed host to use.



**Note:** For information on managing your NATed networks, see [Using NAT with STRM-LM](#).

**Step 6** Click **Next**.

**Step 7** Click **Finish**.

The System View appears with the updated host in the Managed Hosts panel.

### Removing a Managed Host

You can only remove non-Console managed hosts from your deployment. You can not remove a managed host that is hosting the STRM-LM Console.

To remove a managed host:

**Step 1** Click the **System View** tab.

**Step 2** Use the right mouse button (right-click) on the managed host you want to delete and select **Remove host**.



**Note:** This option is only available when the selected component has a managed host running a compatible version of STRM-LM software.

A confirmation window appears.

**Step 3** Click **Ok**.

**Step 4** From the Administration Console menu, select **Configurations > Deploy All**.

### Using NAT with STRM-LM

Network Address Translation (NAT) translates an IP address in one network to a different IP address in another network. NAT provides increased security for your deployment since requests are managed through the translation process and essentially hides internal IP address.

Before you enable NAT for a STRM-LM managed host, you must set-up your NATed networks using static NAT translation. This ensures communications between managed hosts that exist within different NATed networks.



**Note:** Your static NATed networks must be set-up and configured on your network before you enable NAT using STRM-LM. For more information, see your network administrator.

You can add a non-NATed managed host using inbound NAT for the public IP address and dynamic for outbound NAT but are located on the same switch as the Console or managed host. However, you must configure the managed host to use the same IP address for the public and private IP addresses.

When adding or editing a managed host, you can enable NAT for that managed host. You can also use the deployment editor to manage your NATed networks including:

- [Adding a NATed Network to STRM-LM](#)
- [Editing a NATed Network](#)
- [Deleting a NATed Network From STRM-LM](#)
- [Changing the NAT Status for a Managed Host](#)

### Adding a NATed Network to STRM-LM

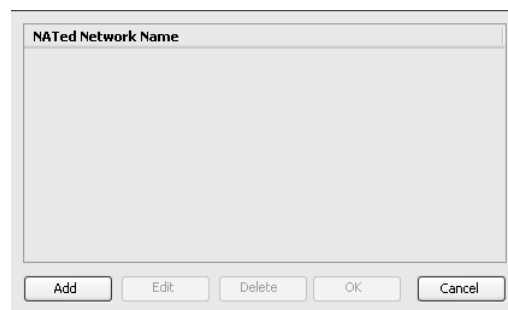
To add a NATed network to your STRM-LM deployment:

**Step 1** In the deployment editor, click the  NATed networks icon.



**Note:** You can also use the **Actions > Managed NATed Networks** menu option to access the *Managed NATed Networks* window.

The Manage NATed Networks window appears.



**Step 2** Click **Add**.

The Add New Nated Network window appears.



**Step 3** Enter a name of a network you want to use for NAT.

**Step 4** Click **Ok**.

The Manage NATed Networks window appears.

**Step 5** Click **Ok**.

A confirmation window appears.

**Step 6** Click **Yes**.

### Editing a NATed Network

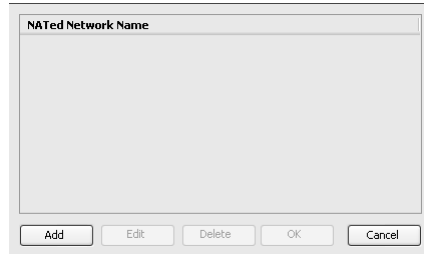
To edit a NATed network:

**Step 1** In the deployment editor, click the  NATed networks icon.



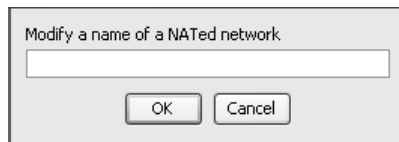
**Note:** You can also use the **Actions > Managed NATed Networks** menu option to access the Managed NATed Networks window.

The Manage NATed Networks window appears.



**Step 2** Select the NATed network you want to edit and click **Edit**.

The Edit NATed Network window appears.



**Step 3** Update the name of the network you want to use for NAT.

**Step 4** Click **Ok**.

The Manage NATed Networks window appears.

**Step 5** Click **Ok**.

A confirmation window appears.

**Step 6** Click **Yes**.

### Deleting a NATed Network From STRM-LM

To delete a NATed network from your deployment:

**Step 1** In the deployment editor, click the  NATed networks icon.



**Note:** You can also use the **Actions > Managed NATed Networks** menu option to access the Managed NATed Networks window.

The Manage NATed Networks window appears.

**Step 2** Select the NATed network you want to delete.

**Step 3** Click **Delete**.

A confirmation window appears.

**Step 4** Click **Ok**.

**Step 5** Click **Yes**.

### Changing the NAT Status for a Managed Host

To change your NAT status for a managed host, make sure you update the managed host configuration within STRM-LM before you update the device. This prevents the host from becoming unreachable and allows you to deploy changes to that host.

To change the status of NAT (enable or disable) for an existing managed host:

**Step 1** In the deployment editor, click the **System View** tab.

**Step 2** Use the right mouse button (right-click) on the managed host you want to edit and select **Edit Managed Host**.

