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# CEF, LEEF & Syslog Support for SIEM User's Guide



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Juniper Networks, Inc.  
1133 Innovation Way  
Sunnyvale, California 94089  
USA  
408-745-2000  
[www.juniper.net](http://www.juniper.net)

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*CEF, LEEF & Syslog Support for SIEM User's Guide*  
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## Documentation and Release Notes

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To obtain the most current version of all Juniper Networks® technical documentation, see the product documentation page on the Juniper Networks website at <https://www.juniper.net/documentation/>.

If the information in the latest release notes differs from the information in the documentation, follow the product Release Notes.

Juniper Networks Books publishes books by Juniper Networks engineers and subject matter experts. These books go beyond the technical documentation to explore the nuances of network architecture, deployment, and administration. The current list can be viewed at <https://www.juniper.net/books>.

## Documentation Conventions

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Table 1 on page x defines notice icons used in this guide.

Table 1: Notice Icons

Icon	Meaning	Description
	Informational note	Indicates important features or instructions.
	Caution	Indicates a situation that might result in loss of data or hardware damage.
	Warning	Alerts you to the risk of personal injury or death.
	Laser warning	Alerts you to the risk of personal injury from a laser.
	Tip	Indicates helpful information.
	Best practice	Alerts you to a recommended use or implementation.

Table 2 on page x defines the text and syntax conventions used in this guide.

Table 2: Text and Syntax Conventions

Convention	Description	Examples
<b>Bold text like this</b>	Represents text that you type.	To enter configuration mode, type the <b>configure</b> command:  user@host> <b>configure</b>
Fixed-width text like this	Represents output that appears on the terminal screen.	user@host> <b>show chassis alarms</b>  No alarms currently active
<i>Italic text like this</i>	<ul style="list-style-type: none"> <li>Introduces or emphasizes important new terms.</li> <li>Identifies guide names.</li> <li>Identifies RFC and Internet draft titles.</li> </ul>	<ul style="list-style-type: none"> <li>A policy <i>term</i> is a named structure that defines match conditions and actions.</li> <li><i>Junos OS CLI User Guide</i></li> <li>RFC 1997, <i>BGP Communities Attribute</i></li> </ul>
<i>Italic text like this</i>	Represents variables (options for which you substitute a value) in commands or configuration statements.	Configure the machine's domain name:  [edit] root@# <b>set system domain-name</b> <i>domain-name</i>

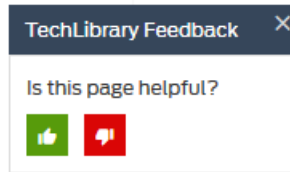
Table 2: Text and Syntax Conventions (continued)

Convention	Description	Examples
Text like this	Represents names of configuration statements, commands, files, and directories; configuration hierarchy levels; or labels on routing platform components.	<ul style="list-style-type: none"><li>To configure a stub area, include the <b>stub</b> statement at the <b>[edit protocols ospf area area-id]</b> hierarchy level.</li><li>The console port is labeled <b>CONSOLE</b>.</li></ul>
< > (angle brackets)	Encloses optional keywords or variables.	<b>stub &lt;default-metric <i>metric</i>&gt;;</b>
(pipe symbol)	Indicates a choice between the mutually exclusive keywords or variables on either side of the symbol. The set of choices is often enclosed in parentheses for clarity.	<b>broadcast   multicast</b>  <b>(<i>string1</i>   <i>string2</i>   <i>string3</i>)</b>
# (pound sign)	Indicates a comment specified on the same line as the configuration statement to which it applies.	<b>rsvp { # Required for dynamic MPLS only</b>
[ ] (square brackets)	Encloses a variable for which you can substitute one or more values.	<b>community name members [ <i>community-ids</i> ]</b>
Indentation and braces ( { } )	Identifies a level in the configuration hierarchy.	<pre>[edit] routing-options {   static {     route default {       nexthop <i>address</i>;       retain;     }   } }</pre>
;(semicolon)	Identifies a leaf statement at a configuration hierarchy level.	
GUI Conventions		
Bold text like this	Represents graphical user interface (GUI) items you click or select.	<ul style="list-style-type: none"><li>In the Logical Interfaces box, select <b>All Interfaces</b>.</li><li>To cancel the configuration, click <b>Cancel</b>.</li></ul>
> (bold right angle bracket)	Separates levels in a hierarchy of menu selections.	In the configuration editor hierarchy, select <b>Protocols&gt;Ospf</b> .

## Documentation Feedback

We encourage you to provide feedback so that we can improve our documentation. You can use either of the following methods:

- Online feedback system—Click TechLibrary Feedback, on the lower right of any page on the [Juniper Networks TechLibrary](#) site, and do one of the following:



- Click the thumbs-up icon if the information on the page was helpful to you.
- Click the thumbs-down icon if the information on the page was not helpful to you or if you have suggestions for improvement, and use the pop-up form to provide feedback.
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## Requesting Technical Support

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Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or Partner Support Service support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at <https://www.juniper.net/us/en/local/pdf/resource-guides/7100059-en.pdf>.
- Product warranties—For product warranty information, visit <https://www.juniper.net/support/warranty/>.
- JTAC hours of operation—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

## Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: <https://www.juniper.net/customers/support/>
- Search for known bugs: <https://prsearch.juniper.net/>
- Find product documentation: <https://www.juniper.net/documentation/>
- Find solutions and answer questions using our Knowledge Base: <https://kb.juniper.net/>
- Download the latest versions of software and review release notes: <https://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://kb.juniper.net/InfoCenter/>

- Join and participate in the Juniper Networks Community Forum:  
<https://www.juniper.net/company/communities/>
- Open a case online in the CSC Case Management tool: <https://www.juniper.net/cm/>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://entitlementsearch.juniper.net/entitlementsearch/>

## Opening a Case with JTAC

You can open a case with JTAC on the Web or by telephone.

- Use the Case Management tool in the CSC at <https://www.juniper.net/cm/>.
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see <https://www.juniper.net/support/requesting-support.html>.



## CHAPTER 1

# CEF, LEEF & Syslog Support for SIEM User's Guide

- [SIEM Syslog, LEEF and CEF Logging on page 15](#)
- [Sample CEF and Syslog Notifications on page 22](#)
- [Syslog Malware Event Infection Notification Example on page 26](#)
- [Installing the QRadar Juniper ATP Appliance DSM for LEEF Alerts on page 39](#)

## SIEM Syslog, LEEF and CEF Logging

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The Juniper ATP Appliance platform collects, inspects and analyzes advanced and stealthy web, file, and email-based threats that exploit and infiltrate client browsers, operating systems, emails and applications. Juniper ATP Appliance's detection of malicious attacks generates incident and event details that can be sent to connected SIEM platforms in CEF, LEEF or Syslog formats. This guide provides information about incident and event collection using these formats.

Juniper ATP Appliance generates LEEF or CEF logs for Download (DL) and Infection (IN) incidents, including phishing (PHS, DL + PHS), for the following event types.

