

# Viewing All Event Types in Prime Network

An event is a distinct incident that occurs at a specific point in time. Some events can indicate an error, failure, or exceptional condition in the network. How Prime Network responds to fault events is described in How Prime Network Correlates Incoming Events, page 10-4. Prime Network also provides extensive details about other events it receives—device configuration changes, activations, and changes in Prime Network components. Advanced users can use the Events client to view all event types—Traps, Syslogs, Tickets, Service events, Provisioning and Audit events, and System and Security events.

These topics explain how to view all of the event types in Prime Network:

- Who Can Launch the Events Client, page 12-1
- Ways You Can View Events, page 12-2
- Interpreting Event Severity Indicators, page 12-5
- Creating and Saving Filters for Tickets and Events, page 12-6
- Determining Whether a Filter Is On and Turning It Off, page 12-10
- Viewing Network Events (Service, Trap, and Syslog Events), page 12-13
- Viewing Tickets, page 12-17
- Viewing Non-Network Events (Audit, Provisioning, System and Security Events), page 12-17
- Changing How Often Event Information is Refreshed, page 12-19
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## Who Can Launch the Events Client

By default, only users with Administrator privileges can use the Events client. Users with lesser privileges can log into the Events client only if the required privileges have been reset from the Administration client. For more information, see the description of the Registry Controller in the *Cisco Prime Network 4.3.2 Administrator Guide*.

*Events* are sorted by date, with the newest item displayed first. *Tickets* are listed according to their modification time, with the most recently modified ticket listed first. Events are stored in the database in Greenwich Mean Time (GMT) but are converted to match the time zone of the client location.

By default, the Events client displays events from the past 2 hours. This is controlled from the Events client Options dialog. To protect performance, do not change the display time frame to more than 2 hours. For information on this and other client options, see Setting Up Your Events View, page 6-4.

Figure 12-1 provides an overview of the Events client window.

### Figure 12-1 Events Client Window

<u>F</u> ile (	Edit ⊻iew	ools <u>R</u> eports	nts - root@10.56. Help	TION	_					- [
«	» 😳 🔨	š 🕈 🏟	2 📃 📕 😽		_					
	verity Event		Time V	Description		ation:	Element Type		Ticket ID Caus.	
			03-Dec-13 18:38:06	Port down due to oper		-	Cisco Catalyst 6500 V55		59	1
		_	03-Dec-13 18:32:06	Port up Port down due to oper			Cisco Catalyst 6500 V55 Cisco Catalyst 6500 V55		59	1
		-	03-Dec-13 18:08:06	Port down due to oper Port up			Cisco Catalyst 6500 VSS Cisco Catalyst 6500 VSS		59	1
		-	03-Dec-13 17:44:06	Port down due to oper		-	Cisco Catalyst 6500 VSS	59	59	1
V	01090	47073309_130	05-06-15 17.44.00	For down dde to oper		corer#1.5.digabic	Cisco Catalyst 0300 V55		59	-
	playing data f	rom the last 2 ho	urs		_				Line 1 (1 / 8 9	
Pr	operties:					**				
Ī					_					
	Event ID:	122105920	22561_1386124686149					Severity:	Major	1
	Description:	Port down o	due to oper					Type:	Service	
	1 1							Ticket ID:		
	Location:	c2-core1#	1.3:GigabitEthernet1/3/	(46				TICKET ID:	59	
		e: Cisco Cataly	yst 6500 VSS					Category:	Communications	
	Element Typ							Nature:	ADAC	
		ne: 03-Dec-13	18:38:06							
		me: 03-Dec-13	18:38:06							
		ne: 03-Dec-13	18:38:06							
	Detection Ti	59	18:38:06							
	Detection Til	59	18:38:06							
	Alarm ID: Causing Eve	59								-

1	Main menu—Create filters, export data, client options, online help, icon reference, and so forth.	4	Events details pane—Shows the selected ticket details at the bottom of the Vision client window ( <b>View &gt; Details</b> ).
2	Toolbar—Tools for finding events in the database, creating and saving customized filters, and navigating through tables with multiple pages.	5	Status bar (shows commands sent to gateway, memory used by client, and gateway connection status)
3	Table panel—Lists events according to tab selected.	6	Event categories, one per tab

# Ways You Can View Events

Events are displayed according to event categories, which are represented by tabs in the Events client. By default, the Events client displays events that occurred in the last 2 hours (or up to 50 events per table).

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The following table provides some examples of the ways you can use the Events client.

