Setting Up Fault Management and the Events Client Default Settings

The following topics describe how to use the Events client to view and manage faults:

- Workflow for Setting Up Fault Management, page 6-1
- Check Global Settings for the Events and Vision Clients, page 6-2
- Making Sure Devices Are Configured Correctly, page 6-3
- Setting Up Your Events View, page 6-4
- Creating Ticket and Event Filters for Vision and Events Client Users, page 6-5

Whether you can perform these setup tasks depends on your account privileges. See Permissions Required to Perform Tasks Using the Prime Network Clients, page B-1 for more information.

Workflow for Setting Up Fault Management

Most of the fault management setup tasks are documented in the *Cisco Prime Network 4.2.3 Administrator Guide* and should already be completed. The following table provides the basic workflow for the remaining fault management setup tasks.

	Description	See:
Step 1	Check the global setting that control when tickets are auto-cleared and auto-archived, when a cleared ticket can no longer be reopened, whether raw events are saved, and when data is purged from the Oracle database	Check Global Settings for the Events and Vision Clients, page 6-2
Step 2	Check the device setup tasks to see if there are any changes you need to make, such as enabling SNMP traps	Making Sure Devices Are Configured Correctly, page 6-3
Step 3	Adjust the Events client settings (client refresh interval, age of events to display, number of events to display)	Setting Up Your Events View, page 6-4
Step 4	(Optional) Create event filters and save them so you can use them as needed	Creating Ticket and Event Filters for Vision and Events Client Users, page 6-5

	Description	See:
Step 5	(Optional) Extend Prime Network: • Download and install new events support using Prime Network Device Packages (DPs) • Add support for customized events and threshold-crossing alarms	• *Cisco Prime Network 4.2.3 Administrator Guide* • *Cisco Prime Network 4.2.3 Customization Guide*

Check Global Settings for the Events and Vision Clients

The following fault-related actions are controlled from the Administration client:

- The Vision client and Events client operations users can perform, and the devices users can view and manage. When a user account is created, the administrator assigns:
  - A user access level to the user account (Viewer, Operator, Operator Plus, Configurator, or Administrator). It controls what actions the user can perform using the Vision client, such as clearing or adding notes to tickets).
  - One or more device scopes. Device scopes determine which devices a user has permission to access, and the actions a user can perform on those devices. For example, a user might have sufficient privileges to clear a device ticket, but the user can only do so if the device is in their device scope.

  For a matrix of actions users can perform depending on their user access level and device scope assignments, see Permissions Required to Perform Tasks Using the Prime Network Clients, page B-1.

The following default settings are configured from the Administration client:

		Default Setting
Events client login	User access role that is required to log in to the Events client (the Events client is for advanced users).	Administrator
Locking cleared tickets	Age at which a cleared. ticket can no longer be reopened or have new events added to it.	Disabled
Auto-clearing tickets	Auto-clear tickets if they meet the following criteria: • Is the specified severity (or lower), and • Has not been modified for a specified period of days.	Disabled
Auto-archiving cleared tickets	Move the ticket from an active to an archive partition in the Oracle database and it begins aging. • When the total number of cleared tickets exceeds a specified number. • When a single ticket contains more than a specified number of associated events.	 16,000 150
Saving raw traps and syslogs	Whether raw traps and syslogs received from devices are saved to the Oracle database. It can also store information from unmanaged devices if notification from unmanaged devices is enabled.	Enabled

		Default Setting
Viewing standard events	Whether standard events can be viewed in the clients. Standard events are events for which Prime Network only does very basic parsing; they are not examined for correlation or used as a basis for generating tickets. If enabled, these events are displayed in: • Vision client—Latest Events tab (map view) • Events client—Standard tab **Note** For large deployments, enabling this is not recommended so that Prime Network performance is not negatively impacted.	Disabled
Purging data from Oracle database	When data is purged from the Oracle database: • Actionable events begin aging when they are archived (moved to an archive partition in the Oracle database). • Generic (non-actionable) events begin aging as soon as they are saved.	14 days

For more information on how Prime Network responds to incoming events, see How Prime Network Handles Incoming Events, page 10-1.

Users with Administrator privileges can change these settings by following the directions in the *Cisco Prime Network 4.2.3 Administrator Guide*.