- http | email | cnc | submission | exploit | data theft



**NOTE:** DL (Download)-based CEF Logs contain the hash and file type of the downloaded malware file. IN (Infection)-based CEF Logs do not provide a hash and file type.

Identity information is also sent as part of SIEM. Refer to Active Directory integration information, external collector options, and other Advanced Threat Analytics and Anti-SIEM filtering options available from the Operator's Guide.



**NOTE:** This guide focuses on CEF, LEEF and Syslog outputs for SIEM mapping and integration. Juniper ATP Appliance also provides JSON-based HTTP API results and ASCII TEXT notifications that are not discussed in this guide; refer to the Juniper ATP Appliance HTTP API Guide for more information.

In addition, Juniper ATP Appliance extended Syslog functionality in a previous release and added more details to Syslog messaging. Syslog alerts are sent for the following Incident and event types:

- Downloads
- Infections
- Exploits
- Email Downloads
- Phishing
- File Uploads (malware analysis)
- Data Theft
- Endpoint Identity information

Juniper ATP Appliance has added extra fields to the Syslog output such as externalID (Incident ID), eventID (Event ID), and so on. All extra fields are included in this document.

The Juniper ATP Appliance Central Manager WebUI Config> Notifications> SIEM Settings provides the option to configure event and system audit notifications for CEF-format, LEEF-format, or SYSLOG SIEM servers. The servers, in turn, must be configured to receive the Juniper ATP Appliance notifications in CEF, LEEF and Syslog formats (provide hostname and port number for Syslog).

Configure SIEM Settings in order to have Events or System Audit notifications sent to designated hosts aslogs in either CEF, LEEF or Syslog format.

*Figure 1: Setting SIEM Notification*

The screenshot shows the Juniper ATP Appliance WebUI Config page for SIEM Settings. The page has a dark blue header with the title "ADVANCED THREAT PREVENTION APPLIANCE" and navigation links for "Refresh Data", "System Health", and "juniper Doc". The main navigation bar includes "Dashboard", "Incidents", "File Uploads", "Mitigation", "Reports", "Custom Rules", and "Config". The left sidebar shows "Notifications" with sub-items "Alert Settings" and "SIEM Settings", "System Profiles", and "Environmental Settings". The "SIEM Settings" section is active, showing a form for configuring SIEM settings. The form includes fields for "Data Type" (Events, System Audit, System Health), "Format" (CEF, LEEF, Syslog), "Message Severity" (All messages, Critical, High or Med, Critical or High), "Severity" (By Schedule, Trigger), "Host Name", "Port Number", and a checkbox for "Use Standard CEF". A "Cancel" button is visible. Below the form, there is a table titled "Active SIEMs" with columns for "Description", "Delivery", and "Actions".



Note that if selecting Syslog as the SIEM setting when configuring System Health alerts, you can choose to include the Hostname or Process name in the Syslog messages that are sent from the Juniper ATP Appliance: Show Hostname and Show Process Name:

- [To create a new SIEM notification: on page 17](#)
- [Using CEF Alert event\\_id or incident\\_id to Display Details in Web UI on page 17](#)
- [To display, delete or edit an Active SIEM connector configuration: on page 17](#)
- [Alert notification configuration options on page 18](#)
- [Syslog Trap Sink Server on page 19](#)
- [CEF, LEEF and Syslog Format on page 19](#)
- [LEEF FORMAT on page 19](#)
- [CEF FORMAT on page 20](#)
- [CEF Field Definitions on page 20](#)
- [Juniper ATP Appliance CEF Notification Example on page 21](#)

### To create a new SIEM notification:

1. Navigate to the Config>Notifications page and select SIEM Settings from the left panel menu.
2. Click Add New SIEM Connector to set up a new Events, System Audit or System Health log notification in CEF, LEEF or Syslog format.
3. Select from the available options and click Add to complete the configuration and add the new SIEM connector configuration to the Active SIEMS list.

### Using CEF Alert event\_id or incident\_id to Display Details in Web UI

Given an incident\_id or event\_id, you can use the following URLs to display relative details in the Juniper ATP Appliance Web UI.

Replace "JATP\_HOSTNAME\_HERE" with your Juniper ATP Appliance host name, and replace "0000000" with the event\_id or incident\_id.

- [https://JATP\\_HOSTNAME\\_HERE/admin/index.html?incident\\_id=0000000](https://JATP_HOSTNAME_HERE/admin/index.html?incident_id=0000000)
- [https://JATP\\_HOSTNAME\\_HERE/admin/index.html?event\\_id=0000000](https://JATP_HOSTNAME_HERE/admin/index.html?event_id=0000000)



**NOTE:** The system will prompt for login/password if no login session is currently active.

### To display, delete or edit an Active SIEM connector configuration:

1. To display a recent report, or delete or edit an existing SIEM configuration, click Display, Delete or Edit, respectively, in the Active SIEM table for a selected configuration row.
2. Edit, modify or delete the current settings and fields as desired, then click Save.

## Alert notification configuration options

Alert notifications for SIEM events or system audits are available only if Outgoing Mail Settings are configured from the Config>System Settings menu.

Descriptions of Events alert settings are provided in the following tables.

**Table 3: Events SIEM Settings**

Type	Select the type of SIEM connector notification to be configured:  Event
Format	Select CEF or Syslog as the notification output format.
Malware Severity	To filter the log notification by malware severity results, choose either:  All Malware   Critical, High or Med   Critical or High
Generate On	Select Trigger or By Schedule to set the method by which a SIEM Events log is generated.  If "By Schedule" is selected, then select a Day, then enter a Time in the format 00:00 am or pm to set the day(s) and time at which the alert is to be generated.
Host Name	Enter the host name of the CEF or Syslog server.
Port Number	Enter the port number of the CEF or Syslog server.

**Table 4: System Audit SIEM Settings**

Type	Select the type of SIEM notification to be configured:  System Audit
Format	Select CEF or Syslog as the notification output format.
Event Type	Select the event type(s) to include in the alert notification:  Login/Logout   Failed logins   Add/Update Users   System Settings   Restarts
Format	Select CEF or Syslog as the log output format.
Generate On	Select Trigger or By Schedule to set the method by which a SIEM System Audit log is generated.  If "By Schedule" is selected, then select a Day, then enter a Time in the format 00:00 am or pm to set the day(s) and time at which the alert is to be generated.

**Table 5: System Health SIEM Settings**

Type	Select the type of SIEM connector log to be configured:  System Health
------	--

Table 5: System Health SIEM Settings (continued)

Health	Select the health report type(s) to include in the SIEM log:  Overall Health   Processing Delay
Format	Select CEF or Syslog as the log output format.  Note that if selecting Syslog as the SIEM setting when configuring System Health alerts, you can choose to show or hide the Hostname or Process name in the Syslog messages that are sent from the Juniper ATP Appliance: show Hostname and Show Process Name.
Generate On	Select Trigger or By Schedule to set the method by which a SIEM System Audit log is generated.  If "By Schedule" is selected, then select a Day, then enter a Time in the format 00:00 am or pm to set the day(s) and time at which the alert is to be generated.

