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HPE Security ArcSight Connectors

SmartConnector for TippingPoint SMS Syslog

Configuration Guide

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Revision History

Date	Description
11/30/2016	Updated installation procedure for setting preferred IP address mode.
05/15/2015	Added new Syslog File parameters.
03/31/2015	Added note about payload retrieval.
02/16/2015	Added parameter for Syslog Daemon connector configuration. Added note about CEF connector support for SMS v4.0.
02/14/2014	Added support for SMS and IPS audit events for devices. Updated Device Product mapping.
11/15/2013	Added support for TippingPoint syslog format 2.5 with SMS version 3.6.
09/30/2013	For syslog format 2.5, added mapping for Device Host Name and updated mapping for Device Custom String 5.
11/15/2012	Added support for TippingPoint syslog format 2.5 with SMS version 3.5.

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SmartConnector for TippingPoint SMS Syslog

This guide provides information for installing the SmartConnector for TippingPoint SMS Syslog and configuring the device for syslog event collection. TippingPoint SMS versions 2.1, 2.5, 3.0, 3.1, 3.2, and 3.3 for SMS syslog format 2.0 are supported. Support for SMS syslog format 2.5 with SMS 3.2, 3.3, 3.5, and 3.6, as well as CEF syslog event collection from SMS 3.3 devices, is also provided. Support for SMS and IPS device audit events is also included.



The CEF certified event format used in SMS 4.0 complies with the requirements of the HP ArcSight Common Event Format. HP's "SmartConnector for ArcSight Common Event Format Syslog" processes all events correctly for SMS 4.0 and makes all events available for use within HP's ArcSight product.

Product Overview

The TippingPoint Security Management System (SMS) is a hardened appliance that provides global vision and control for multiple TippingPoint Intrusion Prevention Systems (IPS). The SMS is responsible for discovering, monitoring, configuring, diagnosing and reporting for multiple TippingPoint IPS systems.

Configuration

Configure TippingPoint Syslog

The TippingPoint product has two types of devices, sensors and SMS devices, which act as the management console and central logging point. The SMS provides a separate syslog output format option that works with third-party network security devices and host applications. ArcSight currently supports only events sent to our connector from the SMS console, not the events sent directly to the connector from the sensor devices, as the two devices log in slightly different formats.

When configuring the SMS console for syslog event collection, be sure to:

- Choose to receive syslog from **manager** instead of **device**.
- Set the Syslog format to **SMS v2.0 syslog Format** or **SMS v2.5 syslog Format**. Syslog format 2.5 is supported only with TippingPoint versions 3.2, 3.3, 3.5, and 3.6.
- Set up the syslog messages to be tab delimited (not pipe, semi colon, or comma).
- Set the 'Include timestamp in header' radio button to none.
- Uncheck the 'Include SMS hostname in header' box.

For complete device configuration information, see your TippingPoint documentation.



See the TippingPoint integration guide to setup and retrieve payload successfully. The Common Event Format Configuration Guide for HP TippingPoint Next Generation Firewall (HP TippingPoint CEF) is available on Protect 724 at: https://protect724.hp.com/groups/cef-connectors/tags#/?tags=hp_cef. Scroll to and click the HP logo under the heading "DLP & Data Security".

Configure the Syslog SmartConnectors

The three ArcSight Syslog SmartConnectors are:

Syslog Daemon
Syslog Pipe
Syslog File

The Syslog Daemon SmartConnector

The Syslog Daemon SmartConnector is a syslogd-compatible daemon designed to work in operating systems that have no syslog daemon in their default configuration, such as Microsoft Windows. The SmartConnector for Syslog Daemon implements a UDP receiver on port 514 (configurable) by default that can be used to receive syslog events. Use of the TCP protocol or a different port can be configured manually.

If you are using the SmartConnector for Syslog Daemon, simply start the connector, either as a service or as a process, to start receiving events; no further configuration is needed.



Messages longer than 1024 bytes may be split into multiple messages on syslog daemon; no such restriction exists on syslog file or pipe.

The Syslog Pipe and File SmartConnectors

When a syslog daemon is already in place and configured to receive syslog messages, an extra line in the syslog configuration file (`rsyslog.conf`) can be added to write the events to either a **file** or a system **pipe** and the ArcSight SmartConnector can be configured to read the events from it. **In this scenario, the ArcSight SmartConnector runs on the same machine as the syslog daemon.**

The **Syslog Pipe** SmartConnector is designed to work with an existing syslog daemon. This SmartConnector is especially useful when storage is a factor. In this case, syslogd is configured to write to a named pipe, and the Syslog Pipe SmartConnector reads from it to receive events.

