

Syslogs and Traps

SL1 version 11.1.0

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Chapter

Introduction to Syslogs and Traps

Overview

This manual describes how Syslog and SNMP Trap messages are processed by SL1 appliances that perform Message Collection.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon (三).
- To view a page containing all the menu options, click the Advanced menu icon (…).

This chapter includes the following topics:

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Appliances that Process Syslog and SNMP Trap Messages

In SL1, three types of Appliances can process Syslog and SNMP Trap messages from monitored devices. The following appliances can perform the Message Collection function:

- All-In-One Appliances
- Message Collectors
- Data Collectors

NOTE: A Data Collector can perform Message Collection only if that Data Collector is in a Collector Group that contains no other Data Collectors

For more information about SL1 appliances functions and architecture, see the Architecture manual.

For information on how to create a collector group, see the **System Administration** manual.

Multi-byte Character Support

SL1 supports inbound syslog and SNMP trap messages that include multi-byte characters. Multi-byte characters can be displayed in the following pages:

- The Event Console page ([Events] tab) can display multi-byte characters in syslog and SNMP trap event messages.
- The **Device Logs** page (**[Logs]** tab under the Device Administration panel and the Device Reports panel) can display multi-byte characters in syslog and SNMP trap log messages.
- The *Ticket Description* and *Ticket Notes* fields in the *Ticket Editor* page can display BMP characters populated from an event message by an automation action. SMP characters are not supported in these fields.

Multi-byte characters can be included in the following fields and functions:

- Outbound SNMP Trap messages generated by the automation engine can now include an event message that contains multi-byte characters.
- Multi-byte characters can be included in the Event Message, First Match, Second Match, and Identifier Pattern fields in the Event Policy Editor page.
- Multi-byte characters can be included in the Varbind OID Pattern field in an SNMP Trap Filter (Registry > Events > SNMP Trap Filters).
- Multi-byte characters can be included in the *Expression Match* field in a Redirect Policy ([Redirects] tab under the Device Administration panel).

Chapter

2

SNMP Traps

Overview

This chapter describes how SL1 handles SNMP traps.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon (三).
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This chapter includes the following topics:

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What Happens When a Message Collector Receives an SNMP Trap

When an appliance that performs Message Collection receives an SNMP Trap, it performs the following:

- 1. If the trap matches a defined filter, the trap is discarded. See *Filtering Traps*.
- 2. Matches the IP address of the sender to an IP address of a device monitored by a collector group that includes the Appliance.
 - If the IP address of the sender does not match an IP address of a device monitored by a collector group that includes the Appliance, the message is discarded and a log message is generated. See *Traps From Unknown Devices*.
- 3. Using the MIBs compiled on the SL1 system, translates varbind OIDs to symbolic values.

NOTE: By default, Message Collectors and Data Collectors are not populated with information about all varbind OIDs. The first time a Message Collector or Data Collector attempts to translate a specific varbind OID, that varbind OID will not be translated, but information about that varbind OID will be added to theMessage Collector or Data Collector. All instances of a varbind OID after the first will then be translated correctly. To make SL1 translate the first occurrence of a varbind OID correctly, you can manually run a process that pre-populates Message Collectors and Data Collectors with information about all varbind OIDs. For steps on how to run this process, see the Manually Updating Varbind OIDs.

- 4. Compares the trap to the defined trap event policies:
 - If the trap does not match an event policy, the trap is logged in the Device Logs for the device that sent the trap. See *Traps That Do Not Match Event Policies*.
 - If the trap does match an event policy, the Source Host Varbind value for the event policy is evaluated. If the Source Host Varbind value matches a varbind OID in the trap, and the value of the varbind matches an IP address or hostname of a device monitored by a collector group that includes the Message Collector, the event is generated and aligned with the device with that IP address or hostname.
 - If the trap does match an event policy and is not realigned using the Source Host Varbind value, the event is generated and aligned with the device the trap was matched with in step two.

NOTE: By default, the event policy "Trap: Unknown trap received" is enabled. This event policy matches all traps that do not match other event policies.

For more information on Trap events, see the *Events* manual.

Traps That Do Not Match Event Policies

If an Appliance that performs Message Collection receives a trap that:

- Is from a device that is monitored by a collector group that includes the Message Collector.
- Does not generate an event.

SL1 will log the receipt of the trap in the device logs for the device. If SL1 includes a compiled MIB that contains OIDs used in the received trap, SL1 will include the symbolic translation of those OIDs in the log message. The Device Log will have the following format:

Trap Received | Trap Detail: varbind OID or symbolic translation: varbind data type: varbind data; (Trap OID: trap OID)

NOTE: Device Logs that are not associated with an Event are retrieved from Collection Units at five-minute intervals. It may take up to five minutes for traps that do not match event policies to appear in the Device Logs.

Traps From Unknown Devices

If an Appliance that performs Message Collection receives a trap from an unknown device, a "From unknown device: <*ip-address-of-unknown-device*>, received the following Trap message:" event will be generated. An unknown device is defined as either:

- A device monitored by the SL1 system, but by a collector group that does not include the Appliance.
- A device not monitored by the SL1 system.

The "From unknown device: <*ip-address-of-unknown-device*>, received the following Trap message:" event will appear in the Event Console page associated with the System organization.

For the first trap received from an unknown device, the event will have a Severity value of "Notice". If multiple traps are received from the same unknown device, additional events will be generated at the following thresholds:

- 10, 25 Traps Received. Severity value of "Minor".
- 100 Traps Received, and every 100 traps up to and including 900 Traps Received. Severity value of "Minor".
- 1,000 Traps Received, and every 1,000 traps up to and including 9,000 Traps Received. Severity value of "Minor".
- 10,000 Traps Received, and every 10,000 traps received thereafter. Severity value of "Major".

NOTE: The counters for the number of traps received from unknown devices will be reset to zero if the Event Engine on the Appliance that performs Message Collection is restarted, or the Appliance is restarted.

NOTE: The default threshold for incoming traps is set to 25 messages per second to prevent degraded performance.

Filtering Traps

In some situations, you might want to filter or limit the traps that are processed by SL1. SNMP Trap Filters allow you to define policies that filter incoming traps to an Appliance that performs Message Collection. When a trap is filtered, the Appliance that performs Message Collection receives the trap, but does not store the trap, does not act on the trap, and does not pass the trap on to be examined by the ScienceLogic event engine.

You can filter incoming SNMP traps using one, multiple, or all of the following parameters:

- IP or hostname of the host that sent the trap. You can also specify "all hosts"
- Trap OID
- Varbind OID
- Varbind content

So you can:

- Filter all incoming traps from a specific host.
- Filter incoming traps with a specific trap OID from all hosts.
- Filter incoming traps with a specific trap OID and from a specific host.
- Filter traps with a specific trap OID and specific varbind OID from all hosts.
- Filter traps with a specific trap OID and specific varbind OID from a specific host.

To create an SNMP Trap Filter, perform the following steps:

- 1. Go to Registry > Events > SNMP Trap Filters. The **SNMP Trap Filters** page is displayed.
- 2. In the **SNMP Trap Filters** page, select the **[Create]** button. The **SNMP Trap Filter** modal page is displayed.
- 3. In the **SNMP Trap Filter** modal page, supply a value in the following fields:
 - *Filter State*. Specifies whether the SNMP Trap Filter is currently active. When the SNMP Trap Filter is active, all incoming traps that match the criteria in the filter are dropped, and the Appliance does not act upon them. Choices are "Enabled" or "Disabled".
 - Host Filter. Specifies hosts to filter-on. All incoming traps sent from the specified host(s) that match the other parameters will be dropped by the Message Collector.

- If you select the checkbox next to the field name, you can enter a host name or an IP address. All incoming traps from the specified host that also match the other parameters will be dropped by the Appliance.
- If you do not select the checkbox next to the field name, this field will contain the value All. In this case, incoming traps from all hosts that also match the other parameters will be dropped by the Appliance.
- **Trap OID Filter**. Specifies the trap OID to filter on. All incoming traps that are named with the specified OID(s) and match the other parameters will be dropped by SL1.
 - If you select the checkbox next to the field name, you can enter an OID value in standard dotted-decimal notation in this field. All incoming traps that are named with the specified OID that also match the other parameters will be dropped by the Appliance.
 - If you do not select the checkbox next to the field name, this field will contain the value All. In this case, all incoming traps named with all OIDs that also match the other parameters will be dropped by the Appliance.
- Varbind OID Filter. A varbind consists of an object, specified by an OID, and its value. In this field, you specify the varbind OID to filter on. All incoming traps that contain the specified varbind OID and also match the other parameters will be dropped by the Appliance.
 - If you select the checkbox next to the field name, you can enter an OID value in standard dotted-decimal notation in this field. All incoming traps that contain that varbind OID and match the other parameters will be dropped by the Appliance.
 - If you do not select the checkbox next to the field name, this field will contain the value All. In this case, all incoming traps that contain all OIDs will be dropped by the Appliance.
- Varbind OID Pattern. A varbind consists of an object, specified by an OID, and its value. In this field, you specify a pattern to search for in the varbind value. All incoming traps that contain a varbind value with this pattern and also match the other parameters will be dropped by the Appliance.
 - If you select the checkbox next to the field name, you can enter an alpha-numeric pattern, including multi-byte characters, to search for. All incoming traps that contain a varbind with that value and also match the other parameters will be dropped by the Appliance.
 - If you do not select the checkbox next to the field name, this field will contain the value All. In this case, all incoming traps that contain all varbind values that also match the other parameters will be dropped by the Appliance.
- 4. Select the **[Save]** button to save the new SNMP Trap Filter.
- 5. The new SNMP Trap Filter should now appear in the **SNMP Trap Filters** page. If the filter is enabled, SL1 will not store or process traps that meet the filter criteria.

To edit an SNMP Trap Filter, perform the following steps:

- 1. Go to Registry > Events > SNMP Trap Filters. The **SNMP Trap Filters** page is displayed.
- 2. In the SNMP Trap Filters page, find the filter you want to edit. Select its wrench icon (*P*). The SNMP Trap Filter modal page is displayed.
- 3. In the SNMP Trap Filter modal page, change the values in one or more fields.
- 4. Select the **[Save]** button to save your changes to the SNMP Trap Filter.

To delete an SNMP Trap Filter, perform the following steps:

- 1. Go to Registry > Events > SNMP Trap Filters. The SNMP Trap Filters page is displayed.
- 2. In the **SNMP Trap Filters** page, find the filter you want to delete. Select its checkbox (2). To select all checkboxes for all filters, select the big checkbox icon (2) at the top of the page.
- 3. In the Select Action drop-down list, select Delete filter definitions. Select the [Go] button.
- 4. The selected SNMP Trap Filters will be deleted. SL1 will stop filtering the incoming SNMP traps that were previously filtered with the deleted SNMP Trap Filters.

Global Settings that Affect SNMP Trap Processing

The following global setting affects how SL1 processes SNMP traps:

• use_v1trap_envelope_addr. In environments where Network Address Translation is performed on SNMP v1 trap messages sent to SL1, you can configure SL1 to read the envelope address (the address of the host sending the trap) instead of the agent address (the IP address variable sent as part of the trap). To use the envelope address instead of the agent address for SNMP v1 trap messages, the use_v1trap_envelope_ addr=1 configuration option can be added to the [LOCAL] section of silo.conf on Message Collectors, Data Collectors that perform message collection, and All-In-One Appliances. If use_v1trap_envelope_addr is not defined in silo.conf or use_v1trap_envelope_addr=0 is defined, SL1 will use the agent address for SNMP v1 trap messages.