## Syslog Trap Sink Server

When configuring a Juniper ATP Appliance to generate alert notifications in CEF or Syslog format, an administrator must confirm that the rsyslog trap-sink SIEM server supports CEF. The CEF output is accessible for parsing only on the rsyslog server and cannot be viewed from the Juniper ATP Appliance CLI or Web UI.

## CEF, LEEF and Syslog Format

Common Event Format (CEF) and Log Event Extended Format (LEEF) are open standard syslog formats for log management and interoperability of security related information from different devices, network appliances and applications. This open log format is adopted by Juniper ATP Appliance for sending Juniper ATP Appliance malware event, system audit and system health notifications to the configured channel.

## LEEF FORMAT

As LEEF events are received, QRadar performs traffic analysis and inspects event traffic to identify the sending device or appliance traffic. When traffic analysis identifies an event source, the first 25 events are categorized as SIM Generic Log DSM events with the event name set as Unknown Log Event. After the event traffic is identified, QRadar creates a log source to categorize and label events that have been forwarded from the sending appliance or software. Events sent from the sending device are viewable in QRadar on the Log Activity tab.

Refer to the QRadar Log Event Extended Format (LEEF) Guide at [https://www.ibm.com/support/knowledgecenter/SS42VS\\_DSM/b\\_Leef\\_format\\_guide.pdf](https://www.ibm.com/support/knowledgecenter/SS42VS_DSM/b_Leef_format_guide.pdf) for more information.



**NOTE:** For information about installing the Juniper ATP Appliance DSM plugin, refer to "Installing the QRadar Juniper ATP Appliance DSM for LEEF Alerts" on page 39.

## CEF FORMAT

The standard CEF format is:

```
CEF:Version|Device Vendor|Device Product|Device Version|Signature
ID|Name|Severity|Extension
```

The Juniper ATP Appliance CEF format is as follows:

```
CEF:0|JATP|Cortex|<JATP version 5.0>|<event type:
http,email,datatheft...>|<malware name>|<incident risk mapping to 0-
10>|externalId=<JATP Incident ID> eventId=<JATP event ID> <ExtensionField=value...>...
```

The CEF format contains the most relevant malware event, system audit or system health information, making it available for event consumers to parse and to use the data interoperably. To integrate events, the syslog message format is used as a transport mechanism. This mechanism is structured to include a common prefix applied to each message, and contains the date and hostname as shown below:

```
<timestamp in UTC> host <message>
where message=<header>|<extension>
```

Here is the common prefix as shown in Splunk:

```
<Timestamp in UTC> <server-fully-qualified domain name of the Juniper ATP box> <CEF
format>
```

Here is the priority header format for Syslog:

```
<Syslog Priority> Timestamp Hostname Processname: SyslogContent
```

Syslog Priority is 134.

Syslog Facility is User-level and Syslog Severity is Notice. Hostname and Processname are configured from the SIEM Settings configuration page by checking the Show Hostname and Show Process Name options (see figure above).

Definitions for the primary CEF fields as well as the “[CEF Extension Field Key=Value Pair Definitions](#)” on page 29 are provided in the following sections.

## CEF Field Definitions

*Table 6: Field Definitions*

Definition	Definition
Version	<p>An integer that identifies the version of the CEF format. This information is used to determine what the following fields represent.</p> <p>Example: 0</p>

Table 6: Field Definitions (continued)

Definition	Definition
Device Vendor Device Product Device Version	<p>Strings that uniquely identify the type of sending device. No two products Dec use the same device-vendor and device-product pair, although there is no central authority that manages these pairs. Be sure to assign unique name pairs.</p> <p>Example: JATP Cortex 3.6.0.12</p>
Signature ID/ Event Class ID	<p>A unique identifier in CEF format that identifies the event-type. This can be a string or an integer. The Event Class ID identifies the type of event reported.</p> <p>Example (one of these types):</p> <p>http  email  cnc  submission  exploit  datatheft</p>
Malware Name	<p>A string indicating the malware name.</p> <p>Example: TROJAN_FAREIT.DC</p>
Severity/Incident Risk Mapping	<p>An integer that reflects the severity of the event. For the Juniper ATP Appliance CEF, the severity value is an incident risk mapping range from 0-10</p> <p>Example: 9.</p>
External ID	<p>The Juniper ATP Appliance incident number.</p> <p>Example: externalId=1003</p>
Event ID	<p>The Juniper ATP Appliance Event ID number.</p> <p>Example: eventId=13405</p>
Extension	<p>A collection of key-value pairs; the keys are part of a predefined set. An event can contain any number of key- value pairs in any order, separated by spaces.</p> <p><b>NOTE:</b> Review the definitions for these extension field labels provided in the section: "<a href="#">CEF Extension Field Key=Value Pair Definitions</a>" on page 29.</p>



**TIP:** Timestamp format for Syslog is M D H:i:s

## Juniper ATP Appliance CEF Notification Example

The following CEF example is defined per field and label:

```
CEF:Version|Device Vendor|Device Product|Device Version|Signature
ID|Name|Severity|Extension
```

The Juniper ATP Appliance CEF format is as follows:

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|cnc|TROJAN_Zemot.CY|7|externalId=995
```

```
eventId=123 lastActivityTime=2016-01-23 17:36:39.841+00
src=50.154.149.189 dst=192.168.1.10 malwareSeverity=0.5
malwareCategory=Trojan_DataTheft cncServers=50.154.149.189
Nov 23 17:36:39 10-3 : Timestamp in UTC 2016-01-23 17:36:39.841+00
tap00.test.JATP.net : Server-fully-qualified domain name of the JATP box
CEF:0 : CEF version is 0
JATP : Device vendor is Juniper
Cortex : Device product is Cortex
5.0 : Device version (Version number as shown in the GUI)
cnc : Type of event
TROJAN_Zemot.CY : Name of the malware
7 : Severity (range between 0-10)
995 : External ID
123 : Event ID
2016-01-23 17:36:39.841+00 : Last Activity Time stamp
50.154.149.189 : Source IP Address
192.168.1.10 : Destination IP Address
0.5 : Malware Severity Rating
Trojan_DataTheft : Malware Category
31.170.165.131 : CnC server IP Address
```

**See Also** • [Sample CEF and Syslog Notifications on page 22](#)

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## Sample CEF and Syslog Notifications

Sample CEF, LEEF, and Syslog notification examples are shown for various event types in this section.

The definitions for each of the <extension> field keys per event type are provided in the section “[CEF Extension Field Key=Value Pair Definitions](#)” on [page 29](#)



**NOTE:** Be aware that if a value is null, the label will still display in the notification; for example, dst= and filename remain blank in the CEF message:

