

SmartConnector™ Configuration Guide for

ArcSight™ Forwarding Connector

June, 2011



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The network information used in the examples in this document (including IP addresses and hostnames) is for illustration purposes only.

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Revision History

Date	Product Version
06/2011	Added support for HP OMi.
05/2011	Restructured guide to include multiple chapters, added instructions for using multiple destinations and added a chapter on HP OM configuration.
12/2010	Added supported versions for McAfee ePO (4.0 and 4.5), removed build number from the guide, and fixed reported document bugs.
05/26/2010	Updated information on upgrades and forwarding base events.
01/18/2010	Merged FIPS and non-FIPS information.
12/29/2009	Updated screen shots to reflect the current UI.
11/03/2009	Updated to include an enhanced McAfee ePO feature. The new "EPO Version" parameter allows users of newer versions of ePO to drill down and perform actions to the source or target from the ePO console.
3/26/2009	Updates published concurrently with ESM v.4.5 SP1 Release.
02/23/2009	Added fixes and EPO destination. Forwarding Connector build 5242.
08/28/2008	Added updates for "Enhanced" Forwarding Connector. Added new destination options.
09/12/2007	Added information about using the Forwarding Connector to send events to ArcSight Logger.
03/28/2007	Updated connector name and installer name.
01/31/2007	General content update.
09/21/2004	Added Manager version note.
01/20/2003	First release of connector documentation.

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ArcSight Customer Support

Phone	1-866-535-3285 (North America) +44 (0)870 141 7487 (EMEA)
E-mail	support@arcsight.com
Support Web Site	http://www.arcsight.com/supportportal/
Protect 724 Community	https://protect724.arcsight.com

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Chapter 1

Overview and Installation

This chapter provides information for installing an ArcSight Forwarding Connector for event collection from an ArcSight ESM Manager installation. The following topics are discussed.

[“Product Overview” on page 7](#)
[“The ArcSight ESM Source Manager” on page 7](#)
[“The ArcSight ESM Source Manager” on page 7](#)
[“Standard Installation Procedures” on page 9](#)
[“Uninstalling a Connector” on page 15](#)
[“Upgrading a Connector” on page 16](#)
[“Rolling Back a Connector” on page 16](#)

The ArcSight Forwarding Connector is supported on Windows, Linux, Solaris, and AIX platforms.

ArcSight recommends using the Forwarding Connector installer included with the corresponding ESM release. The Forwarding Connector is released as part of the ESM release; however, its build version might not match that of other ESM components within the release.

Product Overview

The ArcSight Forwarding Connector lets you receive events from a source ESM Manager installation and send them to a secondary destination ESM Manager, a non-ESM location or to an ArcSight Logger.

The ArcSight ESM Source Manager

The ESM Source Manager is the installation from which events originate on a network using the ArcSight Forwarding Connector. The Forwarding Connector sends on (or “forwards”) events to a destination ESM Manager, a non-ESM location or a Logger appliance.



The ESM Source Manager must be of the same version as the ESM Destination Manager.

With data originating from an ArcSight ESM Source Manager, the ArcSight Forwarding Connector provides various destination options for forwarding events, including:

- An ArcSight ESM destination Manager
- ArcSight Logger
- NSP Device Poll Listener
- CEF Syslog
- A CSV file
- McAfee ePolicy Orchestrator v4.0 or v4.5
- HP Operations Manager
- HP Operations Manager i

Sending Events to an ArcSight ESM Destination Manager

The ArcSight Forwarding Connector logs into the source ESM Manager and then forwards events to a destination ESM Manager. For detailed configuration instructions, see [“Forwarding Events to an ArcSight ESM Manager” on page 19](#).



The ESM Destination Manager must be of the same version as the ESM Source Manager.

Sending Events to ArcSight Logger

ArcSight Logger is a hardware storage solution optimized for extremely high event throughput. A typical use for Logger is to collect firewall data and then forward a subset of that data to an ArcSight ESM Manager for realtime monitoring and correlation. ArcSight Logger now supports the Federal Information Processing Standard 140-2 (FIPS 140-2). See [“Using Logger in FIPS Mode” on page 49](#) for details.

SmartMessage is an ArcSight technology that provides a secure channel between ArcSight SmartConnectors and Logger. SmartMessage provides an end-to-end encrypted secure channel. One end is an ArcSight SmartConnector that receives events from the many devices supported by ArcSight SmartConnectors, and the other is a SmartMessage Receiver housed on the Logger appliance.

Before configuring the Forwarding Connector that sends events to the Receiver, you need to create a Receiver of type **SmartMessage**. After you create this Receiver, you can configure the SmartConnector to send events to Logger.

For information on configuring a Forwarding Connector to forward events to Logger, see [“Forwarding Events to ArcSight Logger” on page 23](#).

Refer to the *ArcSight Logger Administrator's Guide* for complete instructions about:

- Receivers
- Configuring a SmartConnector to Send Events to Logger
- Configuring SmartConnectors to Send Events to Both Logger and an ESM Manager
- Sending Events from ArcSight ESM to Logger
- Using Logger in FIPS mode

Sending Events to a Non-ESM Location

The ArcSight Forwarding Connector logs into the source ESM Manager and then forwards events to a non-ESM location.

When configuring the Forwarding Connector to send events to a non-ESM destination, you might encounter a problem with certificate validation during connector setup. Make sure that the demo CA is added to the client trust store to validate the ESM Manager's demo certificate.

To make sure the demo CA is added to the client trust store:

- 1 Install the connector as usual, but stop at the screen that prompts you to select a destination type.
- 2 After the screen prompting you to select the destination type is displayed, run the following command from the `$ARCSIGHT_HOME\current\bin` directory


```
arcsight connector tempca -ac
```
- 3 Return to the wizard and complete the installation.

For detailed configuration instructions on forwarding events to NSP, see [Chapter 2, Forwarding Events to NSP Device Poll Listener](#), on page 24.

For detailed configuration instructions on forwarding CEF Syslog events, see [Chapter 2, Forwarding CEF Syslog Events](#), on page 25.

For detailed configuration instructions on forwarding events to a `.csv` file, see [Chapter 2, Forwarding Events to a CSV File](#), on page 26.

For detailed configuration instructions on forwarding events to McAfee ePolicy Orchestrator (ePO), see [Chapter 2, Forwarding Events to McAfee ePolicy Orchestrator](#), on page 27.



Use of ePO requires installation of **MS SQL Server 2005 for JDBC driver**. For instructions on downloading, see ["Installing the Microsoft SQL Server 2005 Driver for JDBC"](#) on page 28.

For detailed configuration instructions on forwarding events to HP Operations Manager (HP OM), see [Chapter 3, Configuration for HP Operations Manager and HP Operations Manager i](#), on page 33.