The Edit a managed host wizard appears.

**Step 3** Click **Next**.

The networking and tunneling attributes window appears.

**Step 4** Choose one of the following:

a If you want to enable NAT for the managed host, select the check box. Go to [Step 5](#)



**Note:** If you want to enable NAT for a managed host, the NATed network must be using static NAT translation.

b If you want to disable NAT for the managed host, clear the check box. Go to [Step 6](#)

**Step 5** To select a NATed network, enter values for the following parameters:

- **Change public IP of the server or appliance to add** - Specify the public IP address of the managed host. The managed host uses this IP address to communicate with another managed host that belongs to a different network using NAT.
- **Select NATed network** - Using the drop-down list box, select network you want this managed host to use.
- **Manage NATs List** - Update the NATd network configuration. For more information see, [Using NAT with STRM-LM](#).

**Step 6** Click **Next**.

**Step 7** Click **Finish**.

The System View appears with the updated host in the Managed Hosts panel.



**Note:** Once you change the NAT status for an existing managed host error messages may appear. Ignore all error messages.

**Step 8** Update the configuration for the device (firewall) to which the managed host is communicating.

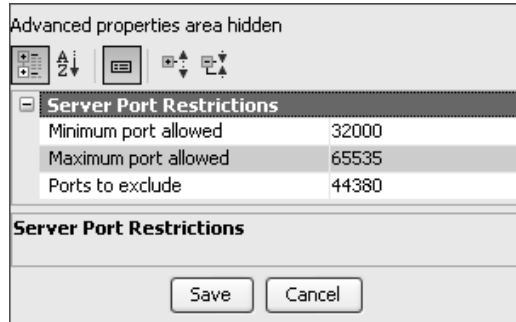
**Step 9** From the STRM-LM Administration Console menu, select **Configurations > Deploy All**.

### Configuring a Managed Host

To configure a managed host:

- Step 1** From the System View, use the right mouse button (right-click) on the managed host you want to configure and select **Configure**.

The Configure host window appears.



- Step 2** Enter values for the parameters:

- **Minimum port allowed** - Specify the minimum port for which you want to establish communications.
- **Maximum port allowed** - Specify the maximum port for which you want to establish communications.
- **Ports to exclude** - Specify the port you want to exclude from communications. You can enter multiple ports you want to exclude. Separate multiple ports using a comma.

- Step 3** Click **Save**.

### Assigning a Component to a Host

You can assign the STRM-LM components added in the Event Views to the managed hosts in your deployment. This section provides information on assigning a component to a host using the System View, however, you can also assign components to a host in the Event Views.

To assign a host:

- Step 1** Click the **System View** tab.

- Step 2** From the Managed Host list, select the managed host to which you want to assign a STRM-LM component.

The System View of the host appears.

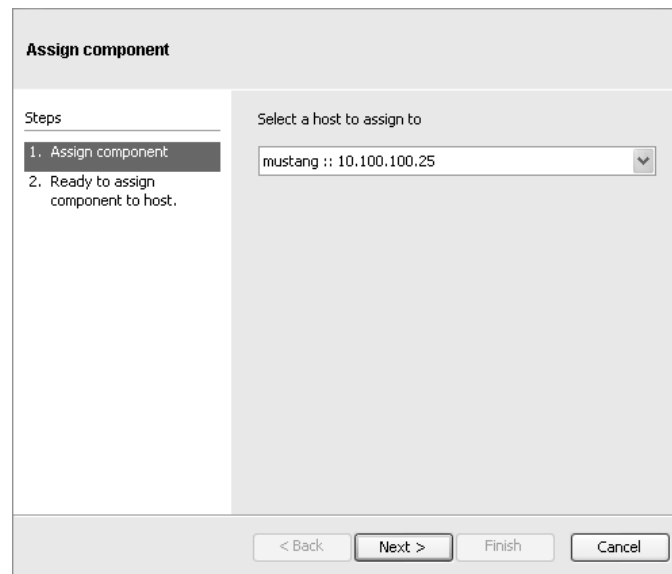
- Step 3** Select the component you want to assign to a managed host.

- Step 4** From the menu, select **Actions > Assign**.



**Note:** You can also use the right mouse button (right-click) to access the Actions menu items.

The Assign Component wizard appears.



**Step 5** From the Select a host drop-down list box, select the host that you want to assign to this component. Click **Next**.



**Note:** The drop-down list box only displays managed hosts that are running a compatible version of STRM-LM software.

**Step 6** Click **Finish**.

**Configuring Host Context** The Host Context component monitors all STRM-LM components to make sure that each component is operating as expected.

To configure Host Context:

**Step 1** In the Deployment Editor, click the **System View** tab.

The System View appears.

**Step 2** Select the Managed Host that includes the Host Context you want to configure.

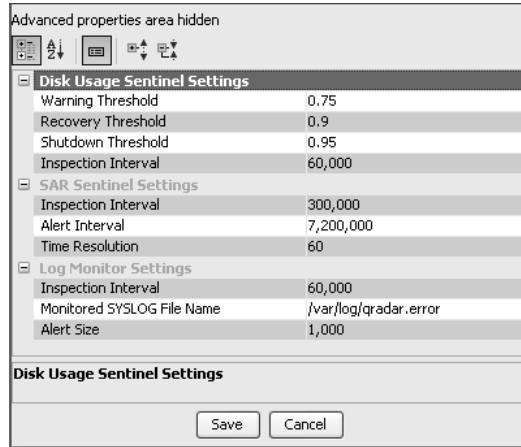
**Step 3** Select the Host Context component.