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To view:	Do this in the Events client:
Traps and syslogs received from devices, which Prime Network attempts to correlate (upgraded events)	Choose the Syslogs, V1 Trap, V2 Trap, and V3 Trap tabs.
Archived tickets and events that are no longer displayed in the clients	Use the <b>Find in Database</b> tool (specify a data range for best performance).
Events by the devices on which they occurred	Choose the event type tab, then create a filter that uses the Location, Severity, Description, or other criteria to fine-tune your search.
All events by the devices on which they occurred	Choose <b>File &gt; Open All Tab</b> to display the All tab, then create a filter that uses the Location criteria.
Tickets by:	Choose the <b>Tickets</b> tab, then create a filter that uses:
• When the ticket's root cause was detected.	Root Event Time criteria
• When the ticket was modified	Modification Time criteria
• When the ticket were created	Creation Time criteria
Tickets by how many alarms they contain	Choose the <b>Tickets</b> tab, then create a filter that uses the Alarm Count criteria.
Tickets that were cleared or acknowledged by specific users	Choose the <b>Tickets</b> tab, then create a filter that uses the Acknowledged By and Cleared By criteria.
Tickets that have or have not been acknowledged	Choose the <b>Tickets</b> tab, then create a filter that uses the Acknowledged criteria.
Network events by:	Choose the events tab, then create a filter that uses:
• How many events are still a problem (uncleared).	Duplication Count criteria
• How many times the event has occurred	Reduction Count criteria
(Many criteria choices are supported.)	
Tickets by how many devices they affect	Choose the Tickets tab, then create a filter that uses the Affected Devices Count criteria.
Traps and syslogs for which Prime Network can only perform basic parsing (they are not processed for correlation)	Choose the Standard tab.
CCM configuration commands executed on gateway	Choose the Audit tab.
Configurations performed on devices	Choose the Provisioning tab.
Prime Network client login and user activities	Choose the Security tab.
Events that occurred on Prime Network components	Choose the System tab.

### **Event Types and Categories**

Each event tab displays basic information, including severity, event ID, time, and description. In addition, most event tabs show the Location parameter, which indicates the entity that triggered the event, with a hyperlink to the entity's properties. The following table describes the event categories in the Events client.

You can also open the optional All tab that displays a flat list of all events and tickets by choosing **File > Open All Tab**).

General Event Category	Events Client Tab	Contains events related to:	For more information:
Tickets	Ticket	An attention-worthy root cause alarm handled by Prime Network.	Viewing Tickets, page 12-17
Network	Service	Events that are generated by Prime Network.	Viewing Network
Events	systog systogs received from devices (105 systogs, ACE systogs, Nexus systogs, ASR systogs, UCS		Events (Service, Trap, and Syslog Events), page 12-13
	V1 Trap		
	V2 Trap	(ASR traps, IOS, traps, MIB 2 traps, Nexus traps, -CPT traps, and so forth). These traps are parsed	
	V3 Trap	and Prime Network attempts to correlate them.	
	Standard	Traps and syslogs that Prime Network cannot match with any of the rules that define events of interest; they are not processed for correlation.	Viewing Tickets, page 12-17
Non-Network Events	Audit	Configuration commands that are executed on the Prime Network gateway (NE right-click commands, CCM and Compliance Audit operations, and so forth).	Viewing Non-Network Events (Audit, Provisioning,
	Provisioning	Configuration and provisioning activities, including CCM, Command Manager, and Transaction Manager.	System and Security Events), page 12-17
	Security	Client login and user activities related to manage the system and the environment (user accounts, device scopes, logging in and out, password issues, unit changes.	
	System	Prime Network and its components (for example, reachability events, database-related events, system overload prevention steps, and so forth.	

 Table 12-1
 Event Categories in Events client

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# **Interpreting Event Severity Indicators**

Prime Network clients use the same indicators and colors to signal events and tickets in the network. The following example shows a Service events table in the Events client. The colors and badges in the Severity column indicate the seriousness of the event.

### Figure 12-2 Events Client with Event Severity Indicators

< >> (	چ 🕲	Ψ.	酋	4		₩ 🔁						
Severity	Event ID	Time	V			Description	Location	Element Type	Alarm ID	Ticket ID	Causing Event ID	Duplicatio
1	29751	02-Jul-	13 1	1:53:4	5	Device CPU usag. 🔊	C9-UPE27	Cisco Catalyst 3750	881	881		1
V	29746	02-Jul-	13 1	1:53:49	5	CPU utilization ex	C9-UPE27	Cisco Catalyst 3750	876	876		1
×	29742	02-Jul-	13 1	1:52:45	5	CPU utilization le	C9-UPE27	Cisco Catalyst 3750	876	876		1
0	29738	02-Jul-	13 1	1:52:15	5	Device CPU usag. 🔊	C9-UPE27	Cisco Catalyst 3750	881	881		1
V	29729	02-Jul-	13 1	1:52:13	3	CPU utilization ex. 🕽	C9-UPE27	Cisco Catalyst 3750	876	876		1
1	29734	02-Jul-	13 1	1:52:13	3	Device CPU usag. 🔊	C9-UPE27	Cisco Catalyst 3750	881	881		1
V	13748	02-Jul-	13 1	1:51:5	1	Layer 2 tunnel d	401@10.56.57.90	Cisco 7606	970	970		1
V	13743	02-Jul-	13 1	1:51:5	l	Layer 2 tunnel d	202@10.56.57.90	Cisco 7606	969	969		1
~	13726	02-Jul-	13 1	1:51:40	5	Active IP interfac	10.56.57.90#1:	Cisco 7606	871	871		1
~	13718	02-Jul-	13 1	1:51:40	5	Interface status up	10.56.57.90 VRF.	Cisco 7606	932	932		1
~	13722	02-Jul-	13 1	1:51:40	5	Interface status up	10.56.57.90 VRF.	Cisco 7606	933	933		1
~	13709	02-Jul-	13 1	1:51:43	3	OSPF neighbor up	10.56.57.90 OSP.	Cisco 7606	874	871		1
<ul> <li>Image: A second s</li></ul>	13713	02-Jul-	13 1	1:51:43	3	OSPF neighbor up	10.56.57.90 OSP.	Cisco 7606	875	871		1
~	13705	02-Jul-	13 1	1:51:42	2	Device Reachable	10.56.57.90	Cisco 7606	627	627		1
~	28698	02-Jul-	13 1	1:51:02	2	Device Reachable	c7-npe1-76	Cisco 7604	961	961		1
~	26285	02-Jul-	13 1	1:49:3	5	VNE switched ba	GSR1	Cisco 12406	889	889		1
8	26242	02-Jul-	13 1	1:49:3	5	Device CPU usag. 🔊	GSR1	Cisco 12406	889	889		1
~	26199	02-Jul-	13 1	1:49:3	5	CPU utilization le?	GSR1	Cisco 12406	828	828		1
8	26156	02-Jul-	13 1	1:48:3	5	Device CPU usag. 🔊	GSR1	Cisco 12406	889	889		1
•	27719	02-Jul-	13 1	1:43:24	ł	Device Partially R	c7-npe1-76	Cisco 7604	961	961		1
	29712	02-Jul-	13.1	1:43:14	1	CPU utilization le	C9-UPE27	Cisco Catalyst 3750	876	876		1
∢ ( Displayin	g data fror	n the las	st 2 h	ours							Line 4 (1	►   50 Select