Standard Installation Procedures

This section describes the standard installation procedures for the ArcSight Forwarding Connector.

Installing ArcSight ESM

Before you install the ArcSight Forwarding Connector, make sure that ArcSight ESM has already been installed correctly. Review the *ArcSight Installation and Configuration Guide* before attempting a new ArcSight Forwarding Connector installation.

To ensure a successful ArcSight ESM installation:

- 1 Make sure that the ArcSight ESM Manager, Database, and Console are installed correctly.

- 2 Run the ArcSight ESM Manager; the ArcSight ESM Manager command prompt window or terminal box displays a **Ready** message when the Manager has started successfully. You can also monitor the `server.std.log` file located in `ARCSIGHT_HOME\current\logs`.
- 3 Run the ArcSight Console. Although not necessary, it is helpful to have the ArcSight Console running when installing the SmartConnector to verify successful installation.

Before you install the SmartConnector, make sure you have the following available:

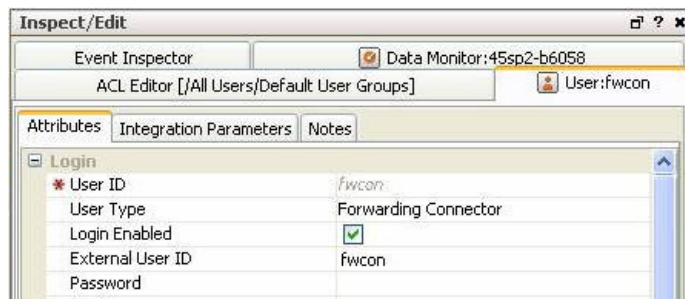
- Local access to the machine where the SmartConnector is to be installed
- Administrator passwords

Assigning Privileges on the ESM Source Manager

Before installing the ArcSight Forwarding Connector, you need to create a **Forwarding Connector** account on the source Manager. After doing this, you can assign filters for incoming events.

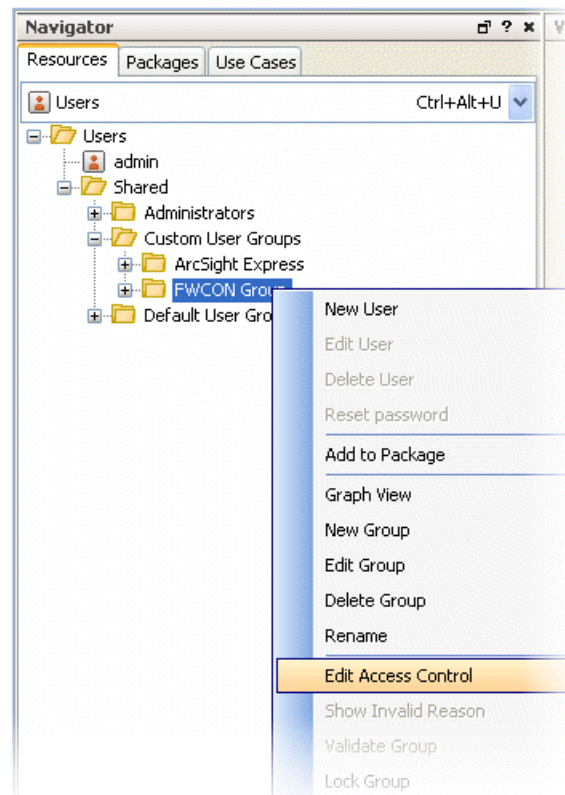
To assign privileges in the ESM Manager:

- 1 Run the ArcSight Console and log in to the ArcSight Manager.
- 2 From the Navigator **Resources** tab, choose **Users**.
- 3 Create a user group under the **Custom User Group**.
- 4 Under the group created in **step 3**, create a user account of user type **Forwarding Connector**, as shown below.

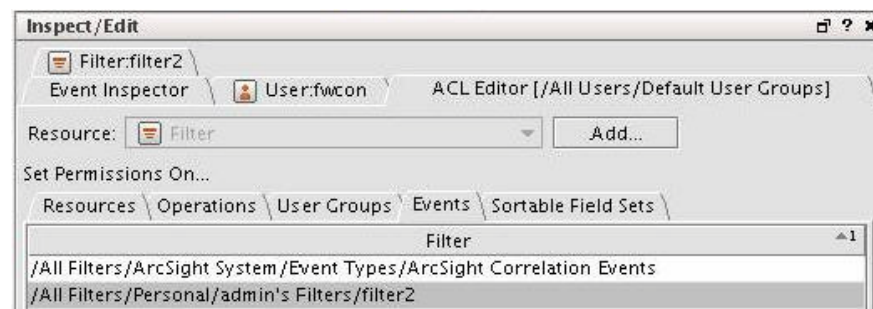


- 5 Returning to the Navigator **Resources** tab, right-click your chosen user group.

- 6 From the resulting menu, choose **Edit Access Control**.



- 7 From the **Inspect/Edit** window, click the **Events** tab under the new user type and assign the proper filters.



For detailed instructions on creating filters and users using ArcSight Console, refer to the *ArcSight ESM 5.0 User's Guide*.

Forwarding Correlation Events

The ArcSight Forwarding Connector can forward events based upon the ACL assigned to the User Group on the source ESM Manager. The connector can be configured to allow forwarding of ArcSight correlation events from the source ESM Manager to the target (or

destination) ESM Manager. The ACL can also be configured to allow for viewing of the detailed chain of the forwarded correlation event, including the original correlated event.



Caution

HP OM users commonly require only correlated events to be pulled from ESM. In such cases, HP OM users can specify the selection of correlated events. To allow for only correlated events and restrict the pulling of base events, configure ESM to **pull correlated events**, then **allow the forwarding of correlated events**, as described below. These steps should be performed in sequence, then restart the source Manager.

The following steps should be performed in sequence, then restart the source Manager.

Configuring to Pull Correlated Events

To configure the source Manager to send both correlation events and on-demand correlated events to the destination Manager, the ACL must contain two separate filters:

- Filter 1, provided with the latest version of ArcSight ESM:
`/All Filters/ArcSight System/Event Types/ArcSight Correlation Events`
- Create Filter 2 containing the following conditions:
 - ◆ Event Annotation Flags ContainsBits correlated
 - ◆ Both filters need to be applied to the Event Permissions of the User Group ACL to be able to extract correlated events from the correlation events that are forwarded to the target ESM Manager.



Note

Correlated events pulled on-demand are for viewing only. They are not persisted in the destination Manager.

Configuring to Allow Forwarding of Correlated Events

The Forwarding Connector can also be configured to automatically pull and forward correlated events irrespective of the User Group ACL. Only one forwarding connector per Manager can be configured to work in this mode. This configuration can aid in hierarchical deployment scenarios in which you need to automatically forward correlated events for further correlation and reporting on the destination Manager.