The **Syslog File** SmartConnector is similar to the Pipe SmartConnector; however, this SmartConnector monitors events written to a syslog file (such as `messages.log`) rather than to a system pipe.

Configure the Syslog Pipe or File SmartConnector

This section provides information about how to set up your existing syslog infrastructure to send events to the ArcSight Syslog Pipe or File SmartConnector.

The standard UNIX implementation of a syslog daemon reads the configuration parameters from the `/etc/rsyslog.conf` file, which contains specific details about which events to write to files, write to pipes, or send to another host. First, create a pipe or a file; then modify the `/etc/rsyslog.conf` file to send events to it.

For syslog pipe:

- 1 Create a pipe by executing the following command:

```
mkfifo /var/tmp/syspipe
```

- 2 Add the following line to your `/etc/rsyslog.conf` file:

```
*.debug /var/tmp/syspipe
```

or

```
*.debug | /var/tmp/syspipe
```

depending on your operating system.

- 3 After you have modified the file, restart the syslog daemon either by executing the scripts **/etc/init.d/syslogd stop** and **/etc/init.d/syslogd start**, or by sending a `configuration restart` signal.

On RedHat Linux, you would execute:

```
service syslog restart
```

On Solaris, you would execute:

```
kill -HUP `cat /var/run/syslog.pid`
```

This command forces the syslog daemon to reload the configuration and start writing to the pipe you just created.

For syslog file:

Create a file or use the default for the file into which log messages are to be written.

After editing the `/etc/rsyslog.conf` file, be sure to restart the syslog daemon as described above.

When you follow the SmartConnector Installation Wizard, you will be prompted for the absolute path to the syslog file or pipe you created.

Install the SmartConnector

The following sections provide instructions for installing and configuring your selected SmartConnector.

Syslog Installation

Install this SmartConnector (on the syslog server or servers identified in the *Configuration* section) using the SmartConnector Installation Wizard appropriate for your operating system. The wizard will guide you through the installation process. When prompted, select one of the following **Syslog** connectors (see *Configure the Syslog SmartConnectors* in this guide for more information):

- Syslog Daemon
- Syslog Pipe
- Syslog File

Because all syslog SmartConnectors are sub-connectors of the main syslog SmartConnector, the name of the specific syslog SmartConnector you are installing is not required during installation.

The syslog daemon connector by default listens on port 514 (configurable) for UDP syslog events; you can configure the port number or use of the TCP protocol manually. The syslog pipe and syslog file connectors read events from a system pipe or file, respectively. Select the one that best fits your syslog infrastructure setup.

Prepare to Install Connector

Before you install any SmartConnectors, make sure that the ArcSight products with which the connectors will communicate have already been installed correctly (such as ArcSight ESM or ArcSight Logger).

For complete product information, read the *Administrator's Guide* as well as the *Installation and Configuration* guide for your ArcSight product before installing a new SmartConnector. If you are adding a connector to the ArcSight Management Center, see the *ArcSight Management Center Administrator's Guide* for instructions, and start the installation procedure at "Set Global Parameters (optional)" or "Select Connector and Add Parameter Information."

Before installing the SmartConnector, be sure the following are available:

- Local access to the machine where the SmartConnector is to be installed
- Administrator passwords

Install Core Software

Unless specified otherwise at the beginning of this guide, this SmartConnector can be installed on all ArcSight supported platforms; for the complete list, see the *SmartConnector Product and Platform Support* document, available from the HPE SSO and Protect 724 sites.

- 1 Download the SmartConnector executable for your operating system from the HPE SSO site.
- 2 Start the SmartConnector installation and configuration wizard by running the executable.