To add a settings to the silo.conf file on an appliance:

- 1. Either go to the console of the SL1 appliance or use SSH to access the server.
- 2. Login as user **em7admin** with the password you configured during setup.
- 3. At the shell prompt, enter the following:

sudo visilo

- 4. On a line of its own, add the new entry.
- 5. Save your changes and exit the file (:wq).

System Settings that Affect SNMP Trap Processing

The following system setting affects how SL1 processes SNMP traps:

- Ignore trap agent-addr varbind. If you select this checkbox, SL1 will align the SNMP trap with the forwarder (last hop) instead of searching for the IP address of the originator of the trap.
- Enhanced OID Translation. If selected, ensures that varbind OIDs that use multi-dimensional indexes are translated correctly. The symbolic translation of the known portion of the OID is included in the log message associated with the trap.

NOTE: Enabling the **Enhanced OID Translation** option might affect performance on large environments with a large number of traps.

To enable these settings:

- 1. Go to the **Behavior Settings** page (System > Settings > Behavior).
- 2. Select the checkbox next to the setting or settings you want to enable:

Behavior Settings			•	Reset Guide
Interface URL	http://em7.mydomain.com		Enable LLDP Topology (BETA)	
Force Secure HTTPS		Enable Community String Indexing (VLAN Topology)		
Password Expiration	[disabled]	Default Country	[United States]	\sim
Password Reset Interval	[None]	System Timezone	[L UTC]	~
Password Hash Method	[MD5 (legacy)]	NFS Detection Disable		
Password Minimum Length	0	Port Polling Type	[Half Open]	~
Account Lockout Type	[Lockout by Username (default)]	Initial Discovery Scan Level	[4. Advanced Port Discovery]	~
Account Lockout Attempts	[1 attempts]	Rediscovery Scan Level (Nightly)	[4. Advanced Port Discovery]	~
Login Delay		Discovery Scan Throttle	[Disabled]	~
	[Disabled]	Port Scan All IPs	[1. Enabled]	~
Single Instance Login (Admins)	[Disabled]	Port Scan Timeout	[120000 Msec.]	~
Single Instance Login (Users)	[Disabled]	Restart Windows Services (Agent required)	[0. Disabled]	~
	[1 hour] ~	Hostname Precedence	[SNMP System Name]	~
Lockout Contact Information	800-SCHLOGIC	Event Interface Name Format	(name)	
Login Header Title		DNS Hostnames	[Strip Domain Name (Hostname)]	
System identifier		Event Clearing Mode	(~
Ping & Poll Timeout (Msec.)	[1000]		[Clear All in Group]	~
SNMP Poll Timeout (Msec.)	[1000]	Maintenance Minimum Severity	[0. Healthy]	~
SNMP Failure Retries	[1]		[0. Healthy]	\sim
Initially Discovered Interface Poll Rate	[5 minutes]		[4 months]	~
DHCP Community Strings	public		[1 week]	~
(Comma seperated)		Asset Warranty Expiry	[1 month]	\sim
Strip FQDN From Inbound Email Device Name	[Enabled]	Domain Name Expiry	[1 month]	~
Inbound Email Alert Message	I Email Message Body Only 1	Validate Phone Number	[Disabled]	~
Event Console Ticket Life Ring Button Behavior	[Create / View EM7 Ticket]	Dashboard Maximum Series Count Per Widget	[8]	~
Automatic Ticketing Emails	[Enabled]	Prefer Global Device Summary Dashboard Over Category/Class		
-	[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[Enable CBQoS Collection	D	
	Display Previous Login In Footer	Enable Variable Rate Interface Counters		
Prevent Loading Interface in External Frames	Ignore trap agent-addr varbind	Enhanced OID Translation		
Hide Perpetual License Usage Hide "New" button on the Ticket Editor	Hide "Create a Ticket" in Toolbox menu			
Hide "New" button on the licket batton Hide "other" filesystem type				
	kad			
	St	ive		

3. Click [Save] to save the settings.

Manually Updating Varbind OIDs

By default, Message Collectors and Data Collectors are not populated with information about all varbind OIDs. The first time a Message Collector or Data Collector attempts to translate a specific varbind OID, that varbind OID will not be translated, but information about that varbind OID will be added to the Message Collector or Data Collector. All instances of a varbind OID after the first will then be translated correctly.

To make SL1 translate the first occurrence of a varbind OID correctly, you can manually run a process that prepopulates Message Collectors and Data Collectors with information about all varbind OIDs. You should run this process after adding new MIBs to SL1.

To manually populates Message Collectors and Data Collectors with information about all varbind OIDs, perform the following steps:

- 1. Go to the **OID Browser** page (System > Tools > OID Browser).
- 2. Select the [Update] button.

Configuring SNMPv3 Traps

To configure a Message Collector or Data Collector to accept an SNMPv3 trap or inform, SL1 automatically configures the trap configuration file on the Message Collector or Data Collector. SL1 automatically populates the SNMPv3 trap and inform credentials including the engine ID of the recipient, the Message Collector or Data Collector.

To configure an SNMPv3 Trap:

- 1. Go to the Credentials page (Manage > Credentials.
- 2. Click the SNMPv3 Trap Configuration Reset icon (C).
- 3. SL1 automatically configures the etc/snmptrapd.con file to receive SNMPv3 traps from all monitored devices.

Configuring SNMPv3 Traps in the Classic User Interface

To configure an SNMPv3 Trap in the classic SL1 user interface:

- 1. Go to the Credential Management page (System > Manage > Credentials).
- 2. Click the Actions button and then select Push SNMPv3 Trap Configuration.
- 3. A warning message appears: "Warning: This will push the SNMP V3 trap configuration to all collectors and message collectors and restart the snmptrapd service on the appliance. Are you sure you want to submit this?"

		1	0.64.1	71.17	70 says								Logged in as em7ad	Imin
JIC													Finder	
Views Events Tickets	s Reports Registr					MP V3 trap configuration to								
dential Management Credentials Foun	d [127]					ay restart the snmptrapd sen ant to submit this?	rice on the						Actions Reset	Gui
			-pilott		. ,								Create SNMP Credential	
													Create Database Credentia	
Profile Name *	Organization					ок	Cancel .	Host	Port	Timeout (m	s) ID	Last Edited	Create SOAP/XML Host Cr	
)(Create LDAP/AD Credentia	
AppDynamics Example	(all orga)		-		Soon mile hour	COLUMNE.	when proceeding		80	2000	91			
AppDynamics Example - Proxy	(all orgs]		-		SOAP/XML Host SNMP	<username></username>	example.com		80	2000	92		Create Basic/Snippet Crede	
Automation_Cisco_Wireless_SNMP	🚯 [all orgs]		-			-			161	1500	99	2020-10-15 11:58:23		
Auto_APCON	🙀 [all orgs]	1			SNMP	-				5 1500	107		Create PowerShell Credent	
Auto_Cisco_Base_Pack_Credential	🙀 (all orgs)	2			SNMP	-		-	161	6500			Test Credential [BETA]	
Auto_F5BigIP_SNMP	🙀 (all orgs)	65		191	SNMP				3001		101			
Auto_MerakiAPI	(all orgs)		-	30	Basic/Snippet SNMP	X-Cisco-Meraki-API-Key olk/VERva	https://api.meraki		443	60000 3000	97	2020-10-15 11:28:00	Push SNMPv3 Trap Config	
Auto_MerakiAPI_SNMPV3	🙀 (all orgs)										98	2020-10-15 11:28:00	CHILI CONTRACT	
AV/S Credential	🙀 (all orgs)	-				[AWS Account Access Key]	example.com		80	2000	29	2020-10-15 04:30:40	em7admin	
AV/S Credential - Proxy	🙀 [all orgs]					[AWS Account Access Key]	example.com		80	2000	30	2020-10-15 04:30:40	em7admin	
AWS Credential - Specific Region	🙀 [all orgs]					[AWS Account Access Key]	example.com		80	2000	31	2020-10-15 04:30:40	em7admin	
Azure Classic Credential SOAP	(all orgs)				SOAP/XML Host	<ad_user></ad_user>	login.windows.net		443	60000	26	2020-10-15 04:30:31	em7admin	
Azure Credential - China	🙀 [all orgs]						login.chinaclouda		443	120000	57	2020-10-15 04:31:24	em7admin	
Azure Credential - Germany	👔 [all orgs]			-	SOAP/XML Host		login.microsoftonl		443	120000	56	2020-10-15 04:31:24	em7admin	
Azure Credential - Government	🙀 [all orgs]				SOAP/XML Host		login.microsoftonl		443	120000	55	2020-10-15 04:31:24	em7admin	
Azure Credential - Proxy	🙀 [all orgs]		-		SOAP/XML Host		login.microsofton	ine.com	443	120000	54	2020-10-15 04:31:24	em7admin	
Azure Credential - SOAP/XML	🚯 [all orgs]		-	-	SOAP/XML Host		login.microsoftonl	ine.com	443	120000	53	2020-10-15 04:31:24	em7admin	
Cisco CE Series Configuration	🙀 (all orgs)				SOAP/XML Host		%D		80	15000	70	2020-10-15 04:31:32	em7admin	
Cisco CE Series History	🙀 (all orgs)			-	SOAP/XML Host		%D		80	15000	71	2020-10-15 04:31:32	em7admin	
P Cisco CE Series Status	🙀 (all orgs)				SOAP/XML Host		%D		80	15000	69	2020-10-15 04:31:32	em7admin	
A Cisco CUCM Example	🙀 (all orgs)			-	Basic/Snippet	aduser	%D		8443	30000	25	2020-10-15 04:30:30	em7admin	
Cisco Meeting Server Example	🚯 (all orgs)		-	-	Basic/Snippet	username	%D		22	15000	37	2020-10-15 04:30:50	em7admin	
P Cisco SNMPv2 - Example	🙀 (all orgs)	1			SNMP	-		-	161	1500	51	2020-10-15 04:31:18	em7admin	
Cisco SNMPv3 - Example	🙀 (all orgs)			1	SNMP	[USER_GOES_HERE]		-	161	1500	50	2020-10-15 04:31:18	em7admin	
A Cisco VOS CUC Cluster Status	🙀 (all orgs)				Basic/Snippet	<user_name></user_name>	%D		443	10000	15	2020-10-15 04:30:12	em7admin	
A Cisco VOS IM&P Cluster Status	🙀 (all orgs)				Basic/Snippet	<user_name></user_name>	%D		443	10000	17	2020-10-15 04:30:12	em7admin	
A Cisco VOS SOAP - Example	🙀 [all orgs]				SOAP/XML Host	<soap_user></soap_user>	%D		443	5000	16	2020-10-15 04:30:12	em7admin	
A Cisco: ACI Sample Credential	👔 [all orgs]				Basic/Snippet	admin	%D		443	30000	33	2020-10-15 04:30:46	em7admin	
A Cisco: Conductor Example (Discov	🙀 [all orgs]				SOAP/XML Host		%D		443	5000	87	2020-10-15 04:31:52	em7admin	
A Cisco: Conductor Example (Virtua	🚯 [all orgs]				SOAP/XML Host	admin	INSERT-IP-ADDF	ESS-OF-MASTER-NODE-HERE	443	5000	86	2020-10-15 04:31:52	em7admin	
P Cisco: CSP 2100 CLI Example	(all orgs]				SSH/Key	em7admin	%D		22	10000	13	2020-10-15 04:30:08	em7admin	
A Cisco: CSP Example	🙀 [all orgs]		-		Basic/Snippet	admin	http://%D		80	30000	10	2020-10-15 04:30:08	em7admin	
P Cisco: CSP SNMP Port 161 Example	🙀 [all orgs]		-		SNMP				161	1500	11	2020-10-15 04:30:08	em7admin	
P Cisco: CSP SNMP Port 1610 Exampl	(all orgs]				SNMP	-		-	1610	1500	12	2020-10-15 04:30:08	em7admin	
P Cisco: Dial Peer - Example	(all orgs]				SSH/Key	<user_name></user_name>	%D		22	10000	72	2020-10-15 04:31:35	em7admin	
Cisco: Meraki - API	(all orgs)				Basic/Snippet	X-Cisco-Meraki-API-Key	https://api.meraki	com	443	5000	94	2020-10-15 11:27:43	em7admin	
Gisco: Meraki - API (Selective)	(all orgs)				SOAP/XML Host	X-Cisco-Meraki-API-Key	api.meraki.com		443	5000	96	2020-10-15 11:27:43	em7admin	
P Cisco: Meraki - API - Proxy	(all orgs)		-		SOAP/XML Host	X-Cisco-Meraki-API-Key	api.meraki.com		80	5000	95	2020-10-15 11:27:43	em7admin	
@ Citrix XenServer Guardians	(all orgs)				Basic/Snippet	QA\xen_ro	10.0.10.61		443	5000	73	2020-10-15 04:31:37	em7admin	
P Couchbase Sample Credential	(all orgs)				SOAP/XML Host	user	%D		8091	20000	43	2020-10-15 04:31:05	em7admin	
A Dell EMC XtremIO Example	(all orgs)				SOAP/XML Host	XTREMIO Management Server (u: %D		443	2000	45	2020-10-15 04:31:06	em7admin	
P Dell EMC: Isilon SNMPv2 Example	al [all orgs]				SNMP				161	1500	41	2020-10-15 04:30:57	em7admin	