```
eventId=13423 lastActivityTime=2016-7-26 21:50:50+00 dst=
fileHash=c01e057e6b7115057d9465311346f198a7fed574 fileName=
fileType=PE32 executable
```

CEF Phishing Event Examples:

Phishing events are included in CEF/Syslog. Here are few examples:

- 
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  - [Example 2: Email Sent to Multiple Recipients with Malicious Attachment on page 23](#)
  - [Example 3: Email Sent to Multiple Recipients with Multiple Bad URLs \(Separated by Space\) and Attachment on page 23](#)
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- CEF Download (DL) Malware Event Notification Examples on page 24
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- LEEF Event Examples on page 25

### Example 1: Email with Both Malicious URL and Attachment

```
Dec 6 16:52:22 IP Dec 06 16:51:38 hostname
CEF:0|JATP|Cortex|3.6.0.1444|email|Phishing|8|externalId=1504
eventId=14067 lastActivityTime=2016-12-06 23:51:38+00 src= dst=
src_hostname= dst_hostname= src_username= dst_username=
src_email_id=src@abc.comdst_email_id={test@abc.com} startTime=2016-12- 06
23:51:38+00
url=http://greatfilesarey.asia/QA/files\_to\_pcaps/74280968a4917da52b5555351eeda969.bin
fileHash=bce00351cfc559afec5beb90ea387b03788e4af5 fileType=PE32
executable (GUI) Intel 80386, for MS Windows
```

### Example 2: Email Sent to Multiple Recipients with Malicious Attachment

```
Dec 9 19:47:19 IP Dec 09 19:49:36 hostname
CEF:0|JATP|Cortex|3.6.0.1444|email|TROJAN_GIPPERS.DC|8|externalId=1505
eventId=14068 lastActivityTime=2016-05-10 02:49:36+00 src= dst=
src_hostname= dst_hostname= src_username= dst_username=
src_email_id=src@abc.com
dst_email_id={test1@abc.com,test2@abc.com,test3@abc.com}
fileHash=bce00351cfc559afec5beb90ea387b03788e4af5 fileType=PE32
executable (GUI) Intel 80386, for MS Windows startTime=2016-05-10
02:49:36.000000+00
```

### Example 3: Email Sent to Multiple Recipients with Multiple Bad URLs (Separated by Space) and Attachment

```
Dec 3 16:42:24 IP Dec 03 16:42:54 hostname
CEF:0|JATP|Cortex|3.6.0.1444|email|Phishing|8|externalId=1499
eventId=14058 lastActivityTime=2016-05-03 23:42:54+00 src= dst=
src_hostname= dst_hostname= src_username= dst_username=
src_email_id=src@abc.com
dst_email_id={test1@abc.com,test2@abc.com,test3@abc.com} startTime=2016-
05-03 23:42:54+00 url=http://greatfilesarey.asia/QA/files\_to\_pcaps/74280968a4917da52b5555351eeda969.bin
http://greatfilesarey.asia/QA/files\_to\_pcaps/1813791bcecf3a3af699337723a30882.bin
fileHash=bce00351cfc559afec5beb90ea387b03788e4af5 fileType=PE32
executable (GUI) Intel 80386, for MS Windows
```

### Example 4: Infection Event for which Identity Information is Obtained from Active Directory

```
Dec 2 17:17:25 IP Dec 02 17:08:08 hostname
CEF:0|JATP|Cortex|3.6.0.1444|cnc|TROJAN_DUSVEXT.CY|10|externalId=1489
eventId=14046 lastActivityTime=2016-05-03 00:08:08.349+00
src=31.170.165.131 dst=172.20.1.201 src_hostname=
dsthostname=emailuser-host src_username= dst_username=emailuser
malwareSeverity=0.75 malwareCategory=Trojan_Generic
cncServers=31.170.165.131
```

**CEF System Health Notification Example:**

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.3|3|services-health|5|desc=Behavior Engine is
not running json={"status": "0", "service": "Behavior Engine"}
source = udp:514 sourcetype = syslog
```

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.3|3|appliance-connect-health|5|desc=Lost
connection to web_collector upgrade (10.2.11.107) for 10 minutes
json={"ip": "10.2.11.107", "age": 10.3804142, "type": "web_collector",
"appliance": "upgrade", "pretty_age": "10 minutes"}
```

**Syslog System Health Notification Example:**

```
<134>Nov 24 17:22:56 tap54.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|3|traffic-health|5|desc=10.2.20.54
(10.2.20.54) received 0 KB of monitor traffic over last 10 minutes
json={"pretty_age": "10 minutes", "ip": "10.2.20.54", "age": 10,
"appliance": "10.2.20.54", "sample_size": 2, "traffic": "0"}
```



**NOTE:** The priority value in syslog headers from pcaps is "134". The Juniper ATP Appliance mirrors the output of CEF for the fields supported by Syslog to generate Syslog output

**CEF Download (DL) Malware Event Notification Examples**

```
2016-7-11 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.12|http|TROJAN_Zemot.CY|5|eventId=123
src=50.154.149.189 dst=192.168.1.10 startTime=2016-6-30
01:05:16.001+00fileHash=1d81e21db086a2c385696f17f17bdde6d4be04d
fileName=ccaed7c3c6e58a2844c9896246997f62.bin fileType=PE32 executable
(GUI) Intel 80386, for MS Windows startTime=2016-08-11 17:36:39.841+00
```

**Syslog Download (DL) Malware Event Notification Examples**

```
<134>Nov 23 21:58:05 tap54.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|http|TROJAN_GIPPERS.DC|8|externalId=374
eventId=13348 lastActivityTime=2016-02-24 05:58:05.151123+00
src=172.16.0.1 dst=10.1.1.26
fileHash=acf69d292d2928c5ddfe5e6af562cd482e6812dc
fileName=79ea1163c0844a2d2b6884a31fc32cc4.bin fileType=PE32 executable
(GUI) Intel 80386, for MS Windows startTime=2016-02-24
05:58:05.151123+00
```

**CEF HTTP Malware Event Notification Example**

```
Dec 31 16:43:47 10-3 2016-12-26 18:06:52.333023+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.12|http|TROJAN_FAREIT.DC|10|13405
lastActivityTime=2016-12-26 18:06:52.333023+00 src=172.16.0.1
```



```
dst=10.1.1.44 fileHash=6ff61bec9baa970df54c69fbef1209004a01f068
fileName=e309ea0c7271f3845d86621717220479.bin fileType=PE32 executable
(GUI) Intel 80386, for MS Windows startTime=2016-12-26
18:06:52.333023+00
```

## LEEF Event Examples

### LEEF log for Download

```
<134>Sep 24 16:23:36 ovf-core.eng.ovf-core.com
LEEF:1.0|Cyphort|Cortex|5.0.4.16|http|src=172.16.1.101 dst=172.16.1.105
usrName= devTime=2018-09-24 16:23:36 PDT cat=malware
devTimeFormat=yyyy-MM-dd HH:mm:ss z sev=10 dst_hostname= src_hostname=
src_username= incidentId=2614 eventId=80543
fileHash=a1e6d991e4464e7c018182951faa468c42ca3937 fileType=Composite Document
File V2 Document, Little Endian, Os: Windows, Version 6.1, Code page: 1251,
Author: Jonh Deddi, Last Saved By: Jonh Deddi, Name of Creating Application:
Microsoft Excel, Create Time/Date: Mon Aug 24 23:23:16 2015, Last Saved
Time/Date: Tue Aug 25 11:54:39 2015, Security: 0
fileName=61646e7802b449ee02f7269129079829b5eae37c0b934b40475f1f0e94409ad4
malwareName=HEUR_MACRO fileHashMd5=7aeaa812c00fcf77d4214f430078e3c4
```

LEEF log for 3rd party log ingestion (Virus scan log from Symantec)

### LEEF log for 3rd party log ingestion (Virus scan log from Symantec)