Making Sure Devices Are Configured Correctly

In order for Prime Network to fully model and manage faults on your devices and network, the NEs must be configured correctly so that Prime Network can get the information it needs. A complete list of required and recommended configurations is provided in an appendix to the *Cisco Prime Network 4.2.3 Administrator Guide*.

You can make most required configuration changes using commands that are packaged with Prime Network. To launch these commands, right-click an NE and choose **Commands**. Whether or not you can run these commands depends on your user privileges. See these topics for information on how to use these packaged commands:

- Changing the SNMP Configuration and Managing SNMP Traps, page 8-27
- Changing Device Port Properties and Disabling Ports, page 8-28
- Changing Device Interface Properties and Disabling Interfaces, page 8-29
- Changing Server Settings for DNS, NTP, RADIUS, and TACACs, page 8-30

Other commands are described throughout this document with the services and technologies they apply to.

Configuring Prime Network to Support Unmanaged Devices

You can configure Prime Network to also support events from unmanaged devices. Prime Network can then include these devices in its reports, and you can configure an Event Notification Service to forward these events to northbound clients.

To enable support for unmanaged devices, you must configure the support using the Prime Network Broadband Query Language (BQL) as described in the Cisco Prime Network Integration Developer Guide.

An Event Notification Service can be configured using the Administration client as described in *Cisco Prime Network 4.2.3 Administrator Guide*.

Setting Up Your Events View

The Events client Options dialog box enables you to change various aspects of the event display in Events client.

If You Are Using Prime Network:	**Launch the Events client by choosing:**
As part of suite	**Assure > Prime Network > Events** from the REPLACE main menu bar
As a standalone application	**Start > Programs > Cisco Prime Network >** *gateway-IP-address* **> Cisco Prime Network Events** from your local machine

To set up your events view, choose **Tools > Options** from the main menu. Table 6-1 lists the available options.

Table 6-1 Options for Changing Events client Client

Option	Description	Default
Save last filter	Saves a filter and its criteria so it is available the next time you log into Events. Events are not filtered automatically when you next log into Events client unless the *Open Events with saved filter* option is also selected.	Enabled
Open Prime Network Events with saved filter	When enabled, applies the previous filter to the events as soon as you log into Events. While this option is enabled, a filter remains on until you manually disable it.	Disabled
Display *n* records per page	Specifies the number of events to be displayed per page.	50
Export *n* records in total	Sets the maximum number of events to be exported to a file.	1000
Run auto refresh every *n* secs	Automatically refreshes the Events client display after the specified number of seconds. **Note** This option uses rapid refresh from the database, which can affect the performance of other vital database options.	60

Table 6-1 Options for Changing Events client Client (continued)

Option	Description	Default
Display data for the last *n* hours	Displays past events for the number of hours specified here. For example, if you specify 4 in this field, then events received over the past 4 hours are displayed in the Events client. The default value is two hours, but you can specify up to 10 hours. The higher the value, the longer it takes for the events to be displayed.	2
Find mode (No automatic data retrieval)	Operates the Events client window in Find mode. In this mode, no events will be retrieved from the Oracle database when you open the application or switch between tabs. You can click the Find button in the toolbar to search for the events you need. When in Find mode, the status bar in the Events client window shows "Find Mode (no automatic data retrieval)."	Disabled

Creating Ticket and Event Filters for Vision and Events Client Users

The Vision client and Events client both support a filtering mechanism that lets you create filters and save them for later use. Filters created in a client can be shared, which means other users of the same client can access and run the filters. The following table describes the filters you can create from the two clients and where to get more information.

Client	To create a filter that uses this criteria:	See:
Vision client	All devices in a map: • Tickets • Incoming syslogs and traps • Service events generated by Prime Network	Viewing Tickets and Latest Events for All Devices in a Map, page 11-3
	A specific device: • Tickets • Incoming syslogs and traps (including events not handled by Prime Network, if enabled) • Service events generated by Prime Network • Configuration changes	Viewing Tickets and Events for a Specific Device, page 11-4

Client	To create a filter that uses this criteria:	See:
Events client	All devices managed by Prime Network: • Active and archived Tickets • Active and archived Trap, Syslog, and Service events • Active and archived Trap and Syslog events (standard events) not handled by Prime Network (if enabled) • Device configuration changes (including who made the changes)	Creating and Saving Filters for Tickets and Events, page 12-6
	Trap events and Syslog events from unmanaged devices (if enabled)	
	Prime Network internal system and security events	