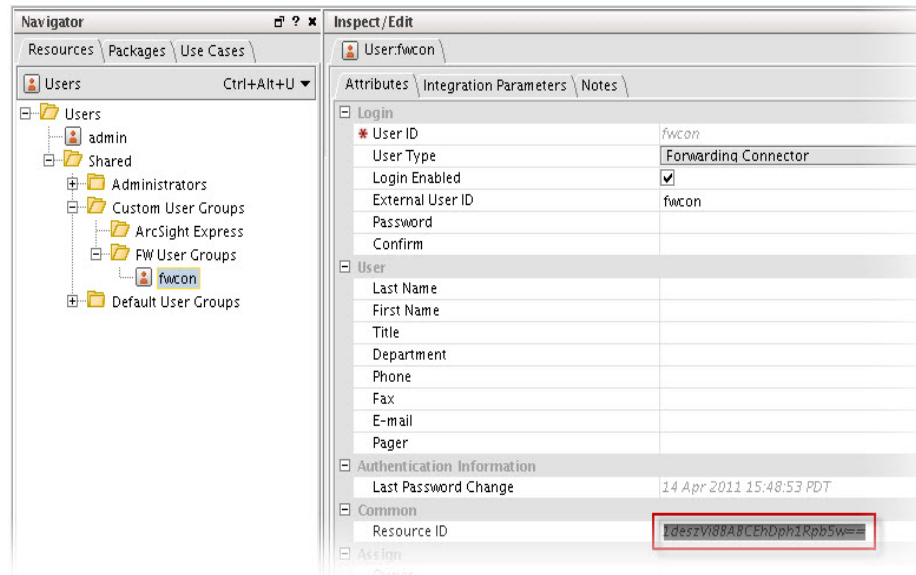
The source Manager keeps track of the events that have been previously forwarded by using the "Forwarded" annotation, disallowing duplicates.

To configure the source Manager to send both correlation events and correlated events automatically, you must specify the **container ID**. The container ID consists of two elements, the **entityid** and the **userid**. To begin the configuration, you must locate these two elements and combine them within the `server.properties` file.

- 1 To find the **entityID**, go to `$AGENT_HOME/user/agent/agent.properties` and search for `agents[0].entityid`. Copy the text string starting in `3w` to a word or note program.

`agents[0].entityid=3w+05uiYBABCCLKvzx0stdQ\==`

- 2 To find the **userid**, go to the Console of the **source Manager**.
 - a From to the **Navigator** panel, choose the **Resource** tab.
 - b Under **Resources**, choose **Users** to find your Forwarding Connector user.
 - c Locate the **Resource ID** and copy the text string from the second column, as shown below.



Within `$Arcsight_HOME/config/server.properties` on the source Manager, add the **entityid** and **userid** to the `eventstream.cfc` property, as shown below.

`eventstream.cfc=EntityID.UserID`

- 3 Restart the source Manager and, if still running, the Forwarding Connector.

Increasing the FileStore size (Enhanced version only)

Installation of the ArcSight Forwarding Connector (Enhanced) option provides fault-tolerance, enabling events to be saved in the event of a failure.

The capacity of events that can be stored during a system failure is dependent on the amount of disk space the FileStore can use on the source ESM Manager. Although the default size of 1024 MB (1 GB) is suitable for most installations, you can increase the size of your FileStore.

To increase the size of the FileStore:

- 1 Open the properties file `server.defaults.properties`, located under `$ARCSIGHT_HOME/config`.

The file displays the current default:

`filestore.disksize.max.megabytes.int=1024`

- 2 Use this formula to determine appropriate rates for minutes of storage on your system:

$$\text{MinutesOfStorage} = (((\text{\#MB} / 1024) * 21,474,833) / \text{EPS}) / 60$$

- ◆ Given the most typical event sizes, a FileStore of 1 GB can store approximately 21,474,833 events, and at a rate of 5000 events per second, the default size provides approximately 71 minutes of storage.
- ◆ When the FileStore fills up, the oldest events are purged to make room for recent ones.

Installing the Forwarding Connector

Before installing the ArcSight Forwarding Connector, you need to assign privileges on your ESM Manager. For instructions on how to do this, see [“Assigning Privileges on the ESM Source Manager” on page 10](#).

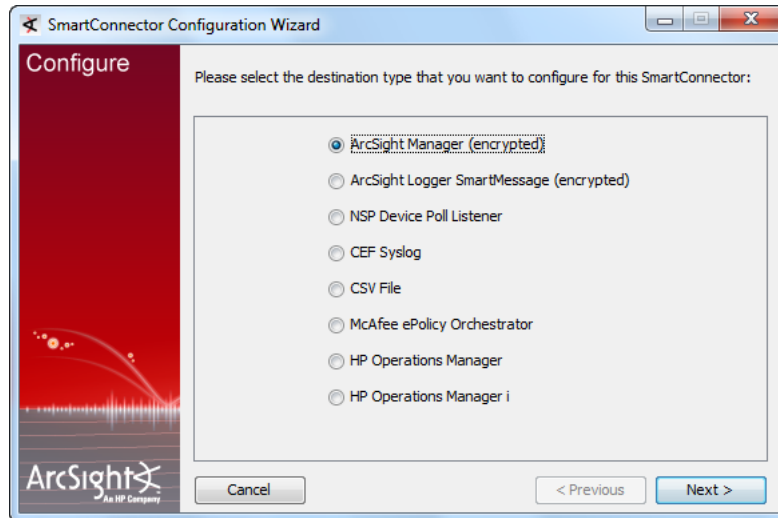


For information regarding operating systems and platforms supported, refer to *SmartConnector Product and Platform Support*, available from ArcSight Technical Support with each SmartConnector release.

To install an ArcSight Forwarding Connector:

- 1 Download the ArcSight executable for your operating system from the ArcSight Customer Support Site according to the instructions provided in the connector release notes.
- 2 Start the installer by running the executable for your operating system, then follow the folder selection tasks and installation of the core SmartConnector software:
 - ◆ Introduction
 - ◆ Choose Install Folder
 - ◆ Choose Install Set
 - ◆ Choose Shortcut Folder
 - ◆ Pre-Installation Summary
 - ◆ Installing...