Icon	Color	Severity	Notes
	Critical	Red	
V	Major	Orange	Critical, Major, Minor, and Warning events
Δ	Minor	Yellow	are considered <i>flagging events</i> because they may require attention
•	Warning	Light Blue	
$\checkmark$	Cleared, Normal, or OK	Green	
	Information	Medium Blue	
?	Indeterminate	Dark Blue	

The following table shows the event severity indicators. The same colors and indicators are used for all event types—System, Audit, Tickets, Syslogs, and so forth.

## **Creating and Saving Filters for Tickets and Events**

These topics explain how to create and manage filters:

- Creating a New Filter and Saving It, page 12-7
- Determining Whether a Filter Is On and Turning It Off, page 12-10
- Modifying Saved Filters and Managing the Filter List, page 12-12

Both the Events client and Vision client provide a robust framework for creating filters that can be applied against ticket and event data. Filters are applied to the current display (the defaults are 6 hours for the Vision client and 2 hours for the Events client), but you can specify a different date range using the filter settings.

Filters apply *only to their event category*. In other words, if you create a filter for Service events, it cannot be used for Ticket events. In addition, filters apply *only to their client*. Filters created in the Vision client cannot be used in the Events client, and vice versa.

When you apply a filter to a display and then navigate to another part of the client, the filter remains enabled when you return to the original display (by default). Unless you save a filter, it is discarded when you log out of the client.

You can also save your filters for later use and, if desired, make them public so that other client users can apply them. If a filter is not shared, only the creator can use it. Shared filters can be accessed by all client users, regardless of their user privileges, but can only be edited or deleted by the filter creator, or users that have the same (or higher) user privileges as the filter creator. If users with lesser privileges want to create a similar filter, then can save a copy of the filter under a different name.

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# Note

The Events client global options that can affect filter behavior, such whether filtered content should be saved when you move between tabs. These settings are described in Setting Up Your Events View, page 6-4.

These topics explain how to create new and change existing filters:

- Creating a New Filter and Saving It, page 12-7
- Modifying Saved Filters and Managing the Filter List, page 12-12

### Creating a New Filter and Saving It

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Use this procedure to create filters in the Vision client and Events client.

### **Before You Begin**

When you consider a filter name, remember that filters are listed alphabetically. Space is limited, so use concise names.

Step 1 Make sure you are working from the desired filter category. The filters you can create and the devices you can choose depend on your user account permissions.)

Client	To find:	On:	Start from:
Vision client	Tickets	All or specified devices	Tickets tab from map
		Only a specific device	Tickets tab from inventory window
	Upgraded trap events, Syslog events, and Service events (upgraded events are	All or a group of devices	Latest Events tab from map
	events Prime Network recognizes and attempts to correlate)	Only a specific device	Network Events tab from inventory window
	Device configuration changes	For a specific device	Provisioning tab from inventory window

Client	To find:	On:	Start from:
Events client	Events related to the Prime Network system	N/A	System tab
	Events related to Prime Network security		Security tab
	Active and archived events that are generated by Prime Network	All or specified devices	Service tab
	All syslogs and traps handled by Prime Network	All or specified devices	Syslog tab Traps tabs
	Trap events and Syslog events that Prime Network cannot match with any of the rules that define events of interest (no further processing is performed)	All or specified devices	Standard tab
	Device configuration changes on managed devices	All or specified devices	Provisioning tab
	Users that executed device configuration changes on managed devices	All devices	Audit tab

### **Step 2** Open the filter dialog.

		Launch b	y:
Filter	Name and Description	Choosin g	Clicking
	—Finds events in the display that match the filter criteria. s client only: You can also find archived network events.	Edit > Filter	<b>V</b>
	<b>n Database</b> —Finds events in the database that match the criteria. You so find archived events.	Edit > Find	μů
Note	This choice is only available on the Events client. Specify a date range for best performance.		

Step 3 Configure your filter. Links to topics that describe the filter options are provided after this procedure.