Viewing Investigation Ticket Information

Prerequisite

The information ticket is generated only when the **investigation-state-update-ticket** option is enabled. By default, this option is enabled.If you require to disable the option, the below **run registry tool** command is given:

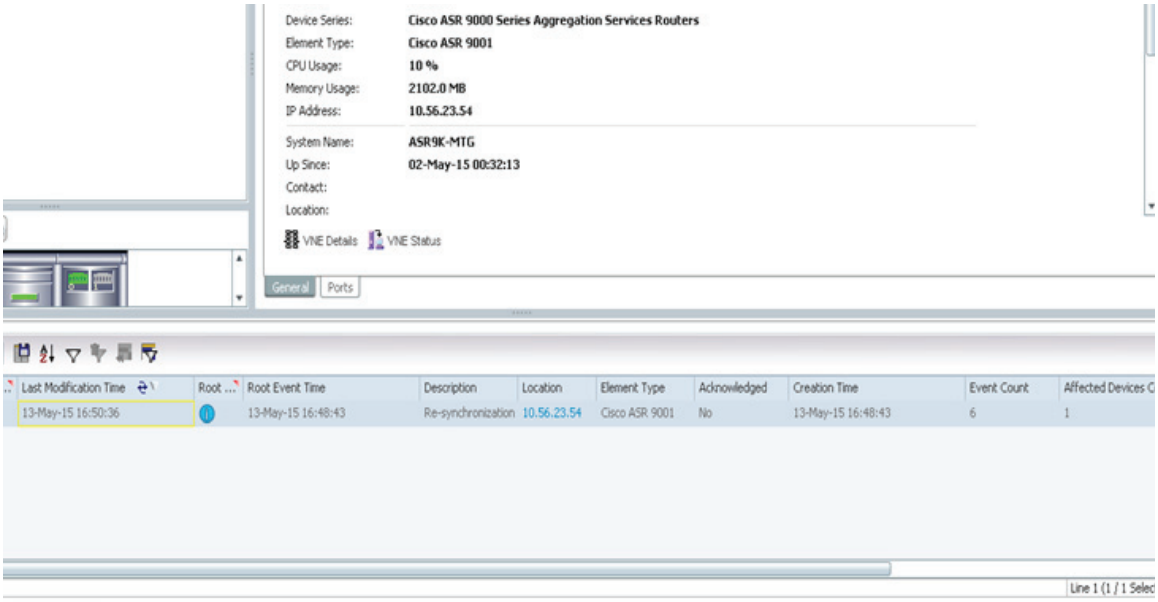
runRegTool.sh -gs localhost set 0.0.0.0 agentdefaults/da/investigation-progress/investigation-state-update-ticket false

VNEs undergo multiple investigation states in its lifecycle. The tracking of information is enabled as **Information** tickets. Using these tickets, you can receive notification if the state of the VNEs is changed.

The information ticket is generated once the VNE is started and the same ticket is updated whenever the VNE state changes in its lifecycle. Once the VNE comes to the **Operational** state, the ticket is cleared.