When installation of the connector core component is complete, the following dialog is displayed:



- 3 Choose your ArcSight Forwarding Connector destination.
 - ◆ To forward events to an **ArcSight ESM Manager**, proceed with [“Forwarding Events to an ArcSight ESM Manager”](#) on page 19.
 - ◆ To forward events to an **ArcSight Logger**, proceed with [“Forwarding Events to ArcSight Logger”](#) on page 23.
 - ◆ To forward events to an **NSP appliance**, proceed with [“Forwarding Events to NSP Device Poll Listener”](#) on page 24.
 - ◆ To forward events to a **CEF Syslog**, proceed with [“Forwarding CEF Syslog Events”](#) on page 25.
 - ◆ To forward events to a **.csv file**, proceed with [“Forwarding Events to a CSV File”](#) on page 26.
 - ◆ To forward events to **McAfee ePolicy Orchestrator (ePO)**, proceed with [“Forwarding Events to McAfee ePolicy Orchestrator”](#) on page 27.



Use of ePO requires installation of **MS SQL Server 2005 for JDBC driver**. For instructions on downloading, see [“Installing the Microsoft SQL Server 2005 Driver for JDBC”](#) on page 28.

- ◆ For detailed configuration instructions on forwarding events to **HP Operations Manager (HP OM)**, see [Chapter 3, Configuration for HP Operations Manager and HP Operations Manager i](#), on page 33.

Uninstalling a Connector

Before uninstalling a connector that is running as a service or daemon, first stop the service or daemon. To uninstall on Windows, open the **Start** menu. Run the **Uninstall SmartConnectors** program located under **All Programs, ArcSight SmartConnectors**. If Connectors are not installed on the **Start** menu, locate the \$ARCSIGHT_HOME\UninstallerData folder and run:

```
Uninstall ArcSightAgents.exe
```

To uninstall on UNIX hosts, open a command window on the `$ARCSIGHT_HOME/UninstallerData` directory and run the command:

```
./Uninstall_ArcSightAgents
```



Note

The UninstallerData directory contains a file `.com.zerog.registry.xml` with Read, Write, and Execute permissions for everyone. On Windows platforms, these permissions are required for the uninstaller to work. However, on UNIX platforms, you can change the permissions to Read and Write for everyone (that is, 666).

The Uninstaller does not remove all the files and directories under the ArcSight SmartConnector home folder. After completing the uninstall procedure, manually delete these folders.

Upgrading a Connector

To locally upgrade the Forwarding Connector:

- 1 Stop the running connector.
- 2 Run the new installer for the ArcSight Forwarding Connector, which prompts you for an installation location.
- 3 Select the location of the Forwarding Connector you want to upgrade; you will receive the message "Previous Version Found - Upgrade Possible" Select the option to continue and upgrade the connector.

The original installation is renamed by prefacing characters to the original folder name; the upgraded connector is installed in the location

`$ARCSIGHT_HOME\current`



Caution

During upgrade, the "Default User Groups" user group is updated and adds the `/All Filters/ArcSight System/Core/No Events` filter to the events ACL. If the Forwarding Connector user is in that group, the connector cannot send events to the destination Manager. To prevent this problem, edit the access control for the Forwarding Connector's parent user group and select a filter that gives permission to the subset of events for which the user has access.

Alternatively, if the user has access to all the events, delete the `/All Filters/ArcSight System/Core/No Events` filter.



Note

The ArcSight Forwarding Connectors must be of the same version as the source ESM.

Rolling Back a Connector

To roll back a connector:

- 1 Stop the upgraded connector, which is under `current`.
- 2 Rename the current folder to a name based upon the build version of the upgraded connector.
- 3 Rename the old connector build folder to `current`.

4 Start the connector.



Rolling back the connector to **build 5116** or earlier disallows use of the McAfee ePolicy Orchestrator destination.

Configuration for Forwarding Events

This chapter provides step-by-step instructions for configuring various Forwarding Connector destinations. The following destinations are described.

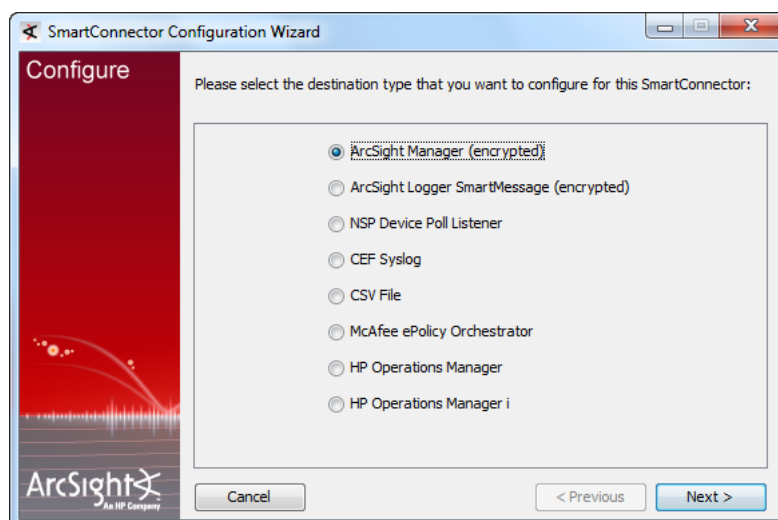
- "Forwarding Events to an ArcSight ESM Manager" on page 19
- "Forwarding Events to ArcSight Logger" on page 23
- "Forwarding Events to NSP Device Poll Listener" on page 24
- "Forwarding CEF Syslog Events" on page 25
- "Forwarding Events to a CSV File" on page 26
- "Forwarding Events to McAfee ePolicy Orchestrator" on page 27

Forwarding Events to an ArcSight ESM Manager

To continue connector configuration for forwarding events to an ESM Manager, follow the procedure below.

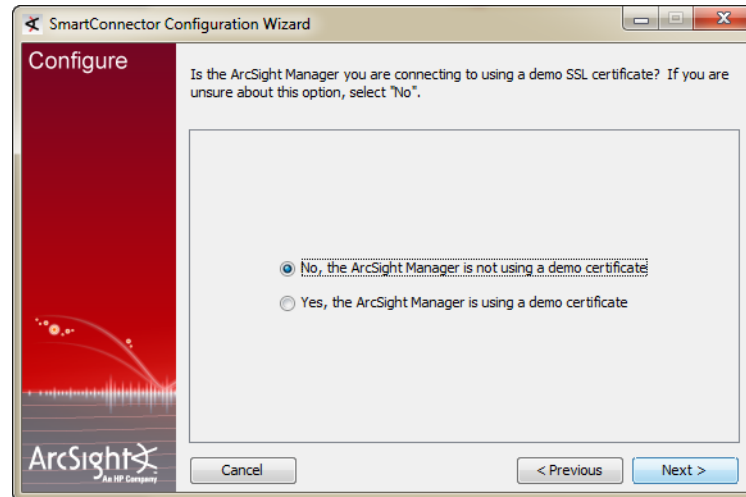
To continue connector configuration:

- 1 Select **ArcSight Manager (encrypted)**, and click **Next**.