**Step 4** From the menu, select **Actions > Configure**.



**Note:** You can also use the right mouse button (right-click) to access the Actions menu item.

The Host Context Configuration window appears.



**Step 5** Enter values for the parameters:

**Table 6-3** Host Context Parameters

Parameter	Description
<b>Disk Usage Sentinel Settings</b>	
Warning Threshold	<p>When the configured threshold of disk usage is exceeded, an e-mail is sent to the administrator indicating the current state of disk usage. The default is 0.75, therefore, when disk usage exceeds 75%, an e-mail is sent indicating that disk usage is exceeding 75%. If disk usage continues to increase above the configured threshold, a new e-mail is sent after every 5% increase in usage. By default, Host Context monitors the below partitions for disk usage:</p> <ul style="list-style-type: none"> <li>• /</li> <li>• /store</li> <li>• /store/tmp</li> </ul> <p>Specify the desired warning threshold for disk usage.</p> <p><b>Note:</b> Notification e-mails are sent to the Administrative Email Address and are sent from the Alert Email From Address, which is configured in the System Settings. For more information, see <a href="#">Chapter 4 Setting Up STRM-LM</a>.</p>
Recovery Threshold	<p>Once the system has exceeded the shutdown threshold, disk usage must fall below the recovery threshold before STRM-LM processes are restarted. The default is 0.90, therefore, processes will not be restarted until the disk usage is below 90%.</p> <p>Specify the recovery threshold.</p> <p><b>Note:</b> Notification e-mails are sent to the Administrative Email Address and are sent from the Alert Email From Address, which is configured in the System Settings. For more information, see <a href="#">Chapter 4 Setting Up STRM-LM</a>.</p>

**Table 6-3** Host Context Parameters (continued)

Parameter	Description
Shutdown Threshold	<p>When the system exceeds the shutdown threshold, all STRM-LM processes are stopped. An e-mail is sent to the administrator indicating the current state of the system. The default is 0.95, therefore, when disk usage exceeds 95%, all STRM-LM processes stop.</p> <p>Specify the shutdown threshold.</p> <p><b>Note:</b> Notification e-mails are sent to the Administrative Email Address and are sent from the Alert Email From Address, which is configured in the System Settings. For more information, see <a href="#">Chapter 4 Setting Up STRM-LM</a>.</p>
Inspection Interval	Specify the frequency, in milliseconds, that you want to determine disk usage.
SAR Sentinel Settings	
Inspection Interval	Specify the frequency, in milliseconds, that you want to inspect SAR output. The default is 300,000 ms.
Alert Interval	Specify the frequency, in milliseconds, that you want to be notified that the thresholds have been exceeded. The default is 7,200,000 ms.
Time Resolution	Specify the time, in seconds, that you want the SAR inspection to be engaged. The default is 60 seconds.
Log Monitor Settings	
Inspection Interval	Specify the frequency, in milliseconds, that you want to monitor the log files. The default is 60,000 ms.
Monitored SYSLOG File Name	Specify a filename for the SYSLOG file. The default is /var/log/STRM.error.
Alert Size	Specify the maximum number of lines you want to monitor from the log file. The default is 1000.

**Step 6** Click **Save**.

The System View appears.

## Configuring STRM-LM Components

This section provides information on configuring STRM-LM components and includes:

- [Configuring an Event Collector](#)
- [Configuring an Event Processor](#)

### Configuring an Event Collector

The Event Collector collects security events from various types of security devices in your network.

To configure an Event Collector:

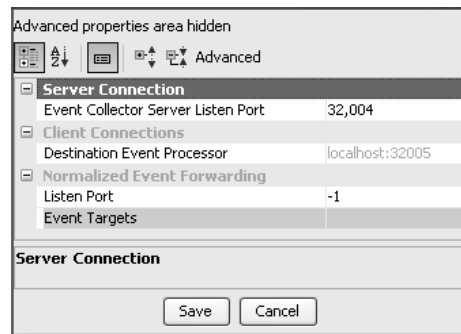
**Step 1** From either the Event View or System View, select the Event Collector you want to configure.

**Step 2** From the menu, select **Actions > Configure**.



**Note:** You can also use the right mouse button (right-click) to access the Action menu items.

The Event Collector Configuration window appears.