In this example, a ticket filter is created to find unacknowledged Critical, Major, Minor, and Warning tickets created in a 24-hour period. This particular filter is launched from the Events client (the Vision client does not support the Archive criteria for tickets).

Filters			
Filter	[Untitled filter]	▼ Manage	Filters
Severity			
Indeterminate	Information	Cleared 🗹 Warning	
Minor	🗹 Major	✓ Critical	
General			
🗌 Ticket ID	Contains 👻		
Description	Contains 👻		
Location			
Root Event Time	From:	Wed 04 / Dec / 2013 🗘 🔻 13 : 27	: 29 🗘
	To:	Wed 04 / Dec / 2013 🗘 🔻 13 : 27	: 29 0
Last Modification Time	From:	Wed 04 / Dec / 2013 🗘 🔻 13 : 27	: 29
	To:	Wed 04 / Dec / 2013 + 13 : 27	
_			
Creation Time	From:	Tue 03 / Dec / 2013 🗘 🔻 00 : 00	
	To:	Wed 04 / Dec / 2013 🗘 🔻 00 : 00	: 00 🗘
Advanced			
Acknowledged	Not Acknowledged 👻		
Event Count	Greater Than 🛛 👻	Course Clines	
Affected Devices Co	Greater Than 🛛 👻	Save Filter	
Element Type		Save as a New Filter:	Unacknowledged-24Hours Share
Duplication Count	Greater Than 🛛 👻	Override an Existing Filter:	[Untitled filter]
Reduction Count	Greater Than 🛛 🔻		
Alarm Count	Greater Than 🛛 👻		Ok Cancel
Archived	true 💌		
Acknowledged by	Equal 👻		
Cleared by	Equal 👻		

#### Figure 12-3 Ticket Filter Example

- Step 4 Click Save and do the following in the Save Filter dialog box:
  - a. Enter a name (for example, Unacknowledged-24hours).
  - **b.** Check **Share** to make the filter available to other users *of the same client* (filters created in the Vision client cannot be used from the Events client). If you share a filter, users with the same or higher privileges will be permitted to edit your filter.
  - c. Click **OK** to close the Save Filter dialog box.
  - **d.** In the Filter or Find dialog box, click **OK** to apply your filter to the current display. The filter name is displayed under the table; for example, **Filter Enabled: Unacknowledged-24hours**.

If you move to another tab in the client, the filter is still enabled when you return to the Tickets tab. (You can change this and other filter behaviors by choosing **Tools > Options**. See Setting Up Your Events View, page 6-4.)

**Step 5** To clear a filter, choose **Edit > Clear Filter** (or click **V**).

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When log out and log back into the client, your filter will be available from the Filter drop-down list, as shown in the following figure.

### Figure 12-4 Filter Drop-Down List

ter Tickets				×
Filters				
Filter	Unacknowledged-24Hours	•	Manage Filters	
-	[Untitled filter]			
Severity	ASR5000-New			
🗌 Indeterminate	Affects5+Devices	Shared by FLiszt Shared by FChopin	ha	
	CriticalMajor-Last24Hours	Shared by FChopin		
🗹 Minor	Unacknowledged-24Hours			

Figure 12-4 shows the new filter along with these pre-existing filters:

- ASR500-new (created by the current user, JSBach).
- Affects5+Devices, a shared filter created by user FLiszt.
- CriticalMajor-Last24Hours, a shared filter created by FChopin.

Any filters created by other users but *not* shared are not displayed. Only the filter creators can see those filters.

For information on the different filter criteria you can use, see:

- Viewing Network Events (Service, Trap, and Syslog Events), page 12-13
- Viewing Tickets, page 12-17
- Viewing Non-Network Events (Audit, Provisioning, System and Security Events), page 12-17
- Viewing Standard Traps and Syslogs Not Recognized by Prime Network, page 12-19

### Determining Whether a Filter Is On and Turning It Off

If the **v** icon appears above a table, a filter is enabled. To turn the filter off, click the icon or choose **Edit > Clear Filter** or **Edit > Clear Find**.

If a basic filter is applied, the client displays **Filter Enabled** at the bottom of the events table. If the display is using a saved filter, the filter name is also displayed, as in Figure 12-7. In this example, a user has applied a saved filter named **Unacknowledged-24Hours** to the display.

Figure 12-5 Basic Filter—Saved Filter Applied to Display

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Severity	Ticket ID Notes	Last Modific 💎 🏷	Root Event Time	Description	Location	Element Type	Acknowledged
V	324	04-Dec-13 15:36:32	04-Dec-13 15:25:34	Task Failed	10.56.22.105	Cisco ASR 5000	No
V	204	04-Dec-13 15:31:38	04-Dec-13 00:57:31	CPU utilization ex. 🕽	7600_2	Cisco 7613	No

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If the display is using a basic filter that was not saved, the client displays **Filter Enabled: Untitled**, as illustrated in Figure 12-6.