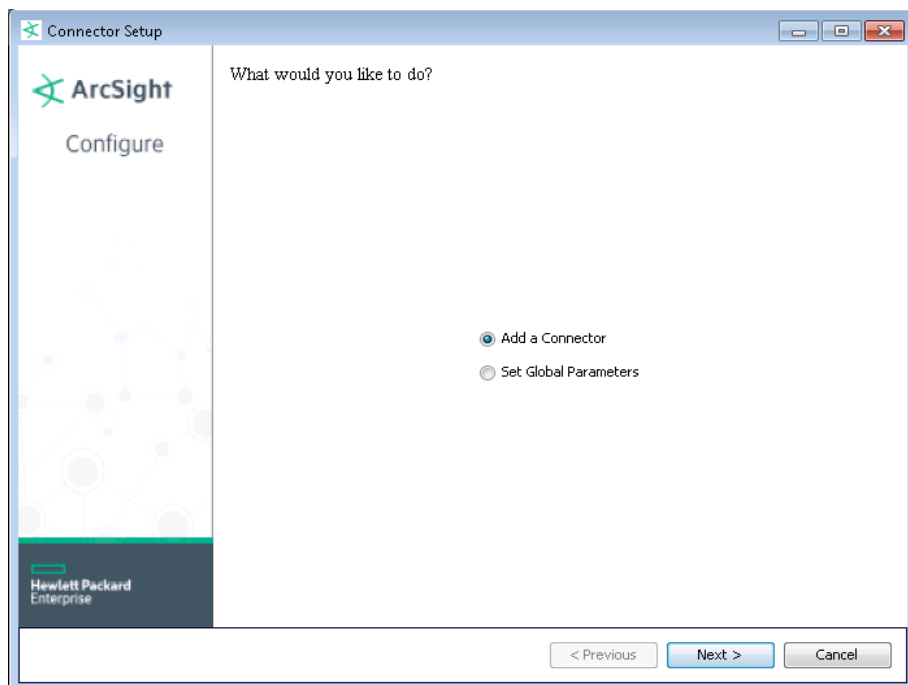


When installing a syslog daemon SmartConnector in a UNIX environment, run the executable as 'root' user.

Follow the wizard through the following folder selection tasks and installation of the core connector software:

Introduction
Choose Install Folder
Choose Shortcut Folder
Pre-Installation Summary
Installing...

- 3 When the installation of SmartConnector core component software is finished, the following window is displayed:



Set Global Parameters (optional)

If you choose to perform any of the operations shown in the following table, do so before adding your connector. You can set the following parameters:

Global Parameter	Setting
Set FIPS mode	Set to 'Enable' to enable FIPS compliant mode. To enable FIPS Suite B Mode, see the SmartConnector User Guide under "Modifying Connector Parameters" for instructions. Initially, this value is set to 'Disable'.
Set Remote Management	Set to 'Enable' to enable remote management from ArcSight Management Center. When queried by the remote management device, the values you specify here for enabling remote management and the port number will be used. Initially, this value is set to 'Disable'.
Remote management listener port	The remote management device will listen to the port specified in this field. The default port number is 9001.
Preferred IP Version	If both IPv4 and IPv6 IP addresses are available for the local host (the machine on which the connector is installed), you can choose which version is preferred. Otherwise, you will see only one selection. When both values are present, the initial setting is IPv4.

After making your selections, click **Next**. A summary screen is displayed. Review the summary of your selections and click **Next**. Click **Continue** to return to the "Add a Connector" window. Continue the installation procedure with "Select Connector and Add Parameter Information."

Select Connector and Add Parameter Information

- 1 Select **Add a Connector** and click **Next**. If applicable, you can enable FIPS mode and enable remote management later in the wizard after SmartConnector configuration.
- 2 Select **Syslog Daemon, File, or Pipe** and click **Next**.

- 3 Enter the required SmartConnector parameters to configure the SmartConnector, then click **Next**.