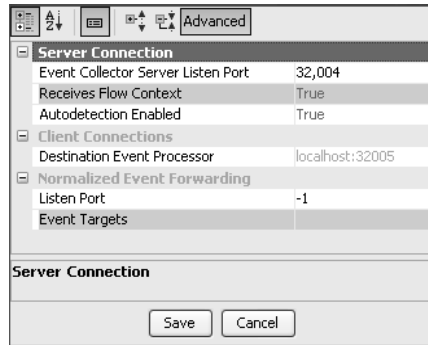


**Step 3** Enter values for the parameters:

**Table 6-4** Event Collector Parameters

Parameter	Description
Event Collector Server Listen Port	The Event Collector monitors at least one device per instance of the component.
Destination Event Processor	Specify the destination Event Processor for communications.
Listen Port	Specifies the listening port for event forwarding.
Event Targets	If the Event Collector includes an off-site target, this parameter specifies the normalized event forwarding device, separated by commas, using the following format:  <device>:<type>  This parameter is for informational purposes only and is not amendable.

**Step 4** In the toolbar, click **Advanced** to display the advanced parameters.  
The advanced configuration parameter appear.



**Step 5** Enter values for the parameters:

**Table 6-5** Event Collector Advanced Parameters

Parameter	Description
Receives Flow Context	Specifies the first Event Collector installed in your deployment. This parameter is for informational purposes only and is not amendable.
Auto Detection Enabled	Specify if you want the Event Collector to auto analyze and accept traffic from previously unknown sensor devices. The default is true, which means that the Event Collector detects sensor devices in your network. Also, when set to True, the appropriate firewall ports are opened to enable auto detection to receive events. For more information on configuring sensor devices, see the <i>Managing Sensor Devices Guide</i> .

**Step 6** Click **Save**.

The deployment editor appears.

**Step 7** Repeat for all Event Collectors in your deployment you want to configure.

**Configuring an Event Processor**

The Event Processor processes flows collected from one or more Event Collector(s).

To configure an Event Processor:

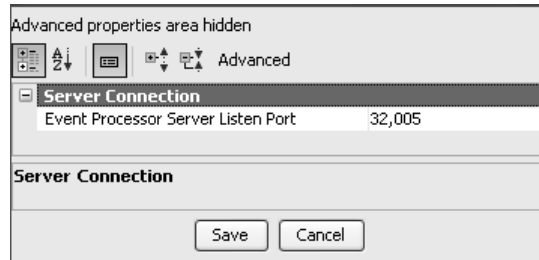
**Step 1** From either the Event View or System View, select the Event Processor you want to configure.

**Step 2** From the menu, select **Actions > Configure**.



**Note:** You can also use the right mouse button (right-click) to access the Action menu items.

The Event Processor Configuration window appears.



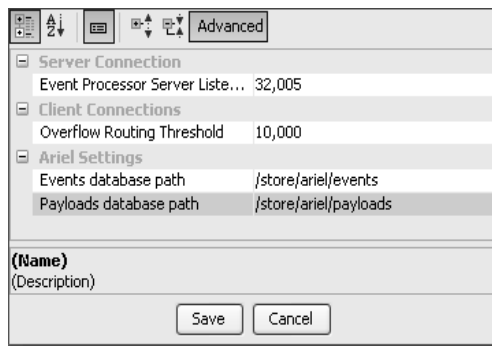
**Step 3** Enter values for the parameters:

**Table 6-6** Event Processor Parameters

Parameter	Description
Event Processor Server Listen Port	Specify the port that the Event Processor monitors for incoming connections. The default range is from 32000 to 65535.

**Step 4** In the toolbar, click **Advanced** to display the advanced parameters.

The advanced configuration parameters appear.



**Step 5** Enter values for the parameters, as necessary:

**Table 6-7** Event Processor Parameters

Parameter	Description
Overflow Routing Threshold	Specify the events per second threshold that the Event Processor can manage events. Events over this threshold are placed in the cache.
Events database path	Specify the location you want to store events. The default is <code>/store/ariel/events</code> .
Payloads database path	Specify the location you want to store payload information. The default is <code>/store/ariel/payloads</code> .

**Step 6** Click **Save**.

The deployment editor appears.

**Step 7** Repeat for all Event Processors in your deployment you want to configure.

# 7

## FORWARDING SYSLOG DATA

STRM-LM allows you to forward received log data to other products. You can forward syslog data (raw log data) received from devices as well as STRM-LM normalized event data. You can forward data on a per Event Collector/ Event Processor basis and you can configure multiple forwarding destinations. Also, STRM-LM ensures that all data that is forwarded is unaltered.

This chapter includes:

- [Adding a Syslog Destination](#)
- [Editing a Syslog Destination](#)
- [Delete a Syslog Destination](#)

---

### Adding a Syslog Destination

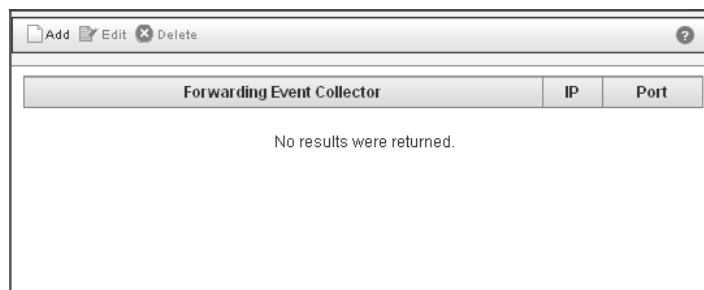
To add a syslog forwarding destination:

**Step 1** In the Administration Console, click the **SIM Configuration** tab.

The SIM Configuration panel appears.