: » (	Ð 🛐 🕈 🛤 🛛	🛃 📃 📕 🖷					
Severity	Event ID	Time V	Description	Location	Element Type	Alarm ID	Ticket ID 🕐
V	17278653431865_1	04-Dec-13 15:31:37	CPU utilization exceeded upper threshold	7600_2	Cisco 7613	204	204
1	17282948399161_1	04-Dec-13 15:31:37	Device CPU usage has consecutively crossed high $$	7600_2	Cisco 7613	237	237
~	17257178595385_1	04-Dec-13 15:26:28	CPU utilization less than lower threshold	7600_2	Cisco 7613	204	204
V	17239998726201_1	04-Dec-13 15:22:19	CPU utilization exceeded upper threshold	7600_2	Cisco 7613	204	204
1	17244293693497_17	04-Dec-13 15:22:19	Device CPU usage has consecutively crossed high?	7600_2	Cisco 7613	237	237
~	17227113824313_1	04-Dec-13 15:17:07	CPU utilization less than lower threshold	7600_2	Cisco 7613	204	204
V	17188459118649_1	04-Dec-13 15:08:01	CPU utilization exceeded upper threshold	7600_2	Cisco 7613	204	204
1	17192754085945_1	04-Dec-13 15:08:01	Device CPU usage has consecutively crossed high?	7600_2	Cisco 7613	237	237
~	17175574216761_1	04-Dec-13 15:03:26	CPU utilization less than lower threshold	7600_2	Cisco 7613	204	204
1	17154099380281_1	04-Dec-13 14:59:19	Device CPU usage has consecutively crossed high?	7600_2	Cisco 7613	237	237
V	17149804412985_1	04-Dec-13 14:59:19	CPU utilization exceeded upper threshold	7600_2	Cisco 7613	204	204
~	17115444674617_1	04-Dec-13 14:44:27	CPU utilization less than lower threshold	7600_2	Cisco 7613	204	204
1	17012365459513_17	04-Dec-13 14:02:08	Device CPU usage has consecutively crossed high?	7600_2	Cisco 7613	237	237
< ( Displavin	g data from the last 2 ho	ours Filter enabled:	Untitled			Line	► 0 (Size 13)

Figure 12-6 Basic Filter—(Unsaved) Filter Applied to Display

If a Find in Database filter is applied to an Events client display, the client displays **Find Results** at the bottom of the events table as illustrated in Figure 12-7.

Figure 12-7	Find in Database-	-Filter Applied	(Events Client Only)

: »	\$ 3	P 🕅 🖸 🗏				
Severity	Event ID	Time V	Description	Location	Prime Login User Device Login User	Status
V	5905	04-Dec-13 15:05:22	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	5899	04-Dec-13 15:05:20	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	3634	04-Dec-13 03:30:20	$\ensuremath{Execution}$ of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	3424	04-Dec-13 03:17:08	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	2915	04-Dec-13 02:02:02	$\ensuremath{Execution}$ of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	2911	04-Dec-13 02:02:00	$\ensuremath{Execution}$ of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	2790	04-Dec-13 01:25:11	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	2646	04-Dec-13 01:14:31	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	2484	04-Dec-13 00:13:40	$\label{eq:execution} \mbox{ Execution of script CONFIG-FETCH-VDC-TELNET has failed}.$	nm-n5k-04-unm11	root	Fail
V	2475	04-Dec-13 00:12:27	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
V	1656	03-Dec-13 14:00:46	Execution of script CONFIG-FETCH-VDC-TELNET has failed.	nm-n5k-04-unm11	root	Fail
4						►
Find resu	ilts				Li	ne 0 (Size 11)

To disable any type of filter, do the following:

	Disable by	*
Filter Type	Choosing	Clicking
Basic filter	Edit > Clear Filter	<b>T</b>
Find in Database filter (Events client only)	Edit > Clear Find	U

To clear the Find in Database filter, click the Find in Database filter icon in the toolbar and choose Clear.

### Modifying Saved Filters and Managing the Filter List

To manage existing filters, open a filter dialog and click **Manage Filters**. In addition to filters created by the user, the Edit Filter List dialog provides an alphabetical lists of all shared filters. You can only rename or delete a filter you are the filter creator or if you have the same or higher permissions as the filter creator. If a filter is shared, the name of the filter creator is also displayed.

In this example, the current user has lesser permissions than the filter creators, so the user can employ the filters, but cannot edit or delete the filters. However, the user could create a similar filter by saving it under another name.

Filters					
Filter	[Untitled filter]	-	Manage Filters	J	
Severity					
🗌 Indeterminate	Edit Filter List				×
Minor	Find :	1 2l 🗸 🕆 🖉 🐺			
General	Name 🔁 🗸	Created by	Shared	Rename	Delete
🔲 Ticket ID	Affects5+Devices	FLiszt	$\checkmark$	ΓŢ	×
Description	ASR5000-New	JSBach	$\checkmark$	ΓŢ	×
	CriticalMajor-Last24Hours	FChopin	$\checkmark$	ΓŢ	×
_	Unacknowledged-24Hours	PITchaikovsky	$\checkmark$	ΓŢ	×
Root Event Time					
Last Modification Time					
Creation Time					
	•				Line 0 (Size 4)
					Line 0 (Size 4)

### Figure 12-8 Managing Saved Filters

# Finding Archived Tickets, Service Events, Syslogs, and Traps

The Prime Network database contains active and archive partitions. When a ticket or event is archived, it is moved to the archive database partition and is considered inactive, which means Prime Network will not perform any more actions on the ticket or event. In most cases, once a ticket is archived, you need to use a filter to view it and its associated events. Tickets are normally archived if they have been clear for 1 hour (no new events have been associated to the ticket). Cleared tickets can be archived sooner using the remove operation. For detail about the Prime Network clearing and archiving mechanism, see Clearing, Archiving, and Purging and the Oracle Database, page 10-12.