- 2 The Wizard first prompts you for Manager certificate information.
 - ◆ The default is **No**, the **ArcSight Manager is not using a demo certificate**.
 - ◆ Choose **Yes** if ArcSight Manager is using a demo certificate.

Before selecting this option, make sure the Manager is, in fact, using a demo SSL certificate. If you are unsure, select **No** or consult your system administrator.

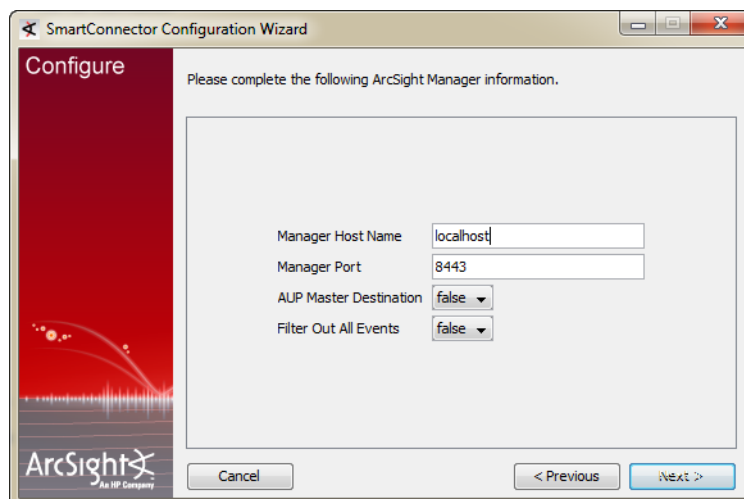


If your ArcSight Manager is using a self-signed or CA-signed SSL certificate, select **No**, the ArcSight Manager is not using a demo certificate and click **Next**.



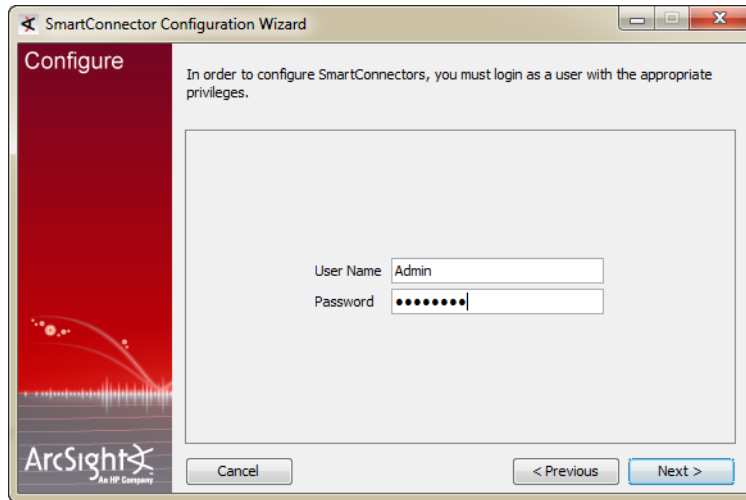
After completing the SmartConnector installation wizard, remember to configure the connector for the type of SSL certificate your Manager is using manually. Refer to the *ArcSight ESM 5.0 Administrator's Guide* for instructions about configuring your SmartConnector when the Manager is using a self-signed or CA-signed certificate, and for instructions about enabling SSL client authentication on SmartConnectors so that the connectors and the Manager authenticate each other before sending data.

- 3 You are prompted for **Manager Host Name** and **Manager Port**. This is your destination ESM Manager. Enter the information and click **Next**.



- 4 Enter a valid ArcSight **User Name** and **Password** and click **Next**.

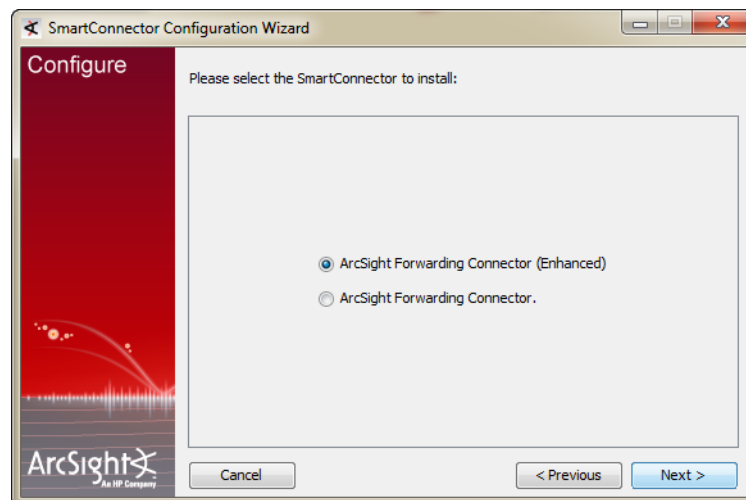
This is the user name and password for the user account you created on the destination ESM Manager.



- 5 You are given a choice of Forwarding Connector versions to install. If you are currently using ESM **v4.0 SP3** or later, ArcSight recommends choosing the **ArcSight Forwarding Connector (Enhanced)** option. When choosing which version to use, note the following:

- ◆ The **ArcSight Forwarding Connector** option supports the previous software version and does not include the increased event rate and recoverability features of **ArcSight Forwarding Connector (Enhanced)**. ArcSight recommends using the older option only when communicating with a pre-v4.0 SP3 ESM installation.
- ◆ Neither Forwarding Connector release is **FIPS compliant**. If you require FIPS compliance, retain your current Forwarding Connector version.
- ◆ The capacity of events that can be stored during a system failure is dependent on the FileStore size of your source ESM Manager. Choosing the **ArcSight Forwarding Connector (Enhanced)** version *requires configuration adjustments on your source ESM Manager*.

For instructions on how to determine and change your source disk settings, see ["Increasing the FileStore size \(Enhanced version only\)" on page 13](#). Click **Next**.



- 6 Enter the information to configure the Forwarding Connector, then click **Next** to continue. This is information about your source ESM Manager, as described in the table below.

Parameter	Description
ArcSight Source Manager Hostname	Hostname where the ArcSight ESM Source Manager is installed.
ArcSight Source Manager Port	Network Port where the ArcSight ESM Source Manager is accepting requests.
ArcSight Source Manager User Name	The ArcSight user name created with permissions for the Forwarding Connector on the ArcSight ESM Source Manager.
ArcSight Source Manager Password	ArcSight's password that will be used to log this Connector into the ArcSight ESM Source Manager.