4. Click **OK**. SL1 automatically configures the etc/snmptrapd.con file to receive SNMPv3 traps from all monitored devices.

Manually Configuring SNMPv3 Traps

NOTE: These steps are no longer required in SL1 systems later than 8.14.9 or 10.1.4

To configure a Message Collector or Data Collector to accept an SNMPv3 trap or inform, you must edit the trap configuration file on the Message Collector or Data Collector. In the trap configuration file, enter the credentials that allow SL1 to communicate with the device that sends traps to SL1. Enter credentials for each device that sends traps to SL1. This information is configured in a configuration file at the operating-system level.

For SNMPv3 traps, the credential entry must include the engine ID of the device sending the trap. Therefore, there will be an entry in the trap configuration for each device that will send SNMPv3 traps. For SNMPv3 informs, the entry does not need to specify the engine ID. The engine ID of the recipient, the Message Collectoror Data Collector, is used for SNMPv3 informs. Therefore, if all the managed devices use the same credentials to send SNMPv3 informs, you need to add only one entry to the trap configuration file.

NOTE: Existing trap event policies will be triggered by SNMPv3 traps and SNMPv3 informs with no additional configuration.

To add a credential entry to the trap configuration file:

- 1. Either go to the console of the the Message Collector or Data Collector or use SSH to access the server.
- 2. Log in as user **em7admin** with the appropriate password.
- 3. Open the /etc/snmp/snmptrapd.conf file in a text editor.
- 4. At the end of the file, add a new "createUser" line. See the section below for the appropriate syntax.
- 5. Save the file.
- 6. Restart the trap engine by executing the following command:

sudo service snmptrapd restart

The syntax of createUser is different for each security level and whether you are configuring traps or informs:

• Informs, no authentication, no encryption (noAuthNoPriv):

createUser <security name>

For example:

createUser em7defaultv3

• Informs, authentication, no encryption (authNoPriv):

createUser <security name> <auth protocol> <security passphrase>

For example:

createUser em7defaultv3 SHA em7authpass

NOTE: For FIPS-compliant systems, authentication with MD5 will fail.

• Informs, authentication and encryption (authPriv):

createUser <security name> <auth protocol> <security passphrase> <privacy
protocol> <privacy pass phrase>

For example:

createUser em7defaultv3 SHA em7authpass DES em7privpass

• Traps, no authentication, no encryption (noAuthNoPriv):

createUser -e <engine ID> <security name>

For example:

createUser -e 0x0102030405 em7defaultv3

• Traps, authentication, no encryption (authNoPriv):

createUser -e <engine ID> <security name> <auth protocol> <security
passphrase>

For example:

createUser -e 0x0102030405 em7defaultv3 SHA em7authpass

• Traps, authentication and encryption (authPriv):

createUser -e <engine ID> <security name> <auth protocol> <security
passphrase> <privacy protocol> <privacy pass phrase>

For example:

createUser -e 0x0102030405 em7defaultv3 SHA em7authpass DES em7privpass

Here are some example commands for how to send a test coldStart trap from a SL1 appliance using authPriv and the credential information from the examples above:

snmptrap -e 0x0102030405 -v3 -u em7defaultv3 -a SHA -A em7authpass -x DES -X
em7privpass <message collector ip> 0 .1.3.6.1.6.3.1.1.5.1
snmpinform -v3 -u em7defaultv3 -a SHA -A em7authpass -x DES -X em7privpass <message
collector ip> 0 .1.3.6.1.6.3.1.1.5.1

Chapter



Syslog Messages

Overview

When an Appliance that performs Message Collection receives a Syslog message, it performs the following:

- 1. Matches the IP address of the sender to an IP address of a device monitored by a collector group that includes the Appliance.
 - If the IP address of the sender does not match an IP address of a device monitored by a collector group that includes the Appliance, the message is discarded and an event is generated. See Syslogs From Unknown Devices.
- 2. Compares the syslog to the defined syslog event policies:
 - If the syslog does not match an event policy, the syslog is logged in the Device Logs for the device that sent the syslog. See Syslogs That Do Not Match Event Policies.
 - If the syslog matches an event policy, the event is generated. The generated event is aligned with the device the syslog was matched with in step 1.

For more information on syslog events, see the *Events* manual.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon (\equiv) .
- To view a page containing all the menu options, click the Advanced menu icon (…).

This chapter includes the following topics:

Syslogs That Do Not Match Event Policies	 17
Syslogs From Unknown Devices	 17

Syslogs That Do Not Match Event Policies

If an Appliance that performs Message Collection receives a syslog that:

- Is from a device that is monitored by a collection group that includes the Appliance.
- Does not generate an event.

SL1 will log the receipt of the syslog in the device logs for the device. The message field for the Device Log will be the same as the syslog message field.

NOTE: Device Logs that are not associated with an Event are retrieved from Collection Units at five-minute intervals. It may take up to five minutes for syslogs that do not match event policies to appear in the Device Logs.

Syslogs From Unknown Devices

If an Appliance the performs Message Collection receives a syslog from an unknown device, a "From unknown device: <*ip-address-of-unknown-device*>, received the following syslog message:" event will be generated. An unknown device is defined as either:

- A device monitored by the SL1 system, but by a collector group that does not include the Appliance.
- A device not monitored by the SL1 system.

The "From unknown device: <*ip-address-of-unknown-device*>, received the following syslog message:" event will appear in the **Event Console** page associated with the System organization.

For the first syslog received from an unknown device, the message will have a Severity value of "Notice". If multiple syslogs are received from different unknown devices, additional events will be generated at the following thresholds:

- 10, 25 Syslogs Received. Severity value of "Minor".
- 100 Syslogs Received, and every 100 syslogs up to and including 900 Syslogs Received. Severity value of "Minor".
- 1,000 Syslogs Received, and every 1,000 syslogs up to and including 9,000 Syslogs Received. Severity value of "Minor".
- 10,000 Syslogs Received, and every 10,000 syslogs received thereafter. Severity value of "Major".

NOTE: Multiple messages received from the same unknown device will not increase the event count of syslog messages received or the event severity.

NOTE: The counters for the number of syslogs received from unknown devices will be reset to zero if the Event Engine on an Appliance that performs Message Collection is restarted, or the Appliance is restarted.

NOTE: The default threshold for incoming syslogs is set to 25 messages per second to prevent degraded performance.

Chapter

4

IP Address Conflicts

Overview

This chapter describes how SL1 handles IP address conflicts.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon (三).
- To view a page containing all the menu options, click the Advanced menu icon (…).

This chapter includes the following topics:

IP Addresses Associated with Devices	20
IP Conflict Events	20
Resolving IP Conflicts	21

IP Addresses Associated with Devices

There are three types of IP addresses that can be associated with a device:

- Admin Primary. This is the IP address that SL1 used to discover a device, and is used by Data Collectors to communicate with a device. This IP address is always the Admin Primary address and cannot be demoted to a secondary address.
- Primary. One or more IP addresses that SL1 uses to match incoming syslog an trap messages with a device.
- **Secondary**. SL1 gathers information about this IP address, but does not use this IP address to communicate with the device or match incoming syslog or trap messages with a device.

SL1 will allow devices with the same admin primary IP address to be monitored; however, devices with the same admin primary IP address must be in separate collector groups. The admin primary IP address is the IP address SL1 uses to monitor a device, and is listed in the "IP Address" column in the **Device Manager** page (Registry > Devices > Device Manager).

A Message Collector can be aligned with multiple collector groups. Because Message Collectors can be included in multiple collection groups, it is possible for the IP address associated with a syslog or trap to match multiple devices.

This chapter describes how a Message Collector reports IP conflicts in this situation.

NOTE: The information in this chapter does not apply to Data Collectors and All-In-One Appliances because Data Collectors and All-In-One Appliances can be in only one Collector Group.

IP Conflict Events

For each Message Collector, daily maintenance compares the IP addresses for all devices monitored by the collector groups that include the Message Collector. If the daily maintenance task finds duplicate admin primary IP addresses, SL1 generates the following event, with a default severity of major:

```
Primary IP address overlap on devices managed by Message Collector: <appliance-id-
of-message-collection-unit> | Collector Groups: <id-of-collector-groups> | IP
Address: <duplicate-ip-address> | Device IDs: <device-ids-using-ip-address>
```

If the daily maintenance task finds duplicate secondary IP addresses, SL1 generates the following event, with a default severity of minor:

```
Secondary IP address overlap on devices managed by Message Collector: <appliance-id-
of-message-collection-unit> | Collector Groups: <id-of-collector-groups> | IP
Address: <duplicate-ip-address> | Device IDs: <device-ids-using-ip-address>
```

When a Message Collector is:

- Aligned with multiple collector groups
- Receives a syslog or trap from a primary IP address associated with multiple devices
- The IP address is associated with multiple devices, all of which are are monitored by the same collector group that contains the the Message Collector

SL1 generates the following event, with a default severity of minor:

```
Could not match asynchronous message to a device due to a primary IP address ambiguity address: <duplicate-ip-address>
```

If a received syslog or trap triggers the address ambiguity event, and the Message Collector is discovered on the system, any events or logs generated by the syslog or trap are aligned with the Message Collector. If a received syslog or trap causes the address ambiguity event to be generated, and the Message Collector is not on the system, any events or logs generated by the syslog or trap are aligned with the System organization.