Some archived events are displayed in the clients, but only if those events fall within the GUI client's display parameters (by default, the last 2 hours for the Events client and the last 6 hours for the Vision client).

- Standard events—Standard events are events for which Prime Network only performs basic parsing; they are not processed for correlation. Standard events are archived as soon as they are received but are displayed in the **Standard** tab in the Events client, and in the **Network Events** tab in the Vision client map (or list view). If enabled, standard events are also shown in the **Latest Events** tab in the Vision client NE inventory window.
- Events associated with recently archived tickets—Tickets are normally archived after being cleared for 1 hour, but the Vision client reflects events from the past 6 hours. For this reason, some archived events may appear in the **Network Events** tab in the Vision client map or list view, and in **Latest Events** tab in the Vision client NE inventory window.
- Events that were not correlated to other events—These events are archived and displayed in the Latest Events tab in the Vision client NE inventory window.

Archived events that fall outside of the Events client and Vision client display parameters can only be viewed from the Events client using a filter. To find an archived ticket or network events, use the standard filters and set the Archive setting to **true**. See these topics for more information:

- Creating and Saving Filters for Tickets and Events, page 12-6 for a description of how to create filters using these tools
- Viewing Network Events (Service, Trap, and Syslog Events), page 12-13
- Viewing Tickets, page 12-17
- Viewing Non-Network Events (Audit, Provisioning, System and Security Events), page 12-17
- Viewing Tickets, page 12-17

# Viewing Network Events (Service, Trap, and Syslog Events)

You can view all active and archived Service, Trap, and Syslog events using Events client filters. All network events provide the following information (other information is also supplied but those fields are self-explanatory). You can use this and other criteria for event filters as described in Creating and Saving Filters for Tickets and Events, page 12-6.

Tab	Description
Details tab	• Detection Type—How the event was detected: V1 Trap, V2 Trap, V3 Trap, Syslogs, or Service event.
	• Alarm ID and Ticket ID—Identifier for alarms and ticket that the event is associated with (if applicable).
	• Causing Event—Event that caused the network event (if applicable)
	• Category—Fault category, one of the following: Communications, Quality of Service, Processing error, Environmental, Equipment, or Undetermined.
	• Nature—Whether the event will automatically clear:
	<ul> <li>ADAC (Automatically Detected Automatically Cleared)—Clearing is automatically detected and performed by the system (for example, Link Down).</li> </ul>
	<ul> <li>ADMC (Automatically Detected Manually Cleared)—Clearing requires manual intervention (for example, a fatal error).</li> </ul>
Affected Parties	Service resources (pairs) that are affected by the event. It lists of all the endpoints that are affected. See Viewing a Ticket's Affected Parties Tab (Resource Pairs), page 11-15. (This tab is only provided for events that calculate impact analysis. It has no relation to the Affected Devices count.)
Advanced	• Duplication Count—(For flapping) Total number of event duplications in the flapping alarm. (This number is always 1 for regular non-flapping events.) For example, this Link Down Flapping alarm would have a duplication count of 3:
	link down -> link up -> link down -> link up -> link down -> link up
	For tickets, this number is the sum of the duplication counts for all events and alarms in the ticket.
	• Reduction Count—(For flapping) Total number of event instances in the flapping alarm. (This number is always 1 for regular non-flapping events.).
	Using the previous example, the Link Down Flapping alarm would have a reduction count of 6 (with 6 events listed in the History tab).
	For tickets, this number is the sum of the reduction counts for all events and alarms in the ticket.
	• Alarm Count—Total number of alarms associated with the ticket.
	• Affected Devices—Total number of NEs affected by the ticket. (You can view the devices in a Vision client map)

 Table 12-2
 Common Information Provided for Service, Trap, Syslog, and Ticket Events

For information on the other fields that are displayed, see:

- Service Events, page 12-14
- Syslogs and Traps, page 12-15

### **Service Events**

Service events are generated by the Prime Network system in response to changes in the network. In response to these events, Prime Network will generate Service events, such as BGP Neighbor Loss, MPLS TP Tunnel Down, Link Down, Adaptive Polling (for high CPU issues), and so forth.

If you are looking for specific Service events, use the Events filters. You can search for events based on location (devices), a string included (or not included) in the description, and other common filter criteria (severity, description, and so forth). Once you create the filter, you can search for recent events or all events that are stored in the Oracle database. To create a filter, see Creating and Saving Filters for Tickets and Events, page 12-6. To find archived Service events, see Finding Archived Tickets, Service Events, Syslogs, and Traps, page 12-12.

Refer to these documents for extensive explanations about supported Service events, descriptions, whether they are ticketable, whether they auto-clear, and so forth, *Cisco Prime Network 4.2.2 Supported Service Alarms*.

### **Syslogs and Traps**

When a device generates a syslog or trap, Prime Network attempts to match it to a predefined set of rules to determine if it is of interest to Prime Network. If it is of interest, Prime Network generates a syslog or a trap event. If not, it is saved to the database. These are other ways to view traps:

- Syslogs and traps handled by Prime Network but not processed for correlation—Click the **Standard** tab. (See Viewing Standard Traps and Syslogs Not Recognized by Prime Network, page 12-19).
- Archived syslogs and traps—Create a filter and set the Archive field to true.