- 7 Enter a name for the connector and provide other information identifying the connector's use in your environment. Click **Next**.
- 8 Read the connector summary; if it is correct, click **Next**. If the summary is not correct, click **Previous** to make changes before continuing.
- 9 When the connector completes its configuration, click **Next**. The wizard now prompts you to choose whether you want to run the connector as a process or as a service. If you choose to run the connector as a service, the wizard prompts you to define service parameters for the connector.
- 10 After making your selections, click **Next**. The wizard displays a dialog confirming the connector's setup and service configuration.
- 11 Click **Finish**.
- 12 Click **Done**.

Forwarding Events to ArcSight Logger

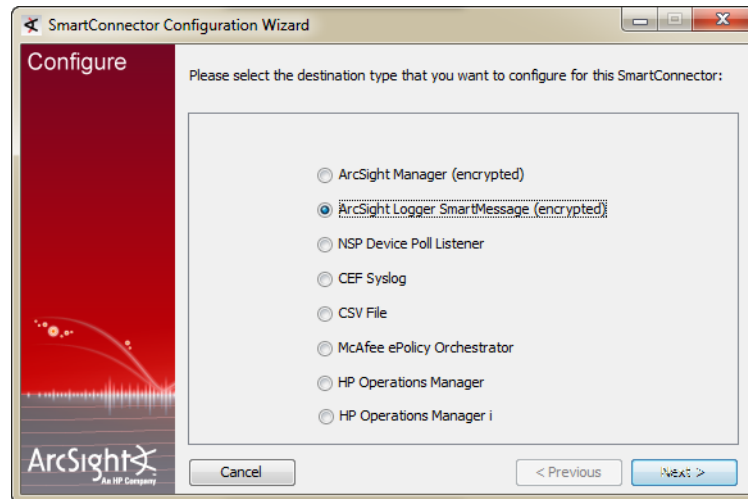


When configuring the Forwarding Connector to send events to a non-ESM destination, you might encounter problems with certificate validation during connector setup. See [“Sending Events to a Non-ESM Location” on page 9](#) for information on certificate validation.

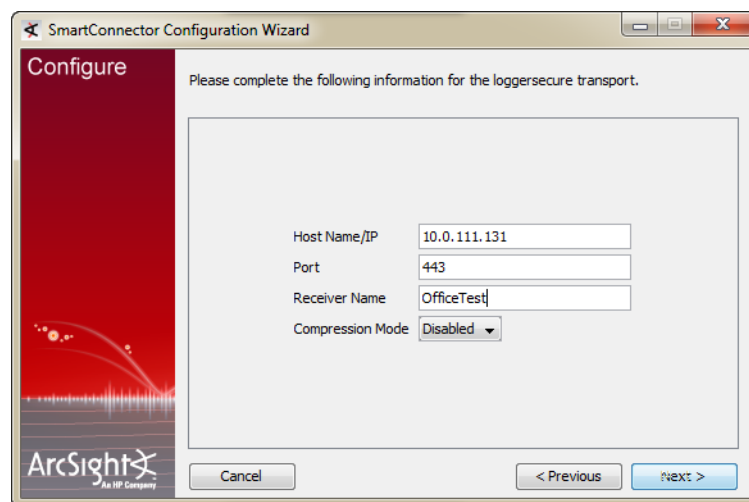
Before you continue connector configuration for forwarding events to an ArcSight Logger, ensure that a SmartMessage Receiver has been set up on ArcSight Logger for the Forwarding Connector (Refer to the *ArcSight Logger Administrator's Guide* for details).

To continue connector configuration:

- 1 Select **ArcSight Logger SmartMessage (encrypted)** from the following dialog:



- 2 Enter the Logger **Host Name/IP** address, leave the port number at the default value of **443**, and enter the **Receiver Name**. This Receiver Name is the name of the SmartMessage Receiver you set up on ArcSight Logger for the Forwarding Connector. Click **Next** to continue.



- 3 Click **Next** and continue following the steps to complete your configuration. Refer to the Parameters [on page 22](#) for parameter descriptions. When a message confirms that configuration was successful, click **Finish** to exit the wizard.

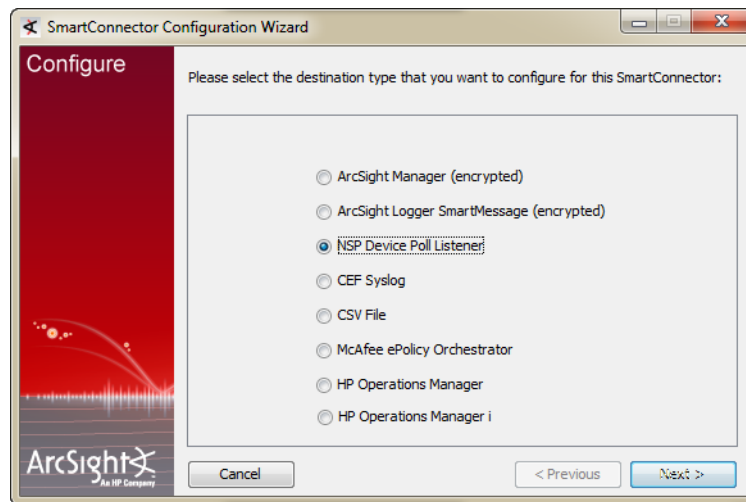
Forwarding Events to NSP Device Poll Listener



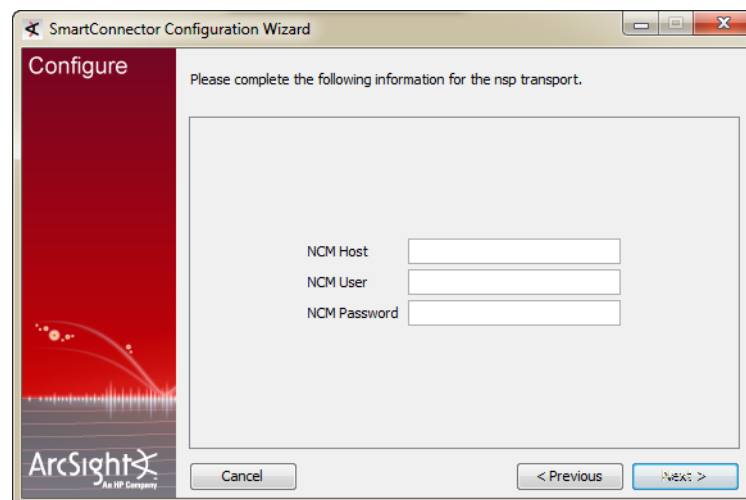
When configuring the Forwarding Connector to send events to a non-ESM destination, you might encounter problems with certificate validation during connector setup. See [“Sending Events to a Non-ESM Location”](#) on page 9 for information on certificate validation.

To continue connector configuration for forwarding events to NSP:

- 1 Select **NSP Device Poll Listener** from the selections and click **Next**.