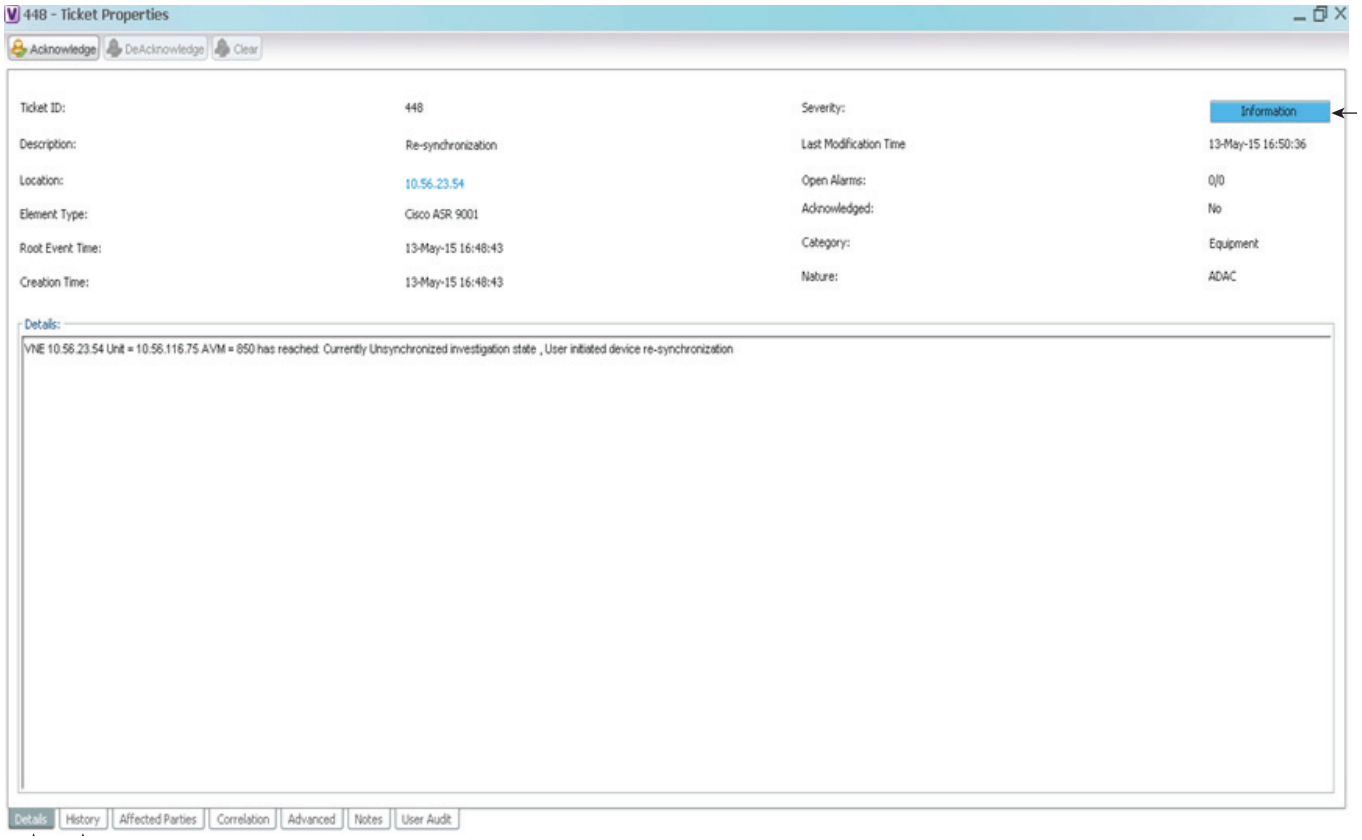
Once a ticket is opened, you can view the reason for each state in the **Details** pane. You can view the history details of a particular ticket with information on various states of the ticket in the **History** window. Figure 6-1 provides the details of ticket information

Figure 6-1 Viewing Investigation Ticket Information



Once a ticket is opened, you can view the reason for each state in the **Details** pane. You can view the history details of a particular ticket with information on various states of the ticket in the **History** window. Figure 6-2 displays the information ticket in **Details** pane

Figure 6-2 Viewing the Investigation Ticket Information in Details Pane



Monitoring Alarms/Events in Prime Network (Event Manager)

In the devices like ASR 903 or ASR 9K, we have monitored service alarms/events to find out the time taken by Prime network to generate the service alarms/events whenever changes on devices such as interface/port/link down or vice versa. Prime Network has the option of monitoring the time taken to generate the alarms /events for the following:

- Admin
- Operational

The Status of the device will be in **Disabled** when there is any interface /port /link is down in physical inventory and the status will be in **OK** state if the same is up. Refer Figure 6-3.Whenever there is change in status in physical inventory, the Prime Network event manager generates the events.