Resolving IP Conflicts

To prevent syslog and trap messages from aligning with the Message Collector or System organization because of an IP conflict, every device monitored by the same Message Collector must use a unique IP address to send syslog and trap messages. Even if these devices that share an IP address are in different collector groups, if the devices share one or more Message Collectors, the devices should use unique IP addresses to send syslog and trap messages.

By default, SL1 uses only the admin primary IP address to align syslog and trap messages to devices. If the admin primary IP address for a device is not unique, you can configure a secondary IP address for use as a primary IP address for message collection.

NOTE: Configuring a secondary IP address as a primary IP address for message collection will not affect any data collection performed byData Collectors. Data Collectors will always use the admin primary IP address when polling devices.

To configure a secondary IP address for a device as a primary IP address for message collection:

- 1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
- 2. Select the wrench icon (*P*)for the device you want to configure. The **Device Properties** window will be displayed.

3. To check that SL1 has discovered the secondary IP address that you want to configure as the primary IP address for message collection, select the IP Address drop down list. If the secondary IP address is not displayed in the list of IP addresses, you can add it manually:

•	Select the plus icon to the right of the IP Address drop down list. The Add IP Address modal wind	low
	is displayed:	

Add an IP Address	Close / Esc
IP Address:	
Subnet Mask:	Ī
Add	

• Enter the secondary IP address in the IP Address field.

- Enter the subnet mask for the secondary IP address in the Subnet Mask field.
- Select the [Save] button. The Add IP Address modal window will close and the message "Unverified IP Added to Device" is displayed.
- 4. From the [Actions] menu, select Select Primary IP Addresses. The Select Primary IP Addresses modal window is displayed:

Select Primary IP Addresses	Close / Esc
IP Address	State 🗸
1. 192.168.10.204	🔳
2. 192.168.34.18	Admin Primary 🔽
Save	

5. Select the checkbox for the secondary IP address you want to configure as a primary IP address. Select the **[Save]** button. The State of the selected IP address is now "Primary":

Select Primary IP Addresses Close / Esc							
IP Address	State 🗹						
1. 192.168.10.204	Primary 🔽						
2. 192.168.34.18	Admin Primary 🔽						
Save							

NOTE: You cannot change the state of the admin primary address. If a listed IP address is already in use as an admin primary or primary IP address for another device in the same collector group, you cannot set it as a primary IP address and the checkbox will not be displayed. You can select multiple secondary IP addresses to set as primary addresses.

Chapter

5

Event Policies for Syslogs and Traps

Overview

This chapter describes how to set up Event Policies for events with a source of Syslog and Trap messages.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon (三).
- To view a page containing all the menu options, click the Advanced menu icon (…).

This chapter includes the following topics:

Creating a Trap Event Policy	25
Example Trap Event Policy	30
Creating a Syslog Event Policy	34
Example Syslog Event Policy	38

Creating a Trap Event Policy

SL1 includes pre-defined events for the most commonly encountered conditions on the most common platforms. However, if the pre-defined events do not meet the needs of your organization, you can define new events that better suit your needs.

From the **Event Policies** page (or the **Event Policy Manager** page in the classic SL1 user interface), you can define a new event. You can define custom events to meet your business requirements. You can also define events to be triggered by any custom Dynamic Application alerts you have created.

To create an event definition:

- 1. Go to Event Policy Manager page (Registry > Events > Event Manager).
- 2. In the Event Policy Manager page, click the [Create] button. The Event Policy Editor page appears:

Event Policy Editor Create New Event Policy		New Reset Guide
Policy Advanced Suppressions		
Event Source	Policy Name	
Syslog Operational State	Event Message	
[Enabled]	Lvein wessage	9
Event Severity		
[Major] Vse Modifier 😧	•	
	Policy Description	
B I U S A. TI		
Start typing		
	Save]

- 3. In the **Event Policy Editor** page and set of tabs, you can define a new event. The **Event Policy Editor** page contains three tabs:
 - **Policy**. Allows you to define basic parameters for the event. This tab is described in the following section.
 - Advanced. Allows you to define pattern-matching for the event and also define event roll-ups and suppressions.

- **Suppressions**. Allows you to suppress the event on selected devices. When you suppress an event, you are specifying that, in the future, if this event occurs again on a specific device, the event will not appear in the **Event Console** page or the **Viewing Events** page for the device.
- 4. Supply values in the following fields:
 - Event Source. Select Trap.
 - **Policy Name**. The name of the event. Can be any combination of alphanumeric characters, up to 48 characters in length.
 - **Operational State**. Specifies whether event is to be operational or not. Choices are Enabled or Disabled.
 - Event Message. The message that appears in the Event Console page or the Viewing Events page when this event occurs. Can be any combination of alphanumeric characters. Variables include the characters "%" (percent) and "|" (bar). You can also use regular expressions and variables that represent text from the original log message to create the Event Message:
 - To include regular expressions in the Event Message:

Surround the regular expression with %R and %/R. For example:

%RFilename: .*? %/R

Would search for the first instance of the string "Filename: " (Filename-colon-space) followed by any number of any characters up to the line break. The %R indicates the beginning of a regular expression. The %/R indicates the end of a regular expression.

SL1 will use the regular expression to search the log message and use the matching text in the event message.

For details on the regular expression syntax allowed by SL1, see http://www.python.org/doc/howto/.

- You can also use the following variables in this field:
 - %I ("eye"). This variable contains the value that matches the Identifier Pattern field in the [Advanced] tab.
 - %M. The full text of the log message that triggered the event will be displayed in *Event* Message field.
 - %V. Data Value from log file will be displayed in the *Event Message* field.
 - %T. Threshold value from the log file will be displayed in *Event Message* field.
- Event Severity. Defines the severity of the event. Choices are:
 - *Healthy*. Healthy Events indicate that a device or condition has returned to a healthy state. Frequently, a healthy event is generated after a problem has been fixed.

- Notice. Notice Events indicate a condition that does not affect service but about which users should be aware.
- *Minor*. Minor Events indicate a condition that does not currently impair service, but the condition needs to be corrected before it becomes more severe.
- *Major*. Major Events indicate a condition that is service impacting and requires immediate investigation.
- *Critical*. Critical Events indicate a condition that can seriously impair or curtail service and require immediate attention (i.e. service or system outages).
- Use Modifier. If selected, when the event is triggered, SL1 will check to see if the interface associated with this event has a custom severity modifier. If so, the event will appear in the **Event Console** with that custom severity modifier applied to the severity in the **Event Severity** field. For example, if an interface with an **Event Severity Adjust** setting of Sev -1 triggers an event with an **Event Severity** of *Major* and that event has the **Use Modifier** checkbox selected, the event will appear in the **Event Console** with a severity of *Minor*.
- Policy Description. Text that explains what the event means and what possible causes are.

Defining Pattern Matching and Advanced Behavior

The **[Advanced]** tab in the **Event Policy Editor** page allows you to define or edit pattern-matching for the trap event and also define event roll-ups and suppressions. In the **[Advanced]** tab, you can define or edit the following fields that pertain to traps:

Event Policy Editor Create New Event Policy		New Reset Guide
Policy Advanced Suppressions		
Occurrence Count	First Match String	
[Disabled]		0
Occurrence Time	Second Match Strin	-
[Disabled]		
[Disabled]	Identifier Pattern	Override Ytype
Detection Weight	Identifier Format	😧 [None]
[0 - First]		9
Syslog Facility		
[Match Any]	Auto-Clear	Topology Suppression
Syslog Severity	[None Selected] Healthy: ADIC Global Status OK [902]	A Providence of the second sec
Syslog Application Name	Healthy: AKCP: AC Voltage sensor now reporting Normal Status [1523] Healthy: AKCP: DC Voltage sensor returned to Normal Status [1530]	[None Selected]
	Healthy: AKCP: Dry contact sensor now Normal [1521] Healthy: AKCP: Smoke detector now Normal Status [1518]	
Syslog Process ID	Healthy: AKCP: Water sensor now Normal [1519]	
└──────────────────────	Healthy: Alteon: Primary Power Supply Healthy [1409] Healthy: Alteon: Redundant Power Supply Healthy [1410]	
Syslog Message ID	Healthy: APC: Batteries Do Not Need Replacement [946] Healthy: APC: Battery Charge Normal [945]	
Component Type	Healthy: APC: Battery Run Time Remaining No Longer Critical [942] Healthy: APC: Calibration Test Completed [954]	
N/A	Healthy: APC: Communication Status Okay [949] Healthy: APC: Diagnostic Test Passed [953]	
External Event Id	Healthy: APC: Diagnostics Schedule Set [955]	
	Healthy: APC: Percent Battery Remaining No Longer Critical [944] Healthy: APC: Temperature has returned to normal [961]	
External Category	Healthy: APC: UPS Not on Battery [950] Healthy: APC: UPS Not Running on Battery [947]	
	Healthy: APC: Zero Defective Battery Packs [943] Healthy: Blue Coat: attack status normal [1977]	
Match Logic	Healthy: Brocade Switch: Admin Status Online [1936]	
Text Search	Healthy: Brocade Switch: Operational Status Online [1937] Healthy: Brocade Switch: POST Returned Embed Port Okay [1938]	
Use Multi-match 😧	Healthy: Cisco (Tandberg C Series): Auto Answer Mode is now On [1418] Healthy: Cisco (Tandberg C Series): DVI Input is now connected [1428]	T
Use Message-match 😡		
	Save	

- Link-Trap. For events with a source of Trap, displays a list of trap OIDs that are included in the MIB files that have been compiled in SL1. You can either select one of the listed trap OIDs to associate with the event or manually enter a custom trap OID. You can use an asterisk (*) as a wildcard character at the end of the trap OID. If you add the wildcard character to the end of the trap OID, the event policy will match all trap OIDs that start with the specified OID string. This is useful for creating "catch all" event policies.
- **Source Host Varbind**. For events with a source of *Trap*, specifies an OID that is included in the trap. This OID will contain the IP address to align with the event.
 - If a value is specified in this field, SL1 examines the OID specified in this field. If the value stored in the OID matches the primary IP address of a device in SL1, the resulting event will be aligned with that device.
 - If a value is specified in this field, SL1 examines the OID specified in this field. If the value stored in the OID does not match a primary IP address of a device in SL1, the resulting event will be aligned with the device that sent the trap.