**Step 2** Click the **Syslog Forwarding Destinations** icon.

The Syslog Forwarding Destinations window appears.



**Step 3** Click **Add**.

The Syslog Forwarding Destinations window appears.

**Step 4** Enter values for the parameters:

- **Forwarding Event Collector** - Using the drop-down list box, select the deployed Event Collector from which you want to forward log data.
- **IP** - Enter the IP address of the system to which you want to forward log data.
- **Port** - Enter the port number on the system to which you want to forward log data.

**Step 5** Click **Save**.

## Editing a Syslog Destination

To edit a syslog forwarding destination:

**Step 1** In the Administration Console, click the **SIM Configuration** tab.

The SIM Configuration panel appears.

**Step 2** Click the **Syslog Forwarding Destinations** icon.

The Syslog Forwarding Destinations window appears.

**Step 3** Select the entry you want to edit.

**Step 4** Click **Edit**.

The Syslog Forwarding Destinations window appears.

**Step 5** Update values, as necessary:

- **Forwarding Event Collector** - Using the drop-down list box, select the deployed Event Collector from which you want to forward log data.
- **IP** - Enter the IP address of the system to which you want to forward log data.
- **Port** - Enter the port number on the system to which you want to forward log data.

**Step 6** Click **Save**.

## Delete a Syslog Destination

To delete a syslog forwarding destination:

- Step 1** In the Administration Console, click the **SIM Configuration** tab.  
The SIM Configuration panel appears.
- Step 2** Click the **Syslog Forwarding Destinations** icon.  
The Syslog Forwarding Destinations window appears.
- Step 3** Select the entry you want to delete.
- Step 4** Click **Delete**.  
A confirmation window appears.
- Step 5** Click **Ok**.



# A

## JUNIPER NETWORKS MIB

This appendix provides information on the Juniper Networks Management Information Base (MIB). The Juniper Networks MIB allows you to send SNMP traps to other network management systems. The Juniper Networks OID is 1.3.6.1.4.1.20212.



**Note:** For assistance with the Juniper Networks MIB, please contact Juniper Networks Customer Support.

The Juniper Networks MIB includes:

```
JUNIPER-STRM-TRAPS DEFINITIONS ::= BEGIN
IMPORTS
MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE,
IpAddress
FROM SNMPv2-SMI
jnxStrm
FROM JUNIPER-SMI
DisplayString, DateAndTime, TruthValue,
TEXTUAL-CONVENTION
FROM SNMPv2-TC;
strmTrapInfo MODULE-IDENTITY
LAST-UPDATED "200811101100Z"
ORGANIZATION "Juniper Networks, Inc"
CONTACT-INFO
" Juniper Technical Assistance Center
Juniper Networks, Inc.
1194 N. Mathilda Avenue
Sunnyvale, CA 94089
E-mail: support@juniper.net"
DESCRIPTION "Security Threat Response Manger trap
definitions for STRM"
::= { jnxStrm 1 }"
strmTrap OBJECT IDENTIFIER ::= { jnxStrm 0 }
---
--- Variables within the STRM Trap Info
--- .2636.7.1.*
```

```

---
strmLocalHostAddress OBJECT-TYPE
SYNTAX IPAddress
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "IP address of the local machine where the
notification originated"
 ::= { strmTrapInfo 1 }
strmTimeString OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..64))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Time offense was created or time the event rule
fired. Example 'Mon Apr 28 10:14:49 GMT 2008'"
 ::= { strmTrapInfo 2 }
strmTimeInMillis OBJECT-TYPE
SYNTAX Counter64
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Time offense was created or time the event rule
fired in milliseconds"
 ::= { strmTrapInfo 3 }
---
--- Offense Properties
---
strmOffenseID OBJECT-TYPE
SYNTAX Counter64
MAX-ACCESS accessible-for-notify

STATUS current
DESCRIPTION "Offense ID"
 ::= { strmTrapInfo 4 }
strmOffenseDescription OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Description of the Offense"
 ::= { strmTrapInfo 6 }
strmOffenseLink OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "HTTP link to the offense"
 ::= { strmTrapInfo 7 }
strmMagnitude OBJECT-TYPE

```

```

SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Offense magnitude"
 ::= { strmTrapInfo 8 }
strmSeverity OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Offense severity"
 ::= { strmTrapInfo 9 }
strmCreditibility OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Offense creditibility"
 ::= { strmTrapInfo 10 }

strmRelevance OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Offense relevance"
 ::= { strmTrapInfo 11 }
---
--- Attacker Properties
---
strmAttackerIP OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Attacker IP"
 ::= { strmTrapInfo 12 }
strmAttackerUserName OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Attacker's User Name"
 ::= { strmTrapInfo 13 }
strmAttackerCount OBJECT-TYPE
SYNTAX Counter64
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Total Number of Attackers"
 ::= { strmTrapInfo 14 }
strmTop5AttackerIPs OBJECT-TYPE