Syslog Daemon Parameters	<i>Network port</i>	The SmartConnector for Syslog Daemon listens for syslog events from this port.
	<i>IP Address</i>	The SmartConnector for Syslog Daemon listens for syslog events only from this IP address (accept the default (ALL) to bind to all available IP addresses).
	<i>Protocol</i>	The SmartConnector for Syslog Daemon uses the selected protocol (UDP or Raw TCP) to receive incoming messages.
	<i>Forwarder</i>	Change this parameter to 'true' only if the events being processed are coming from another SmartConnector sending to a CEF Syslog destination, and that destination also has CEF forwarder mode enabled. That allows attributes of the original connector to be retained in the original agent fields.
Syslog Pipe Parameter	<i>Pipe Absolute Path Name</i>	Absolute path to the pipe, or accept the default: /var/tmp/syspipe
Syslog File Parameters	<i>File Absolute Path Name</i>	Enter the full path name for the file from which this connector will read events or accept the default: \var\adm\messages (Solaris) or \var\log\messages (Linux). A wildcard pattern can be used in the file name; however, in realtime mode, rotation can occur only if the file is over-written or removed from the folder. Realtime processing mode assumes following external rotation. For date format log rotation, the device writes to 'filename.timestamp.log' on a daily basis. At a specified time, the device creates a new daily log and begins to write to it. The connector detects the new log and terminates the reader thread to the previous log after processing is complete. The connector then creates a new reader thread to the new 'filename.timestamp.log' and begins processing that file. To enable this log rotation, use a date format in the file name as shown in the following example: <code>filename 'yyyy-MM-dd' .log;</code> For index log rotation, the device writes to indexed files - 'filename.log.001', 'filename.log.002', 'filename.log.003', and so on. At startup, the connector processes the log with highest index. When the device creates a log with a greater index, the connector terminates the reader thread to the previous log after processing completes, creates a thread to the new log, and begins processing that log. To enable this log rotation, use an index format, as shown in the following example: <code>filename '%d,1,99,true' .log;</code> Specifying 'true' indicates that it is allowed for the index to be skipped; for example, if 5 appears before 4, processing proceeds with 5 and will not read 4, even if 4 appears later. Use of 'true' is optional.
	<i>Reading Events Real Time or Batch</i>	Specify whether file is to be read in batch or realtime mode. For batch mode, all files are read from the beginning. The 'Action Upon Reaching EOF' and 'File Extension if Rename Action' parameters apply for batch mode only.
	<i>Action Upon Reaching EOF</i>	For batch mode, specify 'None', 'Rename', or 'Delete' as the action to be performed to the file when the connector has finished reading and reaches end of file (EOF). For realtime mode, leave the default value of 'None' for this parameter.
	<i>File Extension If Rename Action</i>	For batch mode, specify the extension to be added to the file name if the action upon EOF is 'Rename' or accept the default value of '.processed'.

Select a Destination

- 1 The next window asks for the destination type; select a destination and click **Next**. For information about the destinations listed, see the *ArcSight SmartConnector User Guide*.

- 2 Enter values for the destination. For the ArcSight Manager destination, the values you enter for **User** and **Password** should be the same ArcSight user name and password you created during the ArcSight Manager installation. Click **Next**.
- 3 Enter a name for the SmartConnector and provide other information identifying the connector's use in your environment. Click **Next**. The connector starts the registration process.
- 4 If you have selected ArcSight Manager as the destination, the certificate import window for the ArcSight Manager is displayed. Select **Import the certificate to the connector from destination** and click **Next**. (If you select **Do not import the certificate to connector from destination**, the connector installation will end.) The certificate is imported and the **Add connector Summary** window is displayed.

Complete Installation and Configuration

- 1 Review the **Add Connector Summary** and click **Next**. If the summary is incorrect, click **Previous** to make changes.
- 2 The wizard now prompts you to choose whether you want to run the SmartConnector as a stand-alone process or as a service. If you choose to run the connector as a stand-alone process, select **Leave as a standalone application**, click **Next**, and continue with step 5.
- 3 If you chose to run the connector as a service, with **Install as a service** selected, click **Next**. The wizard prompts you to define service parameters. Enter values for **Service Internal Name** and **Service Display Name** and select **Yes** or **No** for **Start the service automatically**. The **Install Service Summary** window is displayed when you click **Next**.
- 4 Click **Next** on the summary window.
- 5 To complete the installation, choose **Exit** and Click **Next**.

For instructions about upgrading the connector or modifying parameters, see the *SmartConnector User Guide*.

Run the SmartConnector

SmartConnectors can be installed and run in stand-alone mode, on Windows platforms as a Windows service, or on UNIX platforms as a UNIX daemon, depending upon the platform supported. On Windows platforms, SmartConnectors also can be run using shortcuts and optional Start menu entries.

If the connector is installed in stand-alone mode, it must be started manually and is not automatically active when a host is restarted. If installed as a service or daemon, the connector runs automatically when the host is restarted. For information about connectors running as services or daemons, see the *ArcSight SmartConnector User Guide*.