```
<134>Sep 24 14:23:41 ovf-core.eng.ovf-core.com
LEEF:1.0|Cyphort|Cortex|5.0.4.16|third_party|src= dst=169.254.31.242
usrName=Administrator devTime=2018-09-24 14:23:41 PDT cat=malware
devTimeFormat=yyyy-MM-dd HH:mm:ss z sev=3 dst_hostname= src_hostname=
src_username= incidentId=2613 eventId=80517 malwareName=Virus
Scan
```

### LEEF for email with both phishing links and also a malicious attachment

```
<134>Sep 12 12:27:24 ovf-core.eng.ovf-core.com
LEEF:1.0|Cyphort|Cortex|5.0.4.12|email|src= dst= usrName=
devTime=2018-09-12 12:27:24 PDT cat=malware devTimeFormat=yyyy-MM-dd
HH:mm:ss z sev=10 url=http://www.two-of-us.at/images/W.exe
http://lm.beilequ.com/update/365/365weatherIns_61.rar
http://abc.adamoads.com/fda dst_hostname= src_hostname= src_username=
src_email_id=kalyan@cyphort.com dst_email_id=jane.doe@cydevel.com
incidentId=2531 eventId=78703
fileHash=1f0b0376c0f39b33673363d61294abfaab9fb837 fileType=Composite Document
File V2 Document, Little Endian, Os: Windows, Version 5.1, Code page: 936,
Title: PowerPoint Presentation, Last Saved By: MC SYSTEM, Revision Number: 5,
Name of Creating Application: Microsoft PowerPoint, Total Editing Time: 01:28,
Last Saved Time/Date: Sat Sep 29 04:42:55 2007, Number of Words: 2
malwareName=EXPLOIT_OFFICE_XDS
email_msg_id=CAB08cN_mCTN5XAL+G=C40cVXry7eiKm4uctkguf2Lqvv_KfWrg@mail.gmail.com
fileHashMd5=17e9e5a4c807f3d2d50ba512542c982c
```

## Related Documentation

- [Syslog Malware Event Infection Notification Example on page 26](#)

## Syslog Malware Event Infection Notification Example

---

```
<134>Nov 23 21:58:05 tap54.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|cnc|TROJAN_Vertexbot.CY|5|externalId=353
eventId=13321 lastActivityTime=2016-02-24 02:17:25.638+00
src=31.170.165.131 dst=10.1.1.48 malwareSeverity=0.5
malwareCategory=Unknown cncServers=31.170.165.131
```

### CEF Email Malware Event Notification Example:

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|email|TROJAN_Zemot.CY|7|externalId=995
eventId=123 lastActivityTime=2016-01-23 17:36:39.841+00
src=50.154.149.189 dst=192.168.1.10
fileHash=d93216633bf6f86bc3076530b6e9ca6443fc75b5 fileName=abc.bin
fileType=Zip archive data, at least v2.0 to extract startTime=2016-01-23 17:36:39.841+00
```

### Syslog Email Malware Event Notification Example:

```
<134> Nov 23 18:50:00 tap0.test.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|email|TROJAN_Zemot.CY|7|externalId=995
eventId=123 lastActivityTime=2016-01-23 17:36:39.841+00
src=50.154.149.189 dst=192.168.1.10
fileHash=d93216633bf6f86bc3076530b6e9ca6443fc75b5 fileName=abc.bin
fileType=Zip archive data, at least v2.0 to extract startTime=2016-01-23 17:36:39.841+00
```

### CEF CnC Notification Example:

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|cnc|TROJAN_Zemot.CY|7|externalId=995
eventId=123 lastActivityTime=2016-01-23 17:36:39.841+00
src=50.154.149.189 dst=192.168.1.10
malwareSeverity=0.5 malwareCategory=Trojan_DataTheft cncServers=50.154.149.189
```

### Syslog CnC Notification Example:

```
<134> Nov 23 18:50:00 tap0.test.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|cnc|TROJAN_Zemot.CY|7|externalId=995
eventId=123 lastActivityTime=2016-01-23 17:36:39.841+00
src=50.154.149.189 dst=192.168.1.10 malwareSeverity=0.5
malwareCategory=Trojan_DataTheft cncServers=50.154.149.189
```

### CEF File Submission Notification Example:

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|submission|TROJAN_Zemot.CY|7|externalId=995
eventId=123 lastActivityTime=2016-01-23 17:36:39.841+00
src=50.154.149.189 dst=192.168.1.10
fileHash=d93216633bf6f86bc3076530b6e9ca6443fc75b5 fileName=abc.bin
fileType=Zip archive data, at least v2.0 to extract submissionTime=2016- 01-23
17:36:39.841+00
```

**Syslog File Upload Notification Example:**

```
<134>Nov 23 21:58:05 tap54.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|submission|VIRUS_NABUCUR.DC|5|externalId=354
eventId=13322 lastActivityTime=2016-02-24 02:25:05.163039+00src=
fileHash=12b1777e451ef24bcc940bc79cdd7a0ffb181d78 fileName=
fileType=PE32 executable (GUI) Intel 80386, for MS Windows
submissionTime=2016-02-24 02:25:05.163039+00
```

**CEF Exploit Notification Example:**

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|exploit|Exploit|7|externalId=995 eventId=123
lastActivityTime=2016-01-23 17:36:39.841+00 src=50.154.149.189
dst=192.168.1.10 reqReferer=http://forums.govteen.com/content.php
url=http://64.202.116.151/nzrems2/1
```

**Syslog Exploit Notification Example:**

```
<134>Nov 23 21:58:05 tap54.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|exploit|Exploit|3|externalId=352
eventId=13319 lastActivityTime=2016-02-24 02:18:21.105811+00
src=64.202.116.124 dst=192.168.50.203 reqReferer=http:// www.christianforums.com/
url=http://64.202.116.124/5butqfk/?2
```

**CEF Data Theft Notification Example:**

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|datatheft|2ND_ORDER_DLP_CUSTOMIZED :
CreditCard_Rule|7|externalId=995 eventId=123 lastActivityTime=2016-01-23
17:36:39.841+00 src=50.154.149.189 dst=192.168.1.10
description=2ND_ORDER_DLP_CUSTOMIZED : CreditCard_Rule port=80
protocol=HTTP startTime=2016-01-23 17:36:39.841+00
```