```

```

SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top 5 Attackers by Magnitude(comma separated)"
 ::= { strmTrapInfo 15 }
strmTopAttackerIP OBJECT-TYPE
SYNTAX IPAddress
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top Attacker IPs"
 ::= { strmTrapInfo 16 }
strmTop5AttackerUsernames OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top 5 Attackers by Magnitude(comma separated)"
 ::= { strmTrapInfo 48 }
strmTopAttackerUsername OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..32))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top Attacker IPs"
 ::= { strmTrapInfo 49 }
strmAttackerNetworks OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Attacker Networks(comma separated)"
 ::= { strmTrapInfo 17 }
---
--- Target Properties
---
strmTargetIP OBJECT-TYPE
SYNTAX IPAddress
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Target IP"
 ::= { strmTrapInfo 18 }
strmTargetUserName OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..64))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Target's User Name"
 ::= { strmTrapInfo 19 }

```

```

strmTargetCount OBJECT-TYPE
SYNTAX Counter64
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Total Number of Targets"
 ::= { strmTrapInfo 20 }
strmTop5TargetIPs OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top 5 Target IPs by Magnitude"
 ::= { strmTrapInfo 21 }
strmTopTargetIP OBJECT-TYPE
SYNTAX IpAddress
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top Target"
 ::= { strmTrapInfo 22 }
strmTop5TargetUsernames OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top 5 Target Usernames by Magnitude"
 ::= { strmTrapInfo 50 }
strmTopTargetUsername OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..32))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top Target"
 ::= { strmTrapInfo 51 }
strmTargetNetworks OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Target Networks(comma separated)"
 ::= { strmTrapInfo 23 }
---
--- Category properties
---
strmCategoryCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Total Number of Categories"
 ::= { strmTrapInfo 24 }

```

```

strmTop5Categories OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top 5 Categories(comma separated)"
 ::= { strmTrapInfo 25 }
strmTopCategory OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..64))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top Category"
 ::= { strmTrapInfo 26 }
strmCategoryID OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Category ID of Event that triggered the Event CRE
Rule"
 ::= { strmTrapInfo 27 }
strmCategory OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..64))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Category of the Event that triggered the Event CRE
Rule"
 ::= { strmTrapInfo 28 }
---
--- Annotation Properties
---
strmAnnotationCount OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Total Number of Annotations"
 ::= { strmTrapInfo 29 }
strmTopAnnotation OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Top Annotation"
 ::= { strmTrapInfo 30 }
---
--- Rule Properties
---
strmRuleCount OBJECT-TYPE

```

```

SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Total Number of Rules contained in the Offense"
 ::= { strmTrapInfo 31 }
strmRuleNames OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Names of the Rules that contributed to the
Offense(comma separated)"
 ::= { strmTrapInfo 32 }
strmRuleID OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "ID of the Rule that was triggered in the CRE"
 ::= { strmTrapInfo 33 }
strmRuleName OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..256))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Name of the Rules that was triggered in the CRE"
 ::= { strmTrapInfo 34 }
strmRuleDescription OBJECT-TYPE
SYNTAX DisplayString (SIZE(0..1024))
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Description/Notes of the Rules that was triggered
in the CRE"
 ::= { strmTrapInfo 35 }
---
--- Event Properties
---
strmEventCount OBJECT-TYPE
SYNTAX Counter64
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Total Number of Events contained in the Offense"
 ::= { strmTrapInfo 36 }
strmEventID OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "ID of the Event that triggered the Event CRE Rule"

```

```

 ::= { strmTrapInfo 37 }
 strmQid OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS accessible-for-notify
 STATUS current
 DESCRIPTION "QID of the Event that triggered the Event CRE Rule"
 ::= { strmTrapInfo 38 }
 strmEventName OBJECT-TYPE
 SYNTAX DisplayString (SIZE(0..256))
 MAX-ACCESS accessible-for-notify
 STATUS current
 DESCRIPTION "Name of the Event that triggered the Event CRE
 Rule"
 ::= { strmTrapInfo 39 }
 strmEventDescription OBJECT-TYPE
 SYNTAX DisplayString (SIZE(0..1024))
 MAX-ACCESS accessible-for-notify
 STATUS current
 DESCRIPTION "Description/Notes of the Event that triggered the
 Event CRE Rule"
 ::= { strmTrapInfo 40 }
 ---
 --- IP Properties
 ---
 strmSourceIP OBJECT-TYPE
 SYNTAX IpAddress
 MAX-ACCESS accessible-for-notify
 STATUS current
 DESCRIPTION "Source IP of the Event that triggered the Event CRE
 Rule"
 ::= { strmTrapInfo 41 }
 strmSourcePort OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS accessible-for-notify
 STATUS current
 DESCRIPTION "Source Port of the Event that triggered the Event
 CRE Rule"
 ::= { strmTrapInfo 42 }
 strmDestinationIP OBJECT-TYPE
 SYNTAX IpAddress
 MAX-ACCESS accessible-for-notify
 STATUS current
 DESCRIPTION "Destination IP of the Event that triggered the
 Event CRE Rule"
 ::= { strmTrapInfo 43 }