- If no value is specified in this field, but the trap includes the default snmpTrapAddress OID, SL1 will examine the value stored in the snmpTrapAddress OID. If the value stored in the OID matches the primary IP address of a device in SL1, the resulting event will be aligned with that device.
- If no value is specified in this field and the trap does not include the snmpTrapAddress OID, SL1 will align the resulting event with the device that sent the trap.
- *First Match String*. A string used to correlate the event with a log message. To match this event policy, the text of a log message or alert must match the value you enter in this field. Can be any combination of alphanumeric characters. SL1's expression matching is case sensitive. This field is required for events generated with a source of Syslog, Security, 3rd Party, and Email.
- Second Match String. A secondary string used to match against the originating log message. To match this event policy, the text of a log message or alert must match the value you enter in this field and the value you entered in the *First Match String* field. This field is optional.

NOTE: The **Match Logic** field specifies whether SL1 should process **First Match String** and **Second Match String** as simple text matches or as regular expressions.

- **NOTE**: You can define an event so that it is triggered only when it occurs on a specific interface. You can then include the interface name and SL1's unique interface ID for the interface in the event message. When defining an event, you can use the following three fields below to associate an event with an interface.
- Identifier Pattern. A regular expression used to extract the specific subentity (like the name of a network interface) within the log entry. SL1 will use this value as the yName of the interface. By identifying the subentity, SL1 can create a unique event for each subentity, instead of a single event for the entire device. For example, a log message indicating a link has gone down may include the network interface name. So this field could extract the network interface name from the log message. SL1's expression matching is case sensitive. For details on the regular expression syntax allowed by SL1, see http://www.python.org/doc/howto.
- Identifier Format. If the Identifier Pattern field returns multiple results, users can specify which results to use and in which order. Each result is represented by a variable. This field is optional.
 - %1. First match with identifier pattern. This is the default behavior if no value is supplied in the Identifier Format field.
 - %2. Second match with identifier pattern.
 - For example, users could specify "%2:%1" for "Interface %2: Peer %1".

Select the **[Save]** button to save your settings when you have finished editing the fields pertaining to your trap event policy.

For more information on the remaining fields, as well as the [Suppressions] tab, see the Events manual.

Example Trap Event Policy

Trap messages are sent from devices to SL1 in order to notify the platform of any issues or important events occurring on the device.

To create a Trap Event Policy:

- 1. Go to the **Event Policy Manager** page (Registry > Events > Event Manager).
- 2. Select the [Create] button, and the Event Policy Editor page will appear.
- 3. In the **Event Policy Editor** page, enter these values in the following fields:

Event Policy Editor Policy Successfully Saved	[2108] Editing Event Policy [2108] New Reset Guide
Policy Advanced Suppressions	
Event Source	Policy Name
[Trap]	Example Trap Policy
Operational State	Event Message
[Enabled]	9M 😧
Event Severity [Major] Use Modifier	ii.
	Policy Description
	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Device Battery Low.	
	Save Save As

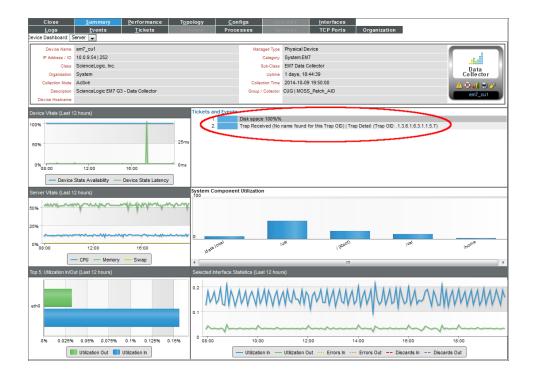
- Event Source. We selected Trap.
- Operational State. We selected Enabled.
- Event Severity. We selected Notice.
- Policy Name. We entered "Example Trap Policy".
- Event Message. We entered "%M".
- Policy Description. We entered "Device Battery Low."
- 4. Select the **[Save]** button.
- 5. After saving those settings, select the **[Advanced]** tab. We entered the following values in the following fields:

Event Policy Editor Policy Successfully Saved [21	08] Editing Event Policy [2108] Reset Gui	de
Policy Advanced Suppressions		
Occurrence Count	First Match String	
[Disabled]		0
Occurrence Time	Second Match String	
[Disabled]		
Expiry Delay	Identifier Pattern Override Ytype	
[Disabled]		- 0
Detection Weight	Identifier Format	
[0 - First]		
Link-Trap		
1.3.6.1.6.3.1.1.5.7		
·	[None Selected] [Disabled] [Disabled]	- 😧
1.0.8802.1.1.2.0.0	Healthy: AKCP: AC Voltage sensor now reporting Normal Status [1523]	
1.0.8802.1.1.2.0.0.	Healthy: AKCP: DC Voltage sensor returned to Normal Status [1530] [None Selected]	^ 😧
	Healthy: AKCP: Dry contact sensor now Normal [1521] Healthy: AKCP: Smoke detector now Normal Status [1518]	
dot11smt.dot11SMTnotification	Healthy: AKCP: Water sensor now Normal [1519] Healthy: Alteon: Primary Power Supply Healthy [1409]	
	Heatry: Aleon: Redundant Power Supply Heatry [1405]	
Source Host Varbind	Healthy: APC: Batteries Do Not Need Replacement [946] Healthy: APC: Battery Charge Normal [945]	
•	Healthy: APC: Battery Run Time Remaining No Longer Critical [942]	
Component Type	Healthy: APC: Calibration Test Completed [954] Healthy: APC: Communication Status Okay [949]	
	Healthy: APC: Diagnostic Test Passed [953]	
External Event Id	Healthy: APC: Diagnostics Schedule Set [955] Healthy: APC: Percent Battery Remaining No Longer Critical [944]	
	Healthy: APC: Temperature has returned to normal [961]	
External Category	Healthy: APC: UPS Not on Battery [950] Healthy: APC: UPS Not Running on Battery [947]	
•	Healthy: APC: Zero Defective Battery Packs [943]	
Match Logic	Healthy: Blue Coat: attack status normal [1977] Healthy: Brocade Switch: Admin Status Online [1936]	
[Text Search]	Healthy: Brocade Switch: Operational Status Online [1937]	
Use Multi-match 🚱	Healthy: Brocade Switch: POST Returned Embed Port Okay [1938] Healthy: Cisco (Tandberg C Series): Auto Answer Mode is now On [1418]	-
Use Message-match 🖓	Healthy: Cisco (Tandberg C Series): DVI Input is now connected [1428]	- 1
	Healthy: Cisco (Tandberg C Series): H.323 Gatekeeper is now enabled and registere Healthy: Cisco (Tandberg C Series): HDMI Input is now connected [1426]	
	Healthy: Cisco (Tandberg C Series): Interface Speed now OK [1423]	
	Hastibur Cissa (Tandham C Sarias): BrAudia Littar Has Batumad Ta Namal (1460)	
	Save Save As	

- Link-Trap. We entered the device's trap oid of "1.3.6.1.6.3.1.1.5.7".
- 6. We left the rest of the fields at their default settings, and then selected the **[Save]** button.
- 7. When the device's battery is low, it will send the trap message and trigger an event, which appears in the Event Console. Clicking on the graph icon (^{ddf}) will bring up the Device Summary page for the device for which the event occurred. Clicking on the life ring icon (^{Eg}) will create a ticket for the event.

Organization	· Nama ·	Tras	Event Message	Severity •	Ackzonledged	Ne	ata I	okat Aga / Elapa	d Last Detected •	E10	Source	Court	Netify	1
1. System	(men 7_cul	Device	Trap Repeived (No name found for this Trap OD) Trap Detail: (Trap OD: 1361631157)	- Annual	2			19 mins 6 sect		116391	ATrap	2		•
2 System	ant cut	Device	Disk space 100%%		2 -			3 hrs 41 mins	2014-10-09 15:46:29	116171	Syslog			6
System	10.20.0.123		System or agent has recently restarted		2			2 mons 1 wk	2014-10-09 19:25:10	4329	a) oysoy	20.451		ŏ i
System	10.20.0.176		CPU has exceeded threshold: (90%) currently (100%)		0 -			- 2 mons 1 wk	2014-10-09 19:25:25	4265	Dynamic		-	ŏ
System	10.20.0.176		Printer Bypass paper tray empty: Bypass		0 -			- 2 mons 1 wk	2014-10-09 19:00:55	4536	1)Dynamic			ŏ
System	10.20.0.190		CPU has exceeded threshold: (90%) currently (614200421%)		0			- 2 mons 1 wk	2014-10-09 19:25:16	4250	Dynamic		-	ŏ
System	10.20.0.191		Physical Memory has exceeded threshold: (80%) currently (100%)		0			2 mons 1 wk	2014-10-09 19:25:12	4281	Dynamic			ŏ.
System	10 20 0 191		Printer Tray 8 paper tray empty: Tray 8		2			2 mons 1 wk	2014-10-09 19:00:55	4541	Dynamic			õ.
System	10.20.0.8		Printer Toner Cartridge OKI DATA CORP toner low, current level: 1% full		2 -			2 mons 1 wk	2014-10-09 19:00:55	4530	ADviamic			
System	224371-58.bu01.hosting.c		Physical Memory has exceeded threshold: (80%) currently (95%)		0 -			- 2 mons 1 wk	2014-10-09 19:25:20	4266	Dynamic		-	ŏ
System	Aficio 1018D		Printer Bypass Tray paper tray empty: Bypass Tray		0 -			- 2 mons 1 wk	2014-10-09 19:00:54	4535	1)Dynamic			ŏ
System	dbbaudrt/1		CPU: 1 has exceeded threshold: (90%) currently (100%)		2 -			- 12 mins 11 sec		116398	Dynamic		-	ŏ
System	cat5500-2		CPU: 9 has exceeded threshold. (90%) currently (50000%)		0			2 mons 1 wk	2014-10-09 19:25:17	4257	Dynamic			ŏ
System	cv-8510-1 cisco.com		System or agent has recently restarted		2 -			2 mons 1 wk	2014-10-09 19:25:10	4311	Minternal	20,451		ŏ
System	DELL2A72DA		Physical Memory has exceeded threshold: (80%) currently (100%)		2 -			2 mons 1 wk	2014-10-09 19:25:12	4270	ADviamic			ŏ
System	den7pdufw		Physical Memory has exceeded threshold: (80%) currently (82%)		0 -			- 2 mons 1 wk	2014-10-09 19:25:18	4256	hDynamic		-	ŏ
System	den7 db	Device	App. 902. Snippet: 952 reported a collection problem (Explanation: Could not connect to databa		2 -			- 1 day 3 hrs	2014-10-09 19 27:04	114525	1)internal	1.629		ŏ
System	den7 mc		App. 902. Snippet 952 reported a collection problem (Explanation: Could not connect to databa		2 -		-	- 1 day 3 hra	2014-10-09 19 27:05	114500		1.646	-	ŏ
System	HQ-W2K3-JUMP01		Physical Memory has exceeded threshold: (80%) currently (100%)		2 -			2 mons 1 wk	2014-10-09 19:25:26	4280	Dynamic			ŏ
System	mon01-nid-gsa-01-fw-05		CPU has exceeded threshold: (90%) currently (2376%)		2 -			2 hrs 2 mins	2014-10-09 19:25:29	116272	Dynamic			ă.
System	mon@1-rid-gsa-@1-tw-05		CPU has exceeded threshold: (90%) currently (5175%)		2 -			2 days 13 hrs	2014-10-09 19:25:29	112247	hiDynamic			ŏ
System	men01-rid-gsa-01-fw-05		Physical Memory has exceeded threshold: (80%) currently (3415%)		0 -		-	- 1 day 16 hrs	2014-10-09 19:25:26	113635	Dynamic		-	ŏ
System	noc-b-bigip11.enet interop.		Physical Memory has exceeded threshold: (80%) currently (92%)		0 -			- 2 mons 1 wk	2014-10-09 19 25:24	3950	Dynamic		-	ŏ
System	noc-b-bigip12.enet.interop		Physical Memory has exceeded threshold: (80%) currently (91%)		2 -		-	- 2 mona 1 wk	2014-10-09 19 25 19	3951	Dynamic		-	ŏ
System	ROS-DEN-POP.resdtvisb.co				2 -	3		1 hr 2 mins	2014-10-09 19:25:16	116354	Dynamic			ŏ
														Ack.