**Syslog Data Theft Notification Example:**

```
<134> Nov 23 18:50:00 tap0.test.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|datatheft|2ND_ORDER_DLP_CUSTOMIZED :
CreditCard_Rule|7|externalId=995 eventId=123 lastActivityTime=2016-01-23
17:36:39.841+00 src=50.154.149.189 dst=192.168.1.10
description=2ND_ORDER_DLP_CUSTOMIZED : CreditCard_Rule port=80
protocol=HTTP startTime=2016-01-23 17:36:39.841+00
```

**CEF System Health Notification Example:**

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|3|traffic-health|5|desc=10.2.20.54
(10.2.20.54) received 0 KB of monitor traffic over last 10 minutes
json={"pretty_age": "10 minutes", "ip": "10.2.20.54", "age": 10,
"appliance": "10.2.20.54", "sample_size": 2, "traffic": "0"}
```

**Syslog System Health Notification Example:**

```
<134>Nov 24 17:12:55 tap0.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|3|link-health|5|desc=Link eth1 on 10.2.20.54
(10.2.20.54) is down json={"interface": "eth1", "ip": "10.2.20.54",
"appliance": "10.2.20.54", "app_id": "467dea60-d7da-11dd-83c7-
10bf48d79a6e", "up": false}
```

#### CEF System Audit Notification Examples:

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|2|update-system-config|5|desc=descriptio
json={ "user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" :
"test.JATP", "is_admin" : 0, "has_debug": 1, "reset_password" : 1}
```

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|2|update-smtp|5|desc=description json={
"user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" :
"test.JATP", "is_admin" : 0, "has_debug": 1, "reset_password" : 1}
```

```
2016-01-23 17:36:39.841+00 tap0.test.JATP.net
CEF:0|JATP|Cortex|3.6.0.15|2|reboot|5|desc=description json={ "user_id"
: "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP",
"is_admin" : 0, "has_debug": 1, "reset_password" : 1}
```

#### Syslog System Audit Notification Examples:

```
<134>Nov 24 14:32:59 tap0.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|2|add-user|5|username=admin desc=Delete user
'jane' with id 'f263f0b1-353e-046c-1577-6adc1c96cb62' json={ "user_id" :
"f263f0b1-353e-046c-1577-6adc1c96cb62", "user_name" : "jane"}
<134>Nov 24 14:31:20 tap0.eng.JATP.net JATP:
CEF:0|JATP|Cortex|3.6.0.15|2|update-user|5|username=admin desc=Updated
user id '27ee212e-855d-08d4-953f-6b9cea46a679': name 'john', is admin:
yes, has debug: yes, reset password: no json={ "user_id" : "27ee212e-
855d-08d4-953f-6b9cea46a679", "user_name" : "john", "is_admin" : 1,
"has_debug": 1, "reset_password" : 0}
```

- [Using CEF Alert eventID or incidentID to Display Details in the Juniper ATP Appliance Web UI on page 28](#)
- [CEF Extension Field Key=Value Pair Definitions on page 29](#)

## Using CEF Alert eventID or incidentID to Display Details in the Juniper ATP Appliance Web UI

Given an incidentID or eventID, you can use the following URLs to display relative details in the Juniper ATP Appliance Web UI.

Replace "JATP\_HOSTNAME\_HERE" with your Juniper ATP Appliance host name, and replace "0000000" with the event\_id or incident\_id.

- [https://JATP\\_HOSTNAME\\_HERE/admin/index.html?incident\\_id=0000000](https://JATP_HOSTNAME_HERE/admin/index.html?incident_id=0000000)
- [https://JATP\\_HOSTNAME\\_HERE/admin/index.html?event\\_id=0000000](https://JATP_HOSTNAME_HERE/admin/index.html?event_id=0000000)



**NOTE:** The system will prompt for login/password if no login session is currently active.

## CEF Extension Field Key=Value Pair Definitions

Juniper ATP Appliance uses the following parameters in its CEF extension field key=value pairs. The keys in extension have "=" sign; for example: cncServers=a.b.c.d eventId=123. The fields before extensions are surrounded by pipes ("|"); for example: |login|, |cnc|, |JATP|.

The following table defines each extension field key in CEF and/or Syslog messages.

*Table 7: Extension field keys in CEF and/or Syslog messages*

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
description=	description	Audit	String	description=update-user
Only for System Audit	desc is the description of the system audit event		1023 characters	
json=	<p>json output sends different data depending on what kind of System Audit event is referenced.</p> <p>The following sample json= is for update-user:</p> <pre>json = { "user_id" : "2721f188-682e-03d0-6dfa-5d5d688047b6", "username" : "test.JATP", "is_admin" : 0, "has_debug": 1, "reset_password" : 0 }</pre>	Audit	String 1023 characters	<p>json=</p> <p>This json= field is for login:</p> <pre>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 login 5 username=a dmin desc=description</pre> <pre>json={ "user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP", "is_admin" : 0, "has_debug": 1, "reset_password" : 1 }</pre>
login	Login	Audit	String	<pre>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 login 5 username=a dmin desc=description</pre> <pre>json={ "user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP", "is_admin" : 0, "has_debug": 1, "reset_password" : 1 }</pre>

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
login-fail	Login failure	Audit	String	login-fail  <134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 loginfail 5 username=admin desc=description  json={ "user_id": "8d7c450edf6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }
logout	Lockout	Audit	String	logout  <134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 logout 5 username= admin desc=description  json={ "user_id": "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }
add-user	Add User	Audit	String	add-user  <134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 adduser 5 username=admin desc=description  json={ "user_id": "8d7c450edf6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }
update-user	Update User	Audit	String	update-user  <134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 updateuser 5 username=admin desc=description  json={ "user_id": "8d7c450edf6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
update-system-config	System Config Update	Audit	String	<p>update-system-config</p> <p>&lt;134&gt;Nov 24 14:35:48 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 update-systemconfig  5 username=adm in desc=Updated update settings: software auto update: 'yes', Set hostname: 'tap0', Set server_fqdn: 'tap0.eng.JATP.net', Set ivp_format : 'application/ zip' remote shell enabled: yes</p> <p>json={ "do_auto_update" : 1, "hostname" : "tap0", "server_fqdn" : "tap0.eng.JATP.net", "ivp_format" : "application/zip", "remote_shell_enabled" : 1</p>
reboot	Reboot	Audit	String	<p>reboot</p> <p>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 reboot 5 username =admin desc=description</p> <p>json={ "user_id" : "8d7c450edf6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP", "is_admin" : 0, "has_debug":1, "reset_password" : 1}</p>
appliance-connecthealth	health of appliance connection	Audit	String	<p>appliance-connecthealth</p> <p>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 appliance-connecthealth  5 username=adm in desc=description</p> <p>json={ "user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP", "is_admin" : 0, "has_debug":1, "reset_password" : 1}</p>
link-health	Link health			<p>link-health</p> <p>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 linkhealth  5 username=adm in desc=description</p> <p>json={ "user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP", "is_admin" : 0, "has_debug":1, "reset_password" : 1}</p>

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
traffic-health	Traffic health			traffic-health  <134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 traffichealth 5 username=admin desc=description  json={ "user_id" : "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name" : "test.JATP", "is_admin" : 0, "has_debug": 1, "reset_password" : 1 }
clear-db	Clear DB	Audit	String	clear-db  <134> Nov 24 16:32:03 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 cleardb 5 username=admin desc=Clear event database  json={ "status" : 0 }
restart-services	Restart Services	Audit	String	restart-services  <134> Nov 24 14:37:07 tap54.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 restartservices 5 username=admin desc=Restart services  json={ "status" : 0 }
add-report	Add Report	Audit	String	add-report  <134> Nov 24 14:37:32 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 addreport 5 username=admin desc=Add report (id '300BF9F1-973B-4523-8BEB-B82B70B78925')  json={ "report_id" : "300BF9F1-973B-4523-8BEB-B82B70B78925" }
delete-report	Delete Report	Audit	String	delete-report  <134> Nov 24 14:37:41 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 deletereport 5 username=admin desc=Delete report (id 'CF411F54-EB45-0C41-654A-AFA1B9FF9DEB')  json={ "report_id" : "CF411F54-EB45-0C41-654A-AFA1B9FF9DEB" }



Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
add-notification	Add Notification	Audit	String	<p>add-notification</p> <p>&lt;134&gt;Nov 24 14:35:04 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 addnotification  5 username =admin desc=Add notification (id 'AD5D3D6C-6A51-4BB5-958A-A1B392D3DFDA')</p> <p>json={ "report_id" : "AD5D3D6C-6A51-4BB5-958AA1B392D3DFDA" }</p>
delete-notification	Delete Notification	Audit	String	<p>delete-notification</p> <p>&lt;134&gt;Nov 24 14:38:13 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 deletenotification  5 username =admin desc=Delete notification (id '26EC53CA-B1A7-4DBAA111- 013CD2548FFD')</p> <p>json={ "report_id" : "26EC53CA-B1A7-4DBAA111-013CD2548FFD" }</p>
add-siem	Add SIEM	Audit	String	<p>add-siem</p> <p>&lt;134&gt;Nov 24 14:29:08 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 addsiem  5 username=admin desc=Add SIEM upload to 'splunktest. eng.JATP.net' (id '768687F7-4A81-42AF- 897A-6814A48D4155')</p> <p>json={ "report_id" : "768687F7-4A81-42AF-897A-6814A48D4155", "host_name": "splunktest. eng.JATP.net" }</p>
delete-siem	Delete SIEM	Audit	String	<p>delete-siem</p> <p>&lt;134&gt;Nov 24 14:38:57 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 deletesiem  5 username=admin desc=Delete SIEM upload to '10.9.8.7' (id '8165C17F-F375-4226-8E7A-BC8E690E3370')</p> <p>json={ "report_id" : "8165C17F-F375-4226-8E7A-BC8E690E3370", "host_name": "10.9.8.7" }</p>

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
add-email-collector	Add Email Collector	Audit	String	add-email-collector  <134>Nov 24 14:39:35 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 add-emailcollector 5 username=admin desc=Add email collector from '10.2.10.3' (id '5FB8FFDC-7024- 467A-8AC8-6CD68CA8781D')  json={ "report_id" : "5FB8FFDC-7024-467A-8AC8- 6CD68CA8781D", "host_name": "10.2.10.3"}