```

```

strmDestinationPort OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Destination Port of the Event that triggered the
Event CRE Rule"
 ::= { strmTrapInfo 44 }
strmProtocol OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Protocol of the Event that triggered the Event CRE
Rule"
 ::= { strmTrapInfo 45 }
strmAttackerPort OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Source Port of the Event that triggered the Event
CRE Rule"
 ::= { strmTrapInfo 46 }
strmTargetPort OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS accessible-for-notify
STATUS current
DESCRIPTION "Destination Port of the Event that triggered the
Event CRE Rule"
 ::= { strmTrapInfo 47 }
---
--- STRM Trap Notifications
--- .2636.7.0.*
---

strmEventCRENotification NOTIFICATION-TYPE
OBJECTS {
strmLocalHostAddress,
strmTimeString,
strmRuleName,
strmRuleDescription,
strmAttackerIP,
strmAttackerPort,
strmAttackerUserName,
strmAttackerNetworks,
strmTargetIP,
strmTargetPort,
strmTargetUserName,

```

```

    strmTargetNetworks,
    strmProtocol,
    strmQid,
    strmEventName,
    strmEventDescription,
    strmCategory
}
STATUS current
DESCRIPTION "Event CRE Notification"
 ::= { strmTrap 1 }
strmOffenseCRENotification NOTIFICATION-TYPE
OBJECTS {
    strmLocalHostAddress,
    strmTimeString,
    strmRuleName,
    strmRuleDescription,
    strmOffenseID,
    strmOffenseDescription,
    strmOffenseLink,
    strmMagnitude,
    strmSeverity,
    strmCreditibility,
    strmRelevance,
    strmEventCount,
    strmCategoryCount,
    strmTop5Categories,
    strmAttackerIP,
    strmAttackerUserName,
    strmAttackerNetworks,
    strmAttackerCount,
    strmTop5AttackerIPs,
    strmTargetIP,
    strmTargetUserName,
    strmTargetNetworks,
    strmTargetCount,
    strmTop5TargetIPs,
    strmRuleCount,
    strmRuleNames,
    strmAnnotationCount,
    strmTopAnnotation.1,
    strmTopAnnotation.2,
    strmTopAnnotation.3,
    strmTopAnnotation.4,
    strmTopAnnotation.5,

```

```
}  
STATUS current  
DESCRIPTION "Offense CRE Notification"  
::= { strmTrap 2 }  
END
```



# B

## VIEWING AUDIT LOGS

Changes made by STRM-LM users are recorded in the audit logs. You can view the audit logs to monitor changes to STRM-LM and the users performing those changes.

All audit logs are stored in plain text and are archived and compressed once the audit log file reaches a size of 200 MB. The current log file is named `audit.log`. Once the file reaches a size of 200 MB, the file is compressed and renamed as follows: `audit.1.gz`, `audit.2.gz`, etc with the file number incrementing each time a log file is archived. STRM-LM stores up to 50 archived log files.

This appendix provides information on using the audit logs including:

- [Logged Actions](#)
- [Viewing the Log File](#)

---

### Logged Actions

STRM-LM logs the following categories of actions in the audit log file:

**Table D-1** Logged Actions

Category	Action
User Authentication	Log in to STRM-LM.
User Authentication	Log out of STRM-LM.
Administrator Authentication	Log in to the STRM-LM Administration Console.
Administrator Authentication	Log out of the STRM-LM Administration Console.
Session Authentication	Create a new administration session.
	Terminate an administration session.
	Deny an invalid authentication session.
	Expire a session authentication.
	Create an authentication session.
	Terminate an authentication session.

**Table D-1** Logged Actions (continued)

<b>Category</b>	<b>Action</b>
User Authentication Ariel	Deny a login attempt.
	Add an Ariel property.
	Delete an Ariel property.
	Edit an Ariel property.
	Add an Ariel property extension.
	Delete an Ariel property extension.
	Edit an Ariel property extension.
Root Login	Log in to STRM-LM, as root.
	Log out of STRM-LM, as root.
Rules	Add a rule.
	Delete a rule.
	Edit a rule.
User Accounts	Add an account.
	Edit an account.
	Delete an account.
User Roles	Add a role.
	Edit a role.
	Delete a role.
Sensor Devices	Add a sensor device.
	Edit a sensor device.
	Delete a sensor device.
	Add a sensor device group.
	Edit a sensor device group.
	Delete a sensor device group.
	Edit the DSM parsing order.
Sensor Device Extension	Add an sensor device extension.
	Edit the sensor device extension.
	Delete a sensor device extension.
	Upload a sensor device extension.
	Upload a sensor device extension successfully.
	Upload an invalid sensor device extension.
	Download a sensor device extension.
	Report a sensor device extension.
	Modify a sensor devices association to a device or device type.

**Table D-1** Logged Actions (continued)

<b>Category</b>	<b>Action</b>
Protocol Configuration	Add a protocol configuration.
	Delete a protocol configuration.
	Edit a protocol configuration.
Reports	Add a template.
	Delete a template.
	Edit a template.
	Execute a template.
	Delete a report.
Groups	Add a group.
	Delete a group.
	Edit a group.
Backup and Recovery	Edit the configuration.
	Initiate the backup.
	Complete the backup.
	Fail the backup.
	Delete the backup.
	Synchronize the backup.
	Cancel the backup.
	Initiate the restore.
	Upload a backup.
	Upload an invalid backup.
	Delete the backup.
	Purge the backup.
Asset	Delete all assets.
QIDmap	Add a QID map entry.
	Edit a QID map entry.
Ariel Properties	Add a custom event property.
	Edit a custom event property.
	Delete a custom property.
Ariel Property Extensions	Add a custom event property expression.
	Edit a custom event property expression.
	Delete a custom event property expression.
Installation	Install a .rpm package, such as a DSM update.
License	Add a license key.
	Edit a license key.