8. Clicking on the graph icon (*iii*) will bring up the **Device Summary** page. You will see the event listed in the **Device Summary** page, and you can click on the event to view the **Event Summary** modal page.

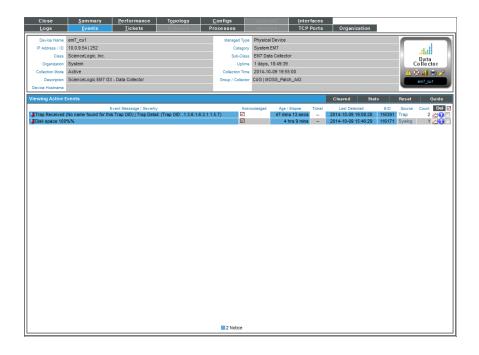


E	vent Summary [11	6391]			Close / Esc
	For Event [1163	21] A	ctions	Acknowledg	Clear
	Event Message	Trap Received (No name found for th .1.3.6.1.6.3.1.1.5.7)	is Trap (DID) Trap Detail: ('	Trap OID:
	Severity For Device	Notice em7_cu1			
		45 minutes 55 seconds @ 2014-10-09 19 45 minutes 54 seconds @ 2014-10-09 19 2			
	Acknowledged On Acknowledged By				
	Policy Name / ID Policy Type	Example Trap Policy [2556] Trap Event			
	Ticket Description	-			
	Probable Cause & Resolution	Device Battery Low.			
	Note	Save Note			

9. You can also select the **[Logs]** tab from the **Device Summary** page to view the **Device Logs & Messages** page. The trap message will appear in the device logs, and you can select the View Events icon (¹) which will take you to the **Viewing Active Events** page for that device.

Close Logs		nmary rents			rmance T <u>o</u> pology kets	<u>C</u> onfigs Processes	Journals <u>I</u> nterfa Services TCP Po			
Device Name	_	_		_			 Physical Device 			_
										:
IP Address / ID	10.0.9.5						y System.EM7		inter a state	
Class	Sciencel	Logic, In	IC.			Sub-Clas	s EM7 Data Collector			
Organization	System					Uptim	e 1 days, 18:44:39		Data Collec	tor
Collection Mode	Active					Collection Tim	e 2014-10-09 19:50:00		4. 20 at 1	1
Description	Sciencel	Logic EN	17 G3 - E	Data Co	llector	Group / Collecto	CUGIMOSS Patch AIO		em7_ou	
Device Hostname										,
	_	_	_	_						_
vice Logs & M	lessages	Mes	sages I	Found	[92]				Reset 0	Guide
	[Sear	ch All M	essages	1	where Message is like	-			S	Searc
	<u> </u>		_							(Inclusion)
Date Tir			Event ID						Messa	ige
1. 2014-10-09 1						d for this Trap OID) Trap Det	tail: (Trap OID: .1.3.6.1.6.3.1.1.5	.7) (message repeats 1 tim	es)	
2. 2014-10-09 1			116171		Disk space 100%%					
3. 2014-10-09 0 4 2014-10-09 0					Completed device properties of Added dynamic application for					
 2014-10-09 0 2014-10-09 0 			115191		Completed application discove		Dynamic Application			
5. 2014-10-09 C 6. 2014-10-09 C					Completed application discove Completed TCP/IP port scan	ry on device				
 2014-10-09 0 2014-10-09 0 					Completed TCP/IP port scan Completed scan for SSL certi	f				
7. 2014-10-09 0 8. 2014-10-09 0					Completed scan for SSL certi Completed IP address classifi					
9. 2014-10-09 0			-		Completed is address classifi Completed scheduled redisco					
9. 2014-10-09 C					System or agent has recently					
1. 2014-10-08 0				-			at Number and Inc. 19	501h- 202	BX Desktop Reference Platform Ro	
2014-10-08 0									e Row ID: .0 element: Baseboard Se	
3. 2014-10-08 0			-	-					D: .0 element: Baseboard Version, p	
4. 2014-10-08 C									w ID: .0 element: BIOS Release Date	
 2014-10-08 0 2014-10-08 0 			-						nix Technologies LTD Row ID: .0 eler	
5. 2014-10-08 C									nox rechnologies LTD Row ID: .0 elei 17 AOpen Inc. new value: 6.00 Row	
7 2014-10-08 0									ow ID: .0 element: Chassis Manufac	
 2014-10-08 0 2014-10-08 0) element: Chassis Version, previou	
9. 2014-10-08 0									element: CPU Cache Size, previous	
0 2014-10-08 0									ent: CPU Mhz., previous value: 1600	
. 2014-10-08 0									ment: CPU Model, previous value: Ce	
2. 2014-10-08 0									D: .0 element: Swap Memory Total.	
3. 2014-10-08 0									lement: Memory Total, previous valu	
4. 2014-10-08 0									Row ID: .0 element: Appliance Man	
5. 2014-10-08 C									VMware Virtual Platform Row ID: .0	
 2014-10-08 0 2014-10-08 0 									4d cd f5 39 bc f2 1d-4f 31 0c 75 fc	
				-					None Row ID: .0 element: Appliance	
7 2014-10-08 0							active received, provider and	and the second of the second s	Applanet Applanet	mun
7. 2014-10-08 0 8. 2014-10-08 0	1110111	Internal	113542	-	System or agent has recently	restarted				
			113542		System or agent has recently Configuration change: Row ID		uct Number, previous value: 44	0BX Desktop Reference Pla	atform new value: i945GMx-BCD Ro	w P

 From the Viewing Active Events page, you can select the information icon (¹) to view the Event Information modal page, filter the device's events based on event type, or view graphical reports about that device's events based on type.



Creating a Syslog Event Policy

SL1 includes pre-defined events for the most commonly encountered conditions on the most common platforms. However, if the pre-defined events do not meet the needs of your organization, you can define new events that better suit your needs.

From the **Event Policies** page (or the **Event Policy Manager** page in the classic SL1 user interface), you can define a new event. You can define custom events to meet your business requirements. You can also define events to be triggered by any custom Dynamic Application alerts you have created.

To create an event definition:

- 1. Go to Event Policy Manager page (Registry > Events > Event Manager).
- 2. In the Event Policy Manager page, click the [Create] button. The Event Policy Editor page appears:

Event Policy Editor Create New Event Policy	New	Reset	Guide
Policy Advanced Suppressions			
Event Source Policy Name			
Syslog Cperational State Event Message			
[Enabled] V C			3
Event Severity			
[[Major] Use Modifier @			10
Policy Description			
B I U S A. Th. 0. ¶. 𝔅. Ξ. Ξ Ξ Ξ Ξ Ξ Ξ Φ. Δ Δ	/ >		
Start typing			
Save			

- 3. In the **Event Policy Editor** page and set of tabs, you can define a new event. The **Event Policy Editor** page contains three tabs:
 - Policy. Allows you to define basic parameters for the event. This tab is described in the following section.
 - Advanced. Allows you to define pattern-matching for the event and also define event roll-ups and suppressions.

- **Suppressions**. Allows you to suppress the event on selected devices. When you suppress an event, you are specifying that, in the future, if this event occurs again on a specific device, the event will not appear in the **Event Console** page or the **Viewing Events** page for the device.
- 4. Supply values in the following fields:
 - Event Source. Select Syslog.
 - **Policy Name**. The name of the event. Can be any combination of alphanumeric characters, up to 48 characters in length.
 - **Operational State**. Specifies whether event is to be operational or not. Choices are Enabled or Disabled.
 - Event Message. The message that appears in the Event Console page or the Viewing Events page when this event occurs. Can be any combination of alphanumeric characters. Variables include the characters "%" (percent) and "|" (bar). You can also use regular expressions and variables that represent text from the original log message to create the Event Message:
 - To include regular expressions in the Event Message:

Surround the regular expression with %R and %/R. For example:

%RFilename: .*? %/R

Would search for the first instance of the string "Filename: " (Filename-colon-space) followed by any number of any characters up to the line break. The %R indicates the beginning of a regular expression. The %/R indicates the end of a regular expression.

SL1 will use the regular expression to search the log message and use the matching text in the event message.

For details on the regular expression syntax allowed by SL1, see http://www.python.org/doc/howto/.

- You can also use the following variables in this field:
 - %I ("eye"). This variable contains the value that matches the Identifier Pattern field in the [Advanced] tab.
 - %M. The full text of the log message that triggered the event will be displayed in *Event* Message field.
 - %V. Data Value from log file will be displayed in the *Event Message* field.
 - %T. Threshold value from the log file will be displayed in *Event Message* field.
- Event Severity. Defines the severity of the event. Choices are:
 - *Healthy*. Healthy Events indicate that a device or condition has returned to a healthy state. Frequently, a healthy event is generated after a problem has been fixed.

- Notice. Notice Events indicate a condition that does not affect service but about which users should be aware.
- *Minor*. Minor Events indicate a condition that does not currently impair service, but the condition needs to be corrected before it becomes more severe.
- *Major*. Major Events indicate a condition that is service impacting and requires immediate investigation.
- *Critical.* Critical Events indicate a condition that can seriously impair or curtail service and require immediate attention (i.e. service or system outages).
- Use Modifier. If selected, when the event is triggered, SL1 will check to see if the interface associated with this event has a custom severity modifier. If so, the event will appear in the **Event Console** with that custom severity modifier applied to the severity in the **Event Severity** field. For example, if an interface with an **Event Severity Adjust** setting of Sev -1 triggers an event with an **Event Severity** of Major and that event has the **Use Modifier** checkbox selected, the event will appear in the **Event Console** with a severity of Minor.
- Policy Description. Text that explains what the event means and what possible causes are.