In Prime Network, all syslogs and traps are configured to clear automatically, except:

- Syslogs and traps that are ticketable.
- A few important syslogs and traps that do not have a corresponding Service event. For example, a device that suddenly loses power does not send a Down event. Instead, it sends a cold start trap when it subsequently recovers. This trap is not cleared automatically because no corresponding Down event exists. If the cold start trap is automatically cleared, the device-recovery notification will be lost.

When you double-click a trap event, the Events client displays the Details, Affected Parties, and Advanced Tabs. These details provide the same information that is provided for tickets (see Getting a Ticket's Troubleshooting Tips And Basic Information, page 11-13).

	Field	Description
V1, V2,	Version	SNMP version: version 1, version 2c, or version-3.
and V3 Traps	Community String	Community that the device sends in the Protocol Data Unit (PDU).
	Error Status	Error status: No Error, Too Big, No Such Name, Bad Value, Read Only, and General Error.

Trap events also display a **Trap** tab with the following information (depending on the trap version):

	Field	Description			
V1 and	Values Table				
V2 Traps	Translated OID	String representation of the OID. For example, 1.3.6 is translated into iso.org.dod where:			
		• 1 represents iso.			
		• 3 represents org.			
		• 6 represents dod.			
	Translated Value	String representation of the OID value. For example, 1.3 is translated to iso(1).org.10, or a specific value, such as "down" or "4 days, 20 hours, 32 minutes, 11 seconds."			
	OID	OID that is not translated. It is a dot notation representation of the OID, such as 1.3.6.1.4.1.9.			
	Value	Value that is not translated.			
V3	Values Table				
Traps	Trap Type OID	Trap object identifier.			
	Translated Enterprise	Translation of the OID using the MIB. For example, an enterprise OID of .1.3.6.1.2.1.88.2 is displayed in this column as .iso.org.dod.internet.mgmt.mib-2.dismanEventMIB.dismanEventMIBNotifica tionPrefix.			
	Enterprise	Enterprise OID for the trap, representing the company or organization that is associated with the trap.			



If a SNMP agent is enabled in a VM, then all the traps that are generated from the VM should be associated to **IManagedElement** node of the VNE.

If you are looking for specific traps, create a trap filter as described in Creating and Saving Filters for Tickets and Events, page 12-6.

ॐ₄ Note

For IPv6, we need to configure device to send events on specific ports (1514,1162 and 1161). For example, to configure on device: **snmp-server host 10.105.39.217 version 2c public udp-port 1162** 

Refer to these documents for extensive explanations about supported traps and syslogs, including their descriptions, whether they are ticketable, whether they auto-clear, whether they are considered flapping events, and so forth:

- Cisco Prime Network Supported Syslogs
- Cisco Prime Network Supported Traps

# **Viewing Tickets**

The Events and Vision client display the same ticket information, and the same operations can be performed from both clients. However, if you want to view archived tickets, use the Events client filters. See Viewing Non-Network Events (Audit, Provisioning, System and Security Events), page 12-17. To view Resync service alarm ticket information, see the topic Viewing Resync Alarm Details in Prime Network, page 11-5

Refer to Managing Tickets with the Vision Client, page 11-1 for complete information on how to find and manage tickets.

# Viewing Non-Network Events (Audit, Provisioning, System and Security Events)

Description

restore operation

filter, see Creating and Saving Filters for Tickets and Events, page 12-6.

### Audit Events (Executed Commands)

Field

Command Name

**Command Signature** 

**Command Parameters** 

Audit events provide information about configuration commands that are executed on the Prime Network gateway. This can include NE right-click commands, CCM and Compliance Audit operations, and so forth. For example, if a CCM user activated an IOS-XR image, the Events client would display an event **Activation was executed by** *user* **on the device** *device* **for the image**.

The Provisioning tab provides the results of the command. You would find an associated Provisioning event that would list the results (**Execution of script !NEIMActivateIOSXRPackage** *status*) along with the exact commands sent to and received from the device.

Audit events also provide the following information, which you can also use as criteria for an Audit event filter:

Arguments used to create the command (often left blank).

Command parameters issued with the command, such as CONFIG-DEPLOY for the CCM restore operation

Audit-specific command name, such as CCM\_Config\_Restore for a CCM

Originating IP	IP address of the client that issued the command (127.0.0.1 is the gateway)
When you double-click th	e event, Prime Network displays the commands that were sent from Prime

Network to the device. If you are looking for specific Audit events, use the Events filters. You can search for events based on the originating IP address, strings included (or not included) in the command name, signature, or parameters, and other common filter criteria (severity, description, and so forth). Once you create the filter, you can search for recent events or all events that are stored in the Oracle database. To create a

### **Provisioning Events (Device Configuration Results)**

Provisioning events display the results of device configuration operations. For example, if a Vision client user right-clicks an NE and chooses **Commands** > **Show** > **Users** (**Telnet sessions**), the Provisioning tab creates a new event called Execution of script !**Device\_ShowUser\_xr succeeded**. The event includes the device the command was executed on and the status of the command (Configuring, Success, Fail). It also includes this information, which you can use as criteria for a Provisioning event filter:

Field	Description
Prime Login Username	Username of the user that executed the command.
Device Login Username	<ul> <li>Username that was used to access the device. It can be either of the following:</li> <li>From VNE Login—Username specified when the device was added to Prime Network</li> <li><i>username—username</i> entered when the user ran the command and was prompted for their credentials.</li> </ul>

Provisioning events display the results of operations performed by other Prime Network features such as Change and Configuration Management, Command Manager, and Transaction Manager. When you double-click the event, Prime Network displays the results returned from the device and the operation status.