- 2 Provide the NCM/TRM Host name or IP address, and login credentials for the NCM/TRM that will interact with the Syslog Connector



- 3 Click **Next** and continue following the steps to complete your configuration until a message confirms that it was successful. Click **Finish** to exit the wizard.

For more information about NSP, refer to the *ArcSight™ NSP Installation and Administration Guide*.

Forwarding CEF Syslog Events

You can also configure the ArcSight Forwarding Connector to send CEF Syslog events to any Syslog receiver (including ArcSight Logger.)

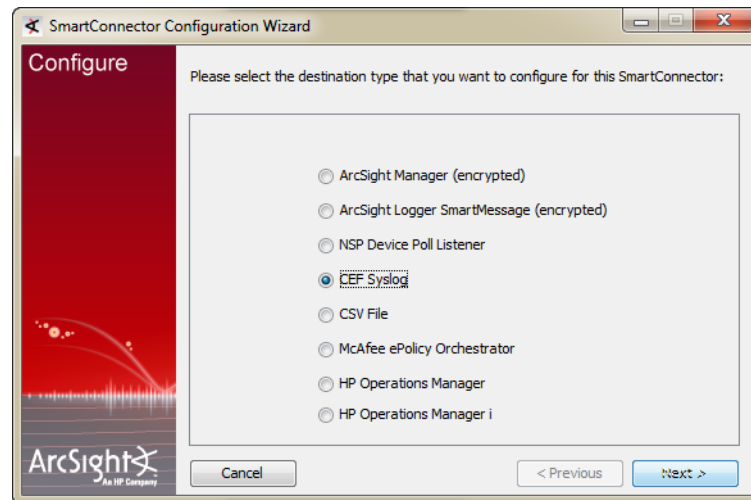


Caution

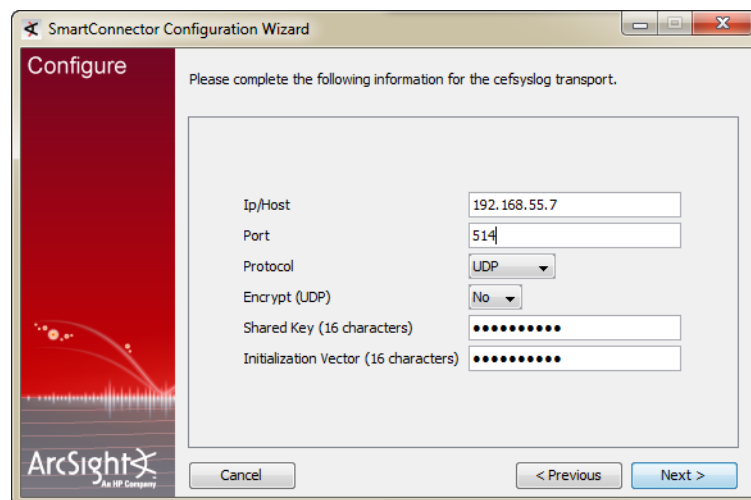
When configuring the Forwarding Connector to send events to a non-ESM destination, you might encounter problems with certificate validation during connector setup. See [“Sending Events to a Non-ESM Location” on page 9](#) for information on certificate validation.

To configure the connector to send CEF Syslog events:

- 1 Select **CEF Syslog** from the following window:



- 2 Enter the Logger **hostname** or **IP address**, the desired port, and choose **UDP** or **TCP** output. Click **Next** to continue.



- 3 Click **Next** and continue following the Configuration Wizard to complete your configuration until a message confirms that it was successful. Click **Finish** to exit the wizard.

Forwarding Events to a CSV File

This option allows you to capture events a SmartConnector would normally send to the ArcSight ESM Manager and send them to a `.csv` file. The Excel-compatible comma-separated values (CSV) format allows for comments prefixed by `#`.

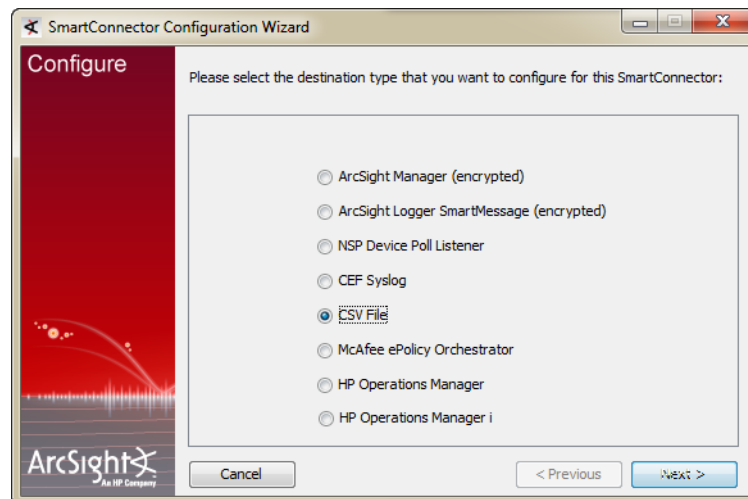


Caution

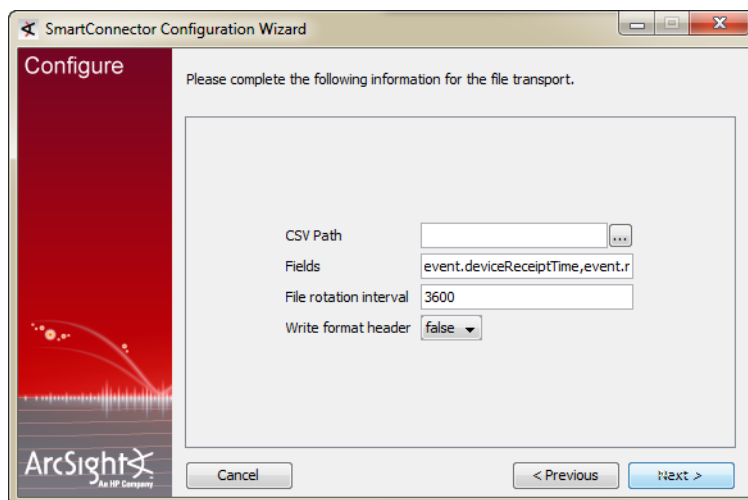
When configuring the Forwarding Connector to send events to a non-ESM destination, you might encounter problems with certificate validation during connector setup. See [“Sending Events to a Non-ESM Location” on page 9](#) for information on certificate validation.

To forward events to a `.csv` file:

- 1 Select **CSV File** and click **Next**.



- 2 For these options, enter values as described in the table below.



Parameter	Description
CSV Path	The path to the output folder. If one does not exist, a folder is created.