Defining Pattern Matching and Advanced Behavior

The **[Advanced]** tab in the **Event Policy Editor** page allows you to define or edit pattern-matching for the syslog event and also define event roll-ups and suppressions. In the **[Advanced]** tab, you can define or edit the following fields that pertain to syslogs:

Event Policy Editor Create New Event Policy		ľ	lew Reset	Guide
Policy Advanced Suppressions				
Occurrence Count	First Match String			
[Disabled]				•
Occurrence Time	Second Match Strin	Ig		
[Disabled]				•
[Disabled]	Identifier Pattern		Override Ytype	
Detection Weight		😮 [Nor	ie j	- 3
[0 - First]	Identifier Format			•
Syslog Facility				
[Match Any]	Auto-Clear		Topology Suppress	ion
Syslog Severity	[None Selected] Healthy: ADIC Global Status OK [902]	🔺 🕜 🛛 Disa	abled]	- 2
[Notice]	Healthy: AKCP: AC Voltage sensor now reporting Normal Status [1523]		Category e Selected 1	
Syslog Application Name	Healthy: AKCP: DC Voltage sensor returned to Normal Status [1530] Healthy: AKCP: Dry contact sensor now Normal [1521]		e Selected J	- ^ 😧
Syslog Process ID	Healthy: AKCP: Smoke detector now Normal Status [1518] Healthy: AKCP: Water sensor now Normal [1519]			
•	Healthy: Alteon: Primary Power Supply Healthy [1409] Healthy: Alteon: Redundant Power Supply Healthy [1410]			
Syslog Message ID	Healthy: APC: Batteries Do Not Need Replacement [946]			
	Healthy: APC: Battery Charge Normal [945] Healthy: APC: Battery Run Time Remaining No Longer Critical [942]			
Component Type	Healthy: APC: Calibration Test Completed [954] Healthy: APC: Communication Status Okay [949]			
	Healthy: APC: Diagnostic Test Passed [953]			
External Event Id	Healthy: APC: Diagnostics Schedule Set [955] Healthy: APC: Percent Battery Remaining No Longer Critical [944]			
External Category	Healthy: APC: Temperature has returned to normal [961] Healthy: APC: UPS Not on Battery [950]			
	Healthy: APC: UPS Not Running on Battery [947] Healthy: APC: Zero Defective Battery Packs [943]			
	Healthy: Blue Coat: attack status normal [1977]			
Match Logic	Healthy: Brocade Switch: Admin Status Online [1936] Healthy: Brocade Switch: Operational Status Online [1937]			
Use Multi-match 🕢	Healthy: Brocade Switch: POST Returned Embed Port Okay [1938] Healthy: Cisco (Tandberg C Series): Auto Answer Mode is now On [1418]			-
Use Message-match 🕢	Healthy: Cisco (Tandberg C Series): DVI Input is now connected [1428]	-		
	Save			

- Syslog Facility. Facility information used by syslog to match an event message.
- Syslog Severity. Severity information used by syslog to match an event message.
- Syslog Application Name. Application Name used by syslog to match an event message.
- Syslog Process ID. Process ID used by syslog to match an event message.
- Syslog Message ID. Message ID used by syslog to match an event message.

NOTE: For more information on the syslog fields for events, see <u>http://www.rfc-archive.org/getrfc.php?rfc=5424</u>.

- *First Match String*. A string used to correlate the event with a log message. To match this event policy, the text of a log message or alert must match the value you enter in this field. Can be any combination of alphanumeric characters. SL1's expression matching is case sensitive. This field is required for events generated with a source of Syslog, Security, 3rd Party, and Email.
- Second Match String. A secondary string used to match against the originating log message. To match this event policy, the text of a log message or alert must match the value you enter in this field and the value you entered in the *First Match String* field. This field is optional.

NOTE: The Match Logic field specifies whether SL1 should process First Match String and Second Match String as simple text matches or as regular expressions.

NOTE: You can define an event so that it is triggered only when it occurs on a specific interface. You can then include the interface name and SL1's unique interface ID for the interface in the event message. When defining an event, you can use the following three fields below to associate an event with an interface.

- Identifier Pattern. A regular expression used to extract the specific subentity (like the name of a network interface) within the log entry. SL1 will use this value as the yName of the interface. By identifying the subentity, SL1 can create a unique event for each subentity, instead of a single event for the entire device. For example, a log message indicating a link has gone down may include the network interface name. So this field could extract the network interface name from the log message. SL1's expression matching is case sensitive. For details on the regular expression syntax allowed by SL1, see http://www.python.org/doc/howto.
- Identifier Format. If the Identifier Pattern field returns multiple results, users can specify which results to use and in which order. Each result is represented by a variable. This field is optional.
 - %1. First match with identifier pattern. This is the default behavior if no value is supplied in the Identifier Format field.
 - %2. Second match with identifier pattern.
 - For example, users could specify "%2:%1" for "Interface %2: Peer %1".

Select the **[Save]** button to save your settings when you have finished editing the fields pertaining to your syslog event policy.

For more information on the remaining fields, as well as the [Suppressions] tab, see the Events manual.

Example Syslog Event Policy

This section will walk through the steps of creating an event policy for syslogs. We will be creating a policy that will send a syslog message when the device's disk space has reached 100% capacity.

To create a Syslog Event Policy:

- 1. Go to the **Event Policy Manager** page (Registry > Events > Event Manager).
- 2. Select the [Create] button, and the Event Policy Editor page will appear.
- 3. In the **Event Policy Editor** page, enter these values in the following fields:

Event Policy Editor Policy Successfully Saved	[2107] Editing Event Policy [2107] Ne	w Reset G	Guide
Policy Advanced Suppressions			
Event Source	Policy Name		
[Syslog]	·		•
Operational State	Event Message		
[Enabled] Event Severity	10		•
[Major] Use Modifier			:
	Policy Description		
🗐 👌 🔛 🗵 Source 🖺 🐰	9 🖲 📾 🗇 🗒 🖉 🐁 🚳 🗖 🗄 🥹 🖽 🖽 🗉		
	Format + Font + Size + Tar Ar		
Definition: Disk space has reached 100%.			
Deminion. Disk space has reached 100 %.			
<u> </u>	Save Save As		

- Event Source. We selected Syslog.
- Operational State. We selected Enabled.
- Event Severity. We selected Notice.
- Policy Name. We entered "Example Syslog Policy".
- Event Message. We entered "%M".
- Policy Description. We entered "Definition: Disk space has reached 100%."
- 4. Select the **[Save]** button.

5. After saving those settings, select the **[Advanced]** tab. We entered the following values in the following fields:

Policy Advanced Suppre	ssions					
Occurrence Count		First Match String				
Disabled]	- 🕞	Disk space 100%%				
Occurrence Time		Second Match Stri	ng			
Disabled]	- 😯					
Expiry Delay		Identifier Pattern		Oven	ide Ytype	
Disabled]	- 😯		•	[None]	as rijps	
Detection Weight		Identifier Format				
0 - First]	- 6					
Syslog Facility						
Match Any]	- 3	Auto-Clear		Topology	Suppression	
Syslog Severity		None	^	[Disabled]		
Match Any]	- 😯	Healthy: ADIC Global Status OK [902] Healthy: AKCP: AC Voltage sensor now reporting Normal Status [1523]		Ca	tegory	
Syslog Application Name		Healthy: AKCP: DC Voltage sensor returned to Normal Status [1530]		None		~
	6	Healthy: AKCP: Dry contact sensor now Normal [1521] Healthy: AKCP: Smoke detector now Normal Status [1518]				
Syslog Process ID	'	Healthy: AKCP: Water sensor now Normal [1519]				
	(Healthy: Alteon: Primary Power Supply Healthy [1409] Healthy: Alteon: Redundant Power Supply Healthy [1410]				
Syslog Message ID		Healthy: APC: Batteries Do Not Need Replacement [946] Healthy: APC: Battery Charge Normal [945]				
	6	Healthy: APC: Battery Run Time Remaining No Longer Critical [942]				
Component Type		Healthy: APC: Calibration Test Completed [954] Healthy: APC: Communication Status Okay [949]				
N/A]		Healthy: APC: Diagnostic Test Passed [953]				
External Event Id		Healthy: APC: Diagnostics Schedule Set [955] Healthy: APC: Percent Battery Remaining No Longer Critical [944]				
	0	Healthy: APC: Temperature has returned to normal [961]				
External Category		Healthy: APC: UPS Not on Battery [950] Healthy: APC: UPS Not Running on Battery [947]				
	6	Healthy: APC: Zero Defective Battery Packs [943]				
Match Logic		Healthy: Blue Coat: attack status normal [1977] Healthy: Brocade Switch: Admin Status Online [1936]				
Text Search]	- 0	Healthy: Brocade Switch: Operational Status Online [1937]				
Use Multi-match 😱		Healthy: Brocade Switch: POST Returned Embed Port Okay [1938] Healthy: Cisco (Tandberg C Series): Auto Answer Mode is now On [1418]				Ŧ
Use Message-match		Healthy: Cisco (Tandberg C Series): DVI Input is now connected [1428]	-			

- Syslog Facility. We selected Match Any.
- Syslog Severity. We selected Match Any.
- First Match String. We entered "Disk space 100%%".
- 6. We left the rest of the fields at their default settings, and then selected the [Save] button.
- 7. When the device reaches 100% capacity, it will trigger an event, which appears in the Event Console. Clicking on the graph icon (11) will bring up the Device Summary page for the device for which the event occurred. Clicking on the life ring icon (12) will create a ticket for the event.

	few: 💌	Save Delete 🎙 🕨 Se	arch: Organi	ization 💌										241 P	ause	Refre
	Organization •	Name •	Ture	Event Message	Severity +	Acknowledged		Note	Ticket	Age / Elapsed	Last Detected +	EID	Source	Count	Notify	
ŧ[]				100	[24He m						AI	•				
10	ystem	HQ-W2K3-JUMP01	Device	C/L File system usage exceeded critical threshold. Limit: 95.0%, Actual: 100.00%	Oritical	2				2 mons 1 wk	2014-10-09 18:00:48	109	Internal	20,955		•
	ystem	daus-rtr-1	Device	Swap Memory has exceeded threshold. (60%) currently (100%)		2				2 mons 1 wk	2014-10-09 18:00:42	618	Dynamic			õ
	lystem		Device	Swap Memory has exceeded threshold. (60%) currently (100%)		2				2 mons 1 wk	2014-10-09 18:00:21	394	Dynamic			ě i
	vstem	System	Organization	Process time exceeded: Process Data Collection: Interface Bandwidth on server MOSS_Pato		2 -				2 mons 1 wk	2014-10-09 18:02:02	708	Internal	582,960		ŏ
	lystem	10.20.0.176	Device	CPU has exceeded threshold: (90%) currently (100%)		0 -				2 mons 1 wk	2014-10-09 18:00:28	4265	1)Dynamic			ŏ
	ystem	10.20.0.191	Device	Physical Memory has exceeded threshold: (80%) currently (100%)	Minor	0 -				2 mona 1 wk	2014-10-09 18:00:43	4281	Dynamic			õ
	ystem	DELL2A72DA	Device	Physical Memory has exceeded threshold: (80%) currently (100%)		2				2 mons 1 wk	2014-10-09 18:00:34	4270	Dynamic			ŏ.
	ystem	HQ-W2K3-JUMP01	Device	Physical Memory has exceeded threshold: (80%) currently (100%)		2	9			2 mons 1 wk	2014-10-09 18:00:30	4280	Dynamic			õ.
5	lystem	ROS-SFO-POProsidiviab.co	or Device	Cisco CRS-1 Series 8 Slots Route Processor has exceeded threshold: (99%) currently (100%)	6) Minor	2	9			11 mins 51 secs	2014-10-09 18:00:29	116308	Dynamic	3		6
	vsten	TriComm	Device	Physical Memory has exceeded threshold: (80%) currently (100%)	Minor	0 -				2 mons 1 wk	2014-10-09 18:00:33	4324	Dynamic			0
s	lysten	TrComm	Device	Disk space 100%%		2 -	2			2 hrs 15 mins	2014-10-09 15:46:29	116171	1)Syslop	1		ă.