To run all SmartConnectors installed in stand-alone mode on a particular host, open a command window, go to `$ARCSIGHT_HOME\current\bin` and run: `arcsight connectors`

To view the SmartConnector log, read the file `$ARCSIGHT_HOME\current\logs\agent.log`; to stop all SmartConnectors, enter `Ctrl+C` in the command window.

Device Event Mapping to ArcSight Fields

The following section lists the mappings of ArcSight data fields to the device's specific event definitions. See the *ArcSight Console User's Guide* for more information about the ArcSight data fields.

TippingPoint Syslog Format 2.5 Mappings

ArcSight ESM Field	Device-Specific Field
Agent (Connector) Severity	Very High = Critical; High = Major; Medium = Low or Minor; Low = Normal
Application Protocol	protocol
Base Event Count	evtcount
Destination Address	dstip
Destination Port	dstport
Device Action	actiontype (7=Permit, 8=Block, 9=P2P, 12=Quarantine)
Device Custom IPv6 Address 2	srcip
Device Custom IPv6 Address 3	dstip
Device Custom Number 1	vlanid
Device Custom Number 2	alarmid
Device Custom String 2	policyUUID
Device Custom String 3	signatureUUID
Device Custom String 4	Both (srczonename, dstzonename)
Device Custom String 5	_SYSLOG_SENDER (Device Name)
Device Custom String 6	querieddomain
Device Event Class ID	appid
Device Host Name	devicename (SMS Host Name)
Device Inbound Interface	phyport
Device Product	'SMS'
Device Receipt Time	apptimestamplong
Device Severity	appseverity (0=Normal, 1=Low, 2=Minor, 3=Major, 4=Critical, 5=Critical)
Device Vendor	'TippingPoint'
External ID	seqnumber
Name	message
Source Address	srcip
Source Port	srcport
Transport Protocol	protocol

TippingPoint Syslog Format 2.0 Mappings

ArcSight ESM Field	Device-Specific Field
Application Protocol	protocol
Base Event Count	Evtcount
Destination Address	dstIP
Destination Port	dstport
Device Action	Action Type (7=Permit, 8=Block, 9=P2P)
Device Custom Number 1	alarmID

ArcSight ESM Field	Device-Specific Field
Device Custom String 2	policyUUID
Device Custom String 3	signatureUUID
Device Custom String 4	devicesegment
Device Custom String 5	devicename
Device Event Class ID	applID
Device Inbound Interface	deviceslot
Device Product	'SMS'
Device Receipt Time	apptimestamplong
Device Severity	App Severity (0=Normal, 1=Low, 2=Minor, 3=Major, 4=Critical, 5=Critical)
Device Vendor	'TippingPoint'
Name	Message
Source Address	srcIP
Source Port	srcport
Transport Protocol	protocol

TippingPoint Syslog Device Audit Mappings

ArcSight ESM Field	Device-Specific Field
Agent (Connector) Severity	Medium = FAIL; Low = PASS
Destination Address	destination IP
Destination Port	destination port number
Destination User Name	deviceUser
Device Action	Device Action
Device Custom Date 1	Rotation start date
Device Custom Date 2	Rotation end date
Device Custom IPv6 Address 2	Source IPv6 Address
Device Custom String 5	Device Name
Device Event Category	category
Device Event Class ID	Short description of the message field
Device Inbound Interface	interface
Device Product	'SMS'
Device Severity	result
Device Vendor	'TippingPoint'
Event Outcome	Status
Message	message
Name	Short description of the message field
Source Address	sourceIP

TippingPoint Syslog SMS Audit Mappings

ArcSight ESM Field	Device-Specific Field
Agent (Connector) Severity	Medium = fail; Low = success
Destination Address	destination IP

ArcSight ESM Field	Device-Specific Field
Device Action	action
Device Custom IPv6 Address 2	Source IPv6 Address
Device Custom Number 1	Session ID
Device Custom String 1	ActionSet rule
Device Custom String 3	Signature version
Device Custom String 5	Device Name
Device Event Class ID	Short description of the description field
Device Inbound Interface	interface
Device Product	'SMS'
Device Receipt Time	eventtimestamp
Device Severity	status
Device Vendor	'TippingPoint'
Event Outcome	status
Message	description
Name	Short description of the description field
Source Address	clientAddress
Source Host Name	clientAddress
Source Port	clientPort
Source User Name	username
Transport Protocol	protocol