## Viewing the Log File

To view the audit logs:

**Step 1** Log in to STRM-LM as root.

**Step 2** Go to the following directory:

```
/var/log/audit
```

**Step 3** Open the desired audit log file.

Each entry in the log file displays using the following format:



**Note:** The maximum size of any audit message (not including date, time, and host name) is 1024 characters.

```
<date_time> <host name> <user>@<IP address> (thread ID)
[<category>] [<sub-category>] [<action>] <payload>
```

Where:

<date\_time> is the date and time of the activity in the format: Month Date HH:MM:SS.

<host name> is the host name of the Console where this activity was logged.

<user> is the name of the user that performed the action.

<IP address> is the IP address of the user that performed the action.

(thread ID) is the identifier of the Java thread that logged this activity.

<category> is the high-level category of this activity.

<sub-category> is the low-level category of this activity.

<action> is the activity that occurred.

<payload> is the complete record that has changed, if any. This may include a user record or an event rule.

For example:

```
Nov 6 12:22:31 localhost.localdomain admin@10.100.100.15
(Session) [Authentication] [User] [Login]
Nov 6 12:22:31 localhost.localdomain jsam@10.100.100.15 (0)
[Configuration] [User Account] [Account Modified]
username=james, password=/oJDUXP7YXUYQ, networks=ALL,
email=sam@qllabs.com, userrole=Admin
Nov 13 10:14:44 localhost.localdomain admin@10.100.45.61 (0)
[Configuration] [FlowSource] [FlowSourceModified] Flowsource(
name="tim", enabled="true", deployed="false",
asymmetrical="false", targetQflow=DeployedComponent(id=3),
flowsourceType=FlowsourceType(id=6),
flowsourceConfig=FlowsourceConfig(id=1))
```

# INDEX

---

## A

- administration console
  - about 3
  - accessing 4
  - using 4
- administrator role 9
- Ariel database 80
- audience 1
- audit log
  - viewing 100
- authentication
  - configuring 15
  - LDAP 15
  - RADIUS 15
  - system 15
  - TACACS 15
  - user 15
- auto detection 79
- automatic update
  - about 35
  - scheduling 35

---

## B

- backup and recovery 47

---

## C

- changes
  - deploying 5
- command line max matched results 38
- components 78
- console
  - settings 43
- conventions 1
- customer support
  - contacting 2

---

## D

- database settings 37
- deploying changes 5
- deployment editor 55
  - about 55
  - accessing 57
  - creating your deployment 59
  - event view 60
  - preferences 60
  - requirements 59
  - STRM-LM components 78
  - system view 65
  - toolbar 58
  - using 57

- device access 22
- device management 25

---

## E

- encryption 62, 63, 65
- Event Collector
  - about 60
  - configuring 78
- Event Processor
  - about 60
  - configuring 79
- event view
  - about 56
  - adding components 61
  - building 60
  - connecting components 62
  - renaming components 65

---

## F

- firewall access 22
- flow view
  - components 63

---

## H

- hashing
  - algorithm 38
- host
  - adding 66
- host context 56, 75

---

## I

- interface roles 25

---

## L

- LDAP/Active directory 15
- license key
  - exporting 21
  - managing 19

---

## M

- managed host
  - adding 66
  - assigning components 74
  - editing 68
  - removing 70
  - set-up 24

maximum real-time results 37  
MIB 85

---

## N

NAT  
   editing 72  
   enabling 70  
   removing 72  
   using with STRM-LM 70  
 Network Address Translation. See NAT  
 network hierarchy  
   creating 31  
 NTP 29

---

## O

off-site source 64  
off-site target 64

---

## P

passwords  
  changing 26

---

## R

RADIUS authentication 15  
RDATE 27  
recovery 47  
restarting STRM-LM 46  
role 7  
  administrator 9  
  creating 8  
  editing 11  
  managing 7

---

## S

SNMP agent  
  accessing 21, 46  
SNMP Settings 39  
source  
  off-site 63, 64  
starting STRM-LM 46  
stopping STRM-LM 46  
STRM-LM components 78  
STRM-LM user 11  
syslog  
  forwarding 81  
  adding 81  
  deleting 83  
  editing 82  
system authentication 15  
system settings 36  
  configuring 36, 43  
system thresholds 40  
system time 27  
system view

about 56  
assigning components 74  
Host Context 75  
managed host 74  
managing 65

---

## T

TACACS authentication 15  
target  
  off-site 63, 64  
thresholds 40  
time 27  
time limit  
  command like execution 38  
  reporting execution 38  
  web execution 38

---

## U

user  
  creating account 12  
  editing account 13, 14  
  managing 7  
  roles 7  
users  
  authentication 15