8. Clicking on the graph icon (*iii*) will bring up the **Device Summary** page. You will see the event listed in the **Device Summary** page, and you can click on the event to view the **Event Summary** modal page.



E	vent_Information				Close / Esc			
		Actions Acknowledg Clear ik space 100%% tice em7_cu1 minutes 5 seconds @ 2014-10-09 15:46:29 minutes 5 seconds @ 2014-10-09 15:46:29 ample Syslog Policy [2555] slog Event						
	For Event [1161]	71]	Actions	Acknowledg	Clear			
	Event Message	Disk space 100%% Event Message						
	Severity	Notice						
	For Device	🔤 em7_cu1						
	First Occurrence	36 minutes 5 seconds @ 2014-10-09 15:46:	29					
		36 minutes 5 seconds @ 2014-10-09 15:46:	29					
	Occurrence Count	1						
	Acknowledged On							
	Acknowledged By	-						
	Policy Name / ID	Example Syslog Policy [2555]						
	Policy Type	Syslog Event						
	Ticket Description	-						
	Probable Cause & Resolution	Definition: Disk space has reached 100%.						
	Note			S	Save Note			

9. You can also select the **[Logs]** tab from the **Device Summary** page to view the **Device Logs & Messages** page. The syslog message will appear in the device logs, and you can select the View Events icon (^(L)) which will take you to the **Viewing Active Events** page for that device.

Close Logs	<u>S</u> umma <u>E</u> vent	· .	<u>P</u> erfori <u>T</u> ick		Configs ocesses	Services	Interfaces TCP Ports	Organization		
Device Name	em7 cu1				Managed Type	Physical Device			-	
IP Address / ID	10.0.9.5412	52			Category	System.EM7				
Class	ScienceLogi	- Inc				EM7 Data Collector				.:!.:!
	System	o, inc.				1 days, 17:44:37				Data Collector
Organization										
Collection Mode	Active				Collection Time	2014-10-09 18:50:	00		<u> </u>	😕 📶 🖶 🧧
Description	ScienceLogi	: EM7 G3 - I	Data Coll	ector	Group / Collector	CUG MOSS_Patch	_AI0			em7_cu1
Device Hostname									-	
vice Logs & N	essages N	essages	Found	91]					Reset	Guide
	[Search A	I Messages	1 💌	where Message is like						Searc
Date Ti	ne Sour	ce Event ID	Severity							Message
2014-10-09				Disk space 100%%						
2. 2014-10-09				Completed device properties check						
3. 2014-10-09	10:41:12 Inter	nal 115191		Added dynamic application for device: S	SNMP Performance Dy	namic Application				
4. 2014-10-09	10:41:12 Inter	nal		Completed application discovery on dev	rice					
5. 2014-10-09	0:41:12 Inter	nal		Completed TCP/IP port scan						
6. 2014-10-09	0:41:12 Inter	nal		Completed scan for SSL certificates						
7. 2014-10-09	0:41:12 Inter	nal		Completed IP address classification						
8. 2014-10-09	0:41:12 Inter	nal		Completed scheduled rediscovery						
9. 2014-10-08	1:15:08 Inter	nal 113542		System or agent has recently restarted						
0. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Baseboard Product	t Number, previous	value: i945GMx-E	CD new value: 440BX	Desktop Reference Plat	form Row ID
1. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Baseboard Serial N	lumber, previous va	lue: 81201397JE	A4 new value: None Ro	w ID: .0 element: Basel	board Serial I
2. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Baseboard Version	n, previous value: 55	5ADE011450 new	value: None Row ID: .0	element: Baseboard V	ersion, previo
3. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: BIOS Release Date	, previous value: 11	/15/2007 new va	lue: 07/30/2013 Row IE	: .0 element: BIOS Rele	ase Date, pre
4. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: BIOS Vendor, previ	ious value: Phoenix	Technologies, LT	D new value: Phoenix T	echnologies LTD Row I	D: .0 element
5. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: BIOS Version Num	ber, previous value:	i945GMx-BCD/CI	R1.03 Nov.15.2007 A	Open Inc. new value: 6.	00 Row ID: .0
6. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Chassis Manufacti	arer, previous value:	AOpen new val	ue: No Enclosure Row	D: .0 element: Chassis	Manufacture
7. 2014-10-08	11:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Chassis Version, p	revious value: i9450	3Mx-BCD new va	lue: N/A Row ID: .0 ele	ment: Chassis Version,	previous val
8. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .1 eleme	nt: CPU Cache Size, p	revious value: 1024	KB new value: 1	2288KB Row ID: .1 eler	nent: CPU Cache Size, p	previous valu
9. 2014-10-08	11:10:21 Inter	nal		Configuration change: Row ID: .1 eleme	nt: CPU Mhz., previous	s value: 1600.031 ni	ew value: 3458.0	00 Row ID: .1 element:	CPU Mhz., previous val	ue: 1600.031
0. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .1 eleme	nt: CPU Model, previou	us value: Celeron(R)	new value: Xeo	n(R) Row ID: .1 element	t: CPU Model, previous	value: Celero
1. 2014-10-08	11:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Swap Memory Tota	al, previous value: 2	040212 new valu	ie: 14346004 Row D: .	element: Swap Memor	ry Total, previ
2. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Memory Total, prev	ious value: 1017636	5 new value: 122	99168 Row ID: .0 eleme	ent: Memory Total, previ	ous value: 10
3. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Appliance Manufac	cturer, previous valu	e: AOpen new v	alue: VMware, Inc. Rov	v ID: .0 element: Appliar	ice Manufact
4. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Appliance Manufac	turer Model, previou	us value: I945GM	x-BCD new value: VMv	vare Virtual Platform Ro	w ID: .0 elem
5. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Appliance Manufar	cturer Serial, previou	us value: new	value: VMware-56 4d o	d 15 39 bc 12 1d-4f 31	Oc 75 fc ee b
6. 2014-10-08	1:10:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Appliance Manufar	turer Version, previ	ious value: A000	001JW new value: Nor	e Row ID: .0 element: A	Appliance Mar
7. 2014-10-08	1:10:11 Inter	nal 113542		System or agent has recently restarted						
8. 2014-10-08	1:05:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Baseboard Product	t Number, previous	value: 440BX De	ktop Reference Platfor	m new value; i945GMx	BCD Row ID
9. 2014-10-08	1:05:21 Inter	nal		Configuration change: Row ID: .0 eleme	nt: Baseboard Serial N	lumber, previous va	lue: None new v	alue: 81201397JEA4 Ro	w ID: .0 element: Basel	board Serial N

10. From the **Viewing Active Events** page, you can select the information icon (¹) to view the **Event Information** modal page, filter the device's events based on event type, or view graphical reports about that device's events based on type.

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IP Adams 10 10.0.9 £1 [252] Casas Science.opic, Inc. Catacom System Catacom Mass Catacom Mass	Logs		Tickets	Software		Services	TCP Ports	Organization		
IP Adams 10 10.0.9 £1 [252] Casas Science.opic, Inc. Catacom System Catacom Mass Catacom Mass	Device Name	em7 cu1			Managed Type	Physical Device				
Cass Science.logic. Inc. Su-Cass M/D Data Collector Uprime 1 days, 17.49-3.8 Celector Mosk Active Decreptors Science.logic. EM7 G3 - Data Collector Orwer / Celector CuG (MOSS-Patch_AO) Collector Mosk Active Cuerch Table Collector CuG (MOSS-Patch_AO) Collector Mosk Active Cuerch Table Cuerch CuG (MOSS-Patch_AO) Celector Mosk Active Cuerch Table Cuerch CuG (MOSS-Patch_AO) Cuerch Vertex Cuerch Cuerch Cuerch CuG (MOSS-Patch_AO) Cuerch Vertex Cuerch C										
Collection tools Control tools SelenceLogic EM7 G3 - Data Collector Crivia Heatanae Viewing Active Events Event Heasage Seventry Active Lease Event Heasage Seventry Active Lease Event Heasage Seventry Active Lease Total Sames - 2014-10-09 15:46:20 116171 Systeg 1 2 4 5 - 2014-10-09 15:46:20 - 116171 Systeg - 1 2 4 5 - 2014-10-09 15:46:20 - 116171 Systeg - 1 2 4 5 - 2014-10-09 15:46:20 - 116171 Systeg - 1 2 4 5 - 2014-10-09 15:46:20 - 116171 - 2014-10-09 15:46:20 - 2014-10-09 - 2014-1	Class	ScienceLogic, Inc.					r			
Dervore Science2.ogic EM7 G3- Data Colector Orogy / Colecor DUIG (MOSS_Petch_AO Duit (MOSS_PEtch_AO <thduit (="" moss_petch_ao<="" th=""> Duit (MOSS_</thduit>	Organization	System			Uptime	1 days, 17:49:38			С	ollector
Description ScienceLogic EM7 G3 - Data Collector Group / Calebox Quick (MDSS_Patch_ADO Centred Stats Reset Quick Viewing Active Versits Cleaned Stats Reset Quick Event Message 1 Sevency Active/edged Age / Expes Tokk Lass Description Source Cuick Event Message 1 Sevency Active/edged Age / Expes Tokk Lass Description Source Cuick Event Message 1 Sevency Active/edged Age / Expes Tokk Lass Description Source Cuick Event Message 1 Sevency Active/edged Age / Expes Tokk Lass Description Source Cuick Event Message 1 Sevency Tokk 2014-10-09 15:46:29 11117 Systeg 1 Zuick Tokk 2014-10-09 15:46:29 11117 Systeg 1 Zuick Tokk 2014-10-09 15:46:29 11 Zuick 2 1 Zuick 2 </th <th>Collection Mode</th> <th>Active</th> <th></th> <th></th> <th>Collection Time</th> <th>2014-10-09 18:55</th> <th>:00</th> <th></th> <th></th> <th></th>	Collection Mode	Active			Collection Time	2014-10-09 18:55	:00			
/lewing Active Events Event Message I Seventy Adamatedged Apr / Elace Totak Jahra 9 mms - 2014-10-29 1548/29 116171 Systep 1 2 3 hra 9 mms - 2014-10-29 1548/29 116171 Systep 1 2 4 Cerver 100555	Description	ScienceLogic EM7 G	33 - Data Collector		Group / Collector	CUG MOSS_Patcl	_AI0			
Event Message i Seventy Autoroukoged Agr / Expansion Tokket List Descrived EXD Source Court JOak space 100%% - 2014-10-39 15/4629 116171 Systeg 1 2 0 3 hrs 9 mms - 2014-10-39 15/4629 116171 Systeg 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Device Hostname									
⊴Dak space 100%% 2014-10-09 1548-29 116171 Systop 1 24♥	Viewing Active E	vents						Cleared Stats	Reset	Guide
			Event Messsage Severity							
	Disk space 100 ⁴	%%			2	3 hrs	9 mins	2014-10-09 15:46:29 116171	Syslog	1 🖂 🗊 🔲
1 Mile										
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