delete-email-collector	Delete Email Collector	Audit	String	delete-email-collector  <134>Nov 24 14:39:09 tap0.eng.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 delete-emailcollector 5 username=admin desc=Delete email collector from '10.2.10.7' (id '6C36F94A-3CF2- 45D8-83B9-CDF50BE0490B')  json={ "report_id" : "6C36F94A-3CF2-45D8-83B9- CDF50BE0490B", "host_name": "10.2.10.7"}
dst=	destinationIPAddress  dst represents the IP address of the destination when any communication to an external host is observed within the detection engine.	Events	IPv4 and IPv6 Addresses	dst=128.12.38.6  <b>NOTE:</b> Note: This could also be the destination IP address from which the user downloaded malware; this extension is not specific to infection only.
lastActivityTime=	Time stamp of the last activity associated with this event.	Events	string 1023 characters	lastActivityTime=2016- 12-26 18:06:52.333023+00
fileHash=	fileHash represents the checksum of the malware object from a Juniper ATP Appliance detection engine	Events	255 characters	filehash=3174990d783f4a1bd5e99db60176b920
fileName=	fileName represents the name of the object file analyzed by Juniper ATP Appliance detection engine	Events	255 characters	fileName=Trojan.Generic

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
fileType=	fileType represents the analyzed object type.	Events	255 characters	fileType=pdf
startTime=	startTime represents the date and time of the initial malware event in the Juniper ATP Appliance detection system.	Event	string 1023 characters	startTime=2016-08-11 18:22:19
malwareSeverity=	Severity risk in the range 0-10	Event	integer	malwareSeverity=0.75
malwareCategory=	Juniper ATP Appliance malware category determination	Event	string 1023 characters	malwareCategory=
cncServers=	IP address of the CnC server associated with this event	Event	IPv4 and IPv6 Addresses	cncServers=31.170.165.131
submissionTime=	Date and time of user File Submit option from the CM Web UI	Event	data	submissionTime=2016- 12-26 17:54:46.04875+00
src=	The source address associated with this malware event.	Event	IPv4 and IPv6 Addresses	src=64.202.116.124
dst=	The source address associated with this malware event.	Event	IPv4 and IPv6 Addresses	dst=10.1.1.1
reqReferer=	The URL of the HTTP address that triggered or with which the malware exploit is associated	Event	URL	reqReferer= <a href="http://www.christianforums.com/">http://www.christianforums.com/</a>
url=	The URL associated with an exploit malware event.	Event	URL	url= <a href="http://64.202.116.124/5butqfk/">http:// 64.202.116.124/5butqfk/</a> ?2

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
ExternalId=	The Juniper ATP Appliance incident number.  Example: externalId=1003	External ID	The Juniper ATP Appliance incident number.	Example:  externalId=1003
EventId=	The Juniper ATP Appliance Event ID number.  Example: eventId=13405	Event ID	The Juniper ATP Appliance Event ID number.	Example: eventId=13405
username=	The admin or user's username  Username is included in System Audit Syslogs.	Event	string	Example:  username="s_roberts"
port=	Port number associated with the event	Event	integer	port=22
protocol=	Protocol associated with the event	Event	integer	protocol=http
appliance-connecthealth	Connection health between Web Collectors and Secondary Cores.	Health	String	<134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 appliance-connecthealth  5 username=adm in desc=description  json={ "user_id": "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }
traffic-health	Traffic health	Health	String	traffic-health  <134> Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0. 15 2 traffichealth  5 desc=description  json={ "user_id": "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }

Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
link-health	Link health	Health	String	<p>link-health</p> <p>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 linkhealth 5 desc=description</p> <p>json={ "user_id": "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }</p>
services-health	Services health	Health	String	<p>services-health</p> <p>&lt;134&gt; Nov 23 18:50:00 tap0.test.JATP.net JATP: CEF:0 JATP Cortex 3.6.0.15 2 serviceshealth 5 desc=description</p> <p>json={ "user_id": "8d7c450e-df6a-0ab6-193d-143bfc6f7cac", "user_name": "test.JATP", "is_admin": 0, "has_debug": 1, "reset_password": 1 }</p>
src_hostname	Hostname of the threat source. Information is obtained from Active Directory (applicable to SMB Lateral detection where host details of threat source are obtained from Active Directory)	Event	String	<p>Dec 2 17:17:25 IP Dec 02 17:08:08 hostname CEF:0 JATP Cortex 3.6.0.1444 cnc TROJAN_DUSV EXT. 10 externalId=1489 eventId=14046 lastActivityTime=2016-05-03 00:08:08.349+00 src=31.170.165.131 dst=172.20.1.201 src_hostname= dst_hostname=emailuser-host src_username= dst_username=emailuser malwareSeverity=0.75 malwareCategory=Trojan_Generic cncServers=31.170.165.131</p>
dst_hostname	Endpoint hostname (threat target); information is obtained from Active Directory	Event	String	<p>Dec 6 16:52:22 IP Dec 06 16:51:38 hostname CEF:0 JATP Cortex 3.6.0.1444 email Phishing 8 externalId=1504 eventId=14067 lastActivityTime=2016-12-06 23:51:38+00 src= dst= src_hostname= dst_hostname= src_username= dst_username= src_email_id=src@abc.com dst_email_id={test@abc.com} startTime=2016-12-06 23:51:38+00 url=<a href="http://greatfilesarey.asia/QA/">http://greatfilesarey.asia/QA/</a> files_to_pcaps/74280968a4917da52b5555351eeda969.bin fileHash=bce00351cfc559afec5beb90ea387b03788e4af5 fileType=PE32 executable (GUI) Intel 80386, for MS Windows</p>

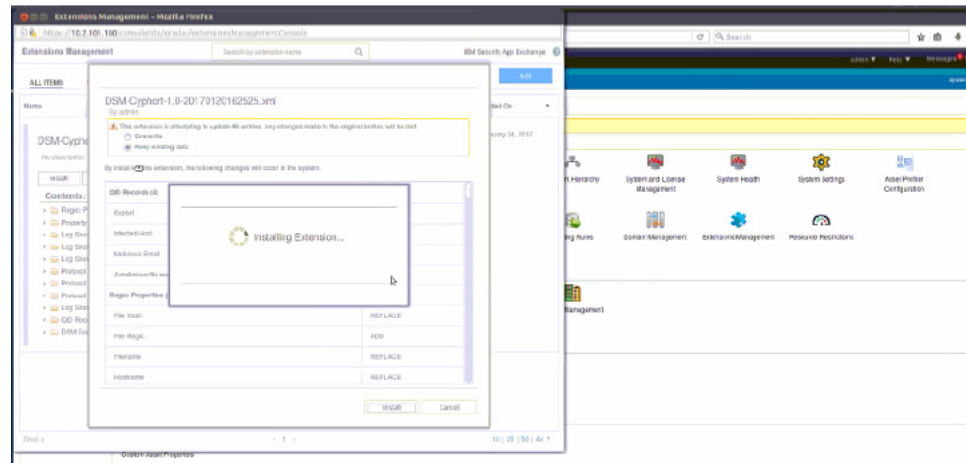
Table 7: Extension field keys in CEF and/or Syslog messages (continued)

Extension Field Key	Full Name & Description	Event Type	Data Type & Length	CEF or Syslog Key Value (Example)
src_username	Username of the person logged in into the threat source host. Information is obtained from Active Directory (applicable to Lateral spread because only then we will get the host details of threat source from Active Directory)	Event	String	Dec 3 16:42:24 IP Dec 03 16:42:54 hostname CEF:0 JATP Cortex 3.6.0.1444 email Phishing 8 e xternalId=1499 eventId=14058 lastActivityTime=2016- 05-03 23:42:54+00 src= dst= src_hostname= dst_hostname= src_username= dst_username= <b>src_email_id=src@abc.com</b> dst_email_id={test1@ab c.com,test2@abc.com,test3@abc.com} url=http:// /greatfilesarey.asia/QA/ fileType=PE32 executable (GUI) Intel 80386, for MS Windows
dst_username:	Username of the person logged in into the threat target host. Information is obtained from Active Directory.			Dec 3 16:42:24 IP Dec 03 16:42:54 hostname CEF:0 JATP Cortex 3.6.0.1444 email Phishing 8 e xternalId=1499 eventId=14058 lastActivityTime=2016- 05-03 23:42:54+00 src= dst= src_hostname= dst_hostname= src_username= dst_username= <b>src_email_id=src@abc.com</b> dst_email_id={test1@ab c.com,test2@abc.com,test3@abc.com} url=http:// /greatfilesarey.asia/QA/ fileType=PE32 executable (GUI) Intel 80386, for MS Windows
src_email_id	Email ID of the sender of the email	Event	String	Dec 3 16:42:24 IP Dec 03 16:42:54 hostname CEF:0 JATP Cortex 3.6.0.1444 email Phishing 8 e xternalId=1499 eventId=14058 lastActivityTime=2016- 05-03 23:42:54+00 <b>src_email_id=src@abc.com</b> dst_email_id={test1@ab c.com,test2@abc.com,test3@abc.com} startTime=2016-05-03 23:42:54+00 url= <a href="http://greatfilesarey.asia/QA/files_to_pcaps/74280968a4917da52b555351eeda969.bin">http:// greatfilesarey.asia/QA/ files_to_pcaps/ 74280968a4917da52b5 55351eeda969.bin</a> fileType=PE32 executable (GUI) Intel 80386, for MS Windows
dst_email_id	Email IDs of recipients	Event	String	Dec 3 16:42:24 IP Dec 03 16:42:54 hostname CEF:0 JATP Cortex 3.6.0.1444 email Phishing 8 e xternalId=1499 eventId=14058 lastActivityTime=2016- 05-03 23:42:54+00 <b>src_email_id=src@abc.com</b> dst_email_id={test1@ab c.com,test2@abc.com,test3@abc.com} startTime=2016-05-03 23:42:54+00 url= <a href="http://greatfilesarey.asia/QA/files_to_pcaps/74280968a4917da52b555351eeda969.bin">http:// greatfilesarey.asia/QA/ files_to_pcaps/ 74280968a4917da52b5 55351eeda969.bin</a> fileType=PE32 executable (GUI) Intel 80386, for MS Windows



## To Install the QRadar DSM Juniper ATP Appliance Extension Plugin

1. Enable the LEEF options per data type from the Juniper ATP Appliance Central Manager Web UI Config>Notifications>SIEM Settings pages.
2. On the QRadar device, use the Extension Management tab install the Juniper ATP Appliance plugin file.



3. Download the DSM-Juniper ATP Appliance extension plugin file to the Juniper ATP Appliance.

**See Also** • [SIEM Syslog, LEEF and CEF Logging on page 15](#)