Figure 6-3 Viewing the Status of the device

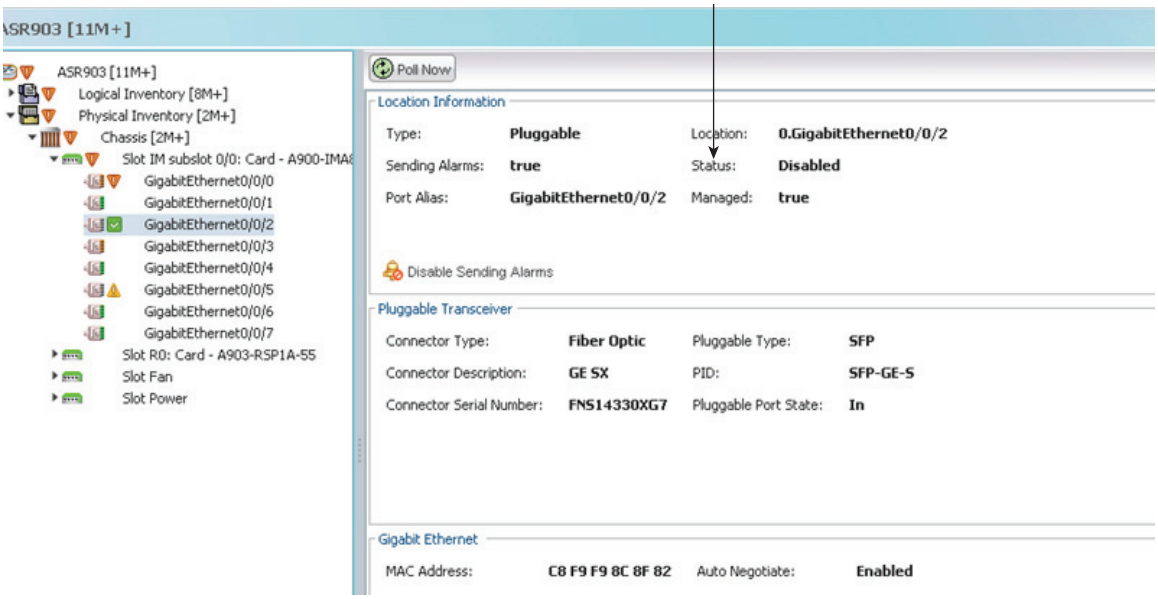
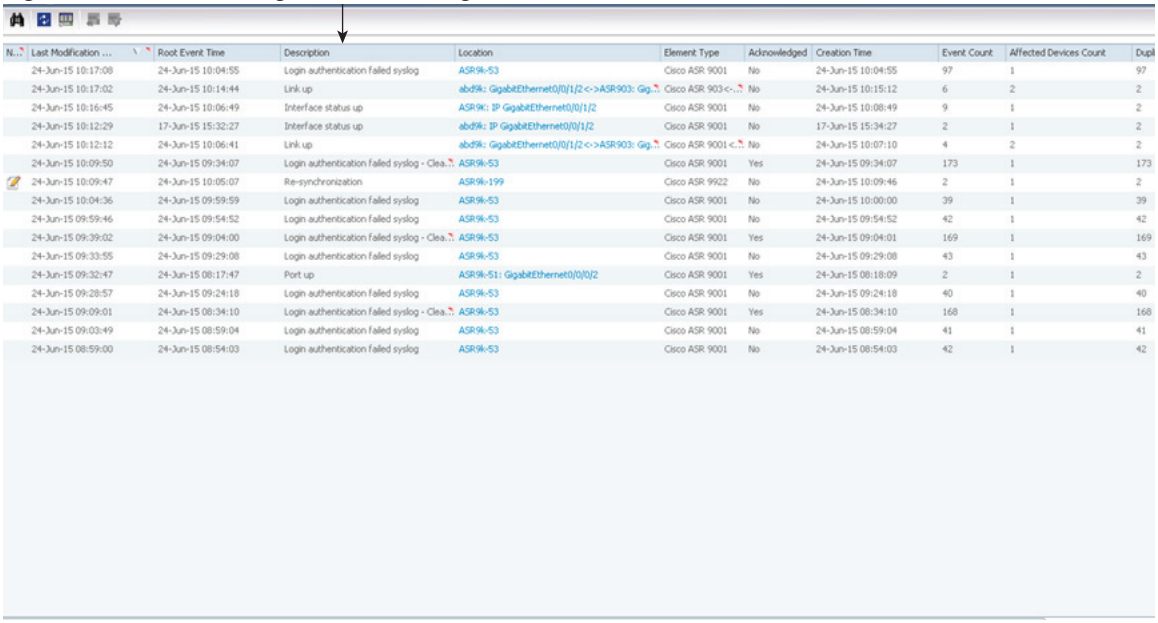


Figure 6-4displays the various investigation states of VNEs

Figure 6-4 Viewing various investigation states of a VNE



The monitoring of alarms /events has been carried out using two types of polling:

Reduced Polling—It is a default polling which provides the time taken by Prime Network for checking any change in the device.

Regular Polling— In regular polling, the time taken by Prime Network for checking any change in device will be more than Reduced Polling.