If you are looking for specific Provisioning events, use the Events filters. You can search for events based on location (devices), the Prime or device username, the status (success, fail, configuring, unknown), and other common filter criteria (severity, description, and so forth). Once you create the filter, you can search for recent events or all events that are stored in the Oracle database. To create a filter, see Creating and Saving Filters for Tickets and Events, page 12-6.

### **Prime Network Security Events**

Security events are related to user authentication, session management, and information about who is making system changes (disabling and enabling AVMs, adding new VNEs to the system, and so forth). An example is **User user authenticated successfully**. If you double-click the event, you can find out which client the user logged into.

If you are looking for specific Security events, use the Events filters. You can search for events based on a string that is included (or not included) in the username, the IP address where the event was triggered, and other common filter criteria (severity, description, and so forth). Once you create the filter, you can search for recent events or all events that are stored in the Oracle database. To create a filter, see Creating and Saving Filters for Tickets and Events, page 12-6.

For information on how to respond to specific Security events (including their probable cause), refer to *Cisco Prime Network Supported System and Security Events*.

### **Prime Network System Events**

System events represent the everyday working of Prime Network and its components. Examples are:

- State or reachability changes in Prime Network components
- Database events (ticket archiving, disk space, dropped events, synchronization issues)
- Unit protection (standby unit) events

Most System events occur on AVM 11 (the gateway). If an event occurs on device, a hyperlink to the device is provided in the event details. For information on how to respond to specific System events (including their probable cause), refer to *Cisco Prime Network Supported System and Security Events*.

If you are looking for specific System events, use the Events filters. You can search for events based on a string that is included (or not included) in the description, specific devices, and other common filter criteria (severity, time, and so forth). Once you create the filter, you can search for recent events or all events that are stored in the Oracle database. To create a filter, see Creating and Saving Filters for Tickets and Events, page 12-6.

# Viewing Standard Traps and Syslogs Not Recognized by Prime Network

Standard events are events that Prime Network could not match with any of the rules that define events of interest. Prime Network does a best effort at extracting information from these syslogs and traps, but does not process them for correlation. Standard events are saved to the database and can be viewed in the Standard tab. You can also create an event filter for Standard syslog and trap events using the same criteria for events displayed in the Syslogs tab and the V1 Trap, V2 Trap, and V3 Trap tabs. See Viewing Network Events (Service, Trap, and Syslog Events), page 12-13 for more information.

Standard events also appear in the Vision client:

- In the Latest Events tab in a map view (if enabled from the Administration client)
- In the Network Events tab in a device inventory view

# **Changing How Often Event Information is Refreshed**

By default, the Events client displays event information from the last 2 hours (up to 50 records per table). Data is refreshed when you log into the Events client, and when you move between the Events tabs. To refresh the data in a table you are viewing, click **Refresh Now**. You can also enable the auto-refresh mechanism which will update the data every 60 seconds. The manual and auto refresh buttons are shown below.

Button	Name	Function
٢	Refresh Now	Manually refreshes the events list (same as choosing <b>View &gt; Refresh</b> ).
2	Auto Refresh	Enables auto refresh of events tables (every 60 seconds). Filters remain intact.
		<b>Note</b> By default, tabular data is not refreshed on an ongoing basis.

The following table shows the default settings for data display and refresh, and how you can adjust them.

To control:	<b>Default Setting</b>	To change setting:
Updating data when you log into Events client	Enabled	Switch to Find in Database mode (see Creating a New Filter and Saving It, page 12-7)
Updating events data whenever you move between Events tabs ("Find" mode)	Enabled	Choose Tools > Options

To control:	<b>Default Setting</b>	To change setting:
Updating the displayed data:		
• On an ongoing basis, and	Disabled	Click Auto Refresh
• At a specific interval	60 seconds	Choose Tools > Options
How much data to display in the events	2 hours	Choose Tools > Options
tables (age and number of records per page)	50 records	Note Increasing the interval beyond 2 hours can adversely affect the display performance.

# **Exporting Events Data**

When you export data, it is saved as a CSV file. Prime Network will export all of the data listed in the table, up to the number of records specified in the Events client Options dialog. You can check the setting by choosing **Tools > Options** from the main menu.

To export an Events table to a CSV file:

Step 1 Choose File > 1	Export.
------------------------	---------

- Step 2 Browse to the directory where you want to save the file and enter a name for the file.
- Step 3 Click Save. The displayed records are saved in a CSV file.

## **Changing the Events Client Defaults**

Events client users can change their default settings. This includes:

- · Saving filters and using them by default when you open Events
- How many records to display in the Events client
- How many records can be exported at one time
- · How often data should be refreshed
- The age of data to display
- Enabling manual event retrieval (so that events are not retrieved immediately when you first log in or when you switch between tabs)

To change these settings, see Setting Up Your Events View, page 6-4.