Parameter	Description
Fields	A comma-delimited string of field names to be sent to the <code>.csv</code> file. Field names are in the form <code>event.<FieldName></code> .
File rotation interval	The desired file rotation interval, in seconds. The default is 3,600 (one hour).
Write format header	Select true to send a header row with labels for each column, as described above.

- Click **Next** and continue following the steps to complete your configuration until a message confirms that it was successful. Click **Finish** to exit the wizard.

For more information about capturing events and `.csv` files, refer to the section titled "Capturing Events from SmartConnectors" in the *SmartConnector User's Guide*.

Forwarding Events to McAfee ePolicy Orchestrator

This option allows you to forward events to McAfee ePolicy Orchestrator (ePO), a scalable tool for centralized anti-virus and security policy management and enforcement. ePO leverages ESM event filtering/correlation and auditing capabilities to create a single view into security events within ePO.

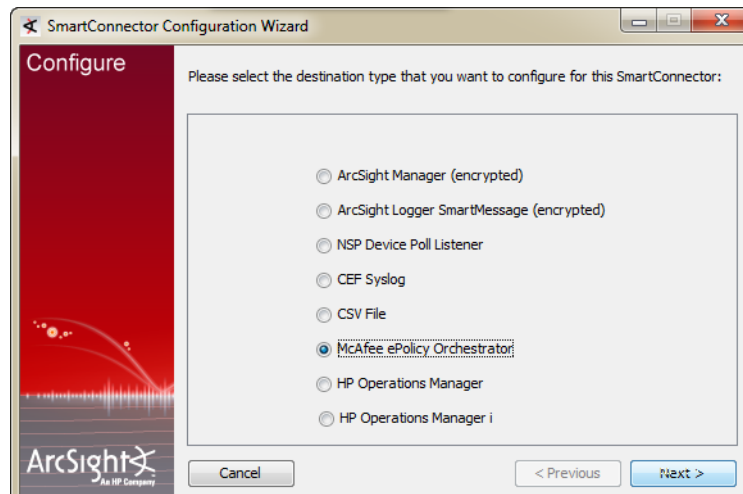
McAfee ePO v4.0 and v4.5 are supported currently.



Use of ePO requires installation of **MS SQL Server 2005 for JDBC driver**. For instructions on downloading, see ["Installing the Microsoft SQL Server 2005 Driver for JDBC" on page 28](#).

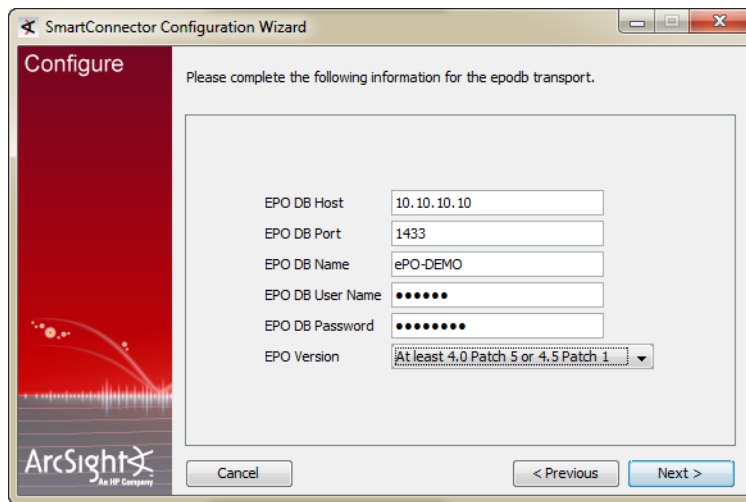
To forward events to McAfee ePO:

- On the destination selection window displayed, select **McAfee ePolicy Orchestrator** and click **Next**.



When using this transport, the Forwarding Connector is automatically configured to limit the outgoing event rate to 10 events per minute. This is due to a limitation on McAfee ePO's database as specified by McAfee.

- 2 Enter values for the ePO database connectivity on the window displayed:



The image shows the 'SmartConnector Configuration Wizard' window, specifically the 'Configure' step. The window title is 'SmartConnector Configuration Wizard'. The main area is titled 'Configure' and contains the instruction: 'Please complete the following information for the epodb transport.' Below this instruction are several input fields: 'EPO DB Host' with the value '10.10.10.10', 'EPO DB Port' with the value '1433', 'EPO DB Name' with the value 'ePO-DEMO', 'EPO DB User Name' with masked characters '.....', 'EPO DB Password' with masked characters '.....', and 'EPO Version' with a dropdown menu showing 'At least 4.0 Patch 5 or 4.5 Patch 1'. At the bottom of the window are three buttons: 'Cancel', '< Previous', and 'Next >'. The ArcSight logo is visible in the bottom left corner.



Tip

- To log on to the database at this point, only Microsoft SQL Server authentication is supported (Windows authentication is not).
- Customers are encouraged to create a user dedicated to ArcSight with permissions to execute the stored procedure.

- 3 Click **Next** to complete your configuration and verify that it is successful. Click **Finish** to exit the wizard.



Caution

Rolling back the connector to **build 5116** or earlier disallows use of the McAfee ePolicy Orchestrator destination.

Installing the Microsoft SQL Server 2005 Driver for JDBC

To download and install a JDBC driver:

- 1 Download the **MS SQL Server 2005 JDBC Driver 1.2** from Microsoft at:
<http://www.microsoft.com/downloads/details.aspx?FamilyId=C47053EB-3B64-4794-950D-81E1EC91C1BA&displaylang=en>
- 2 Install the driver.
- 3 Copy the `sqljdbc.jar` jar file from the folder `C:\Program Files\Microsoft SQL Server 2005 JDBC Driver\sqljdbc_1.2\enu` to `$ARCSIGHT_HOME/current/user/agent/lib`, where `$ARCSIGHT_HOME` refers to the connector install folder, such as `c:\ArcSight\SmartConnectors`.
- 4 From `$ARCSIGHT_HOME/current/bin`, double-click `runagentsetup` to return to the SmartConnector Configuration Wizard.

ArcSight Event to McAfee CEF Mappings

The Forwarding Connector translates ArcSight events into McAfee's Common Event Format.



The McAfee CEF field column shown below does not represent fields seen within the Console GUI of McAfee ePolicy Orchestrator. This column represents fields within the database.

The following table describes how the fields are mapped:

McAfee CEF Field	ArcSight Field
AgentGUID	agented (converted to match the AgentGUID format; guaranteed to be unique ONLY within ArcSight)
Analyzer	Fixed value: S_ARST__1000
AnalyzerDATVersion	deviceCustomString6
AnalyzerHostName	deviceHostName
AnalyzerIPV4	deviceAddress
AnalyzerMAC	deviceMacAddress
AnalyzerName	deviceProduct
AnalyzerVersion	deviceVersion
DetectedUTC	deviceReceiptTime
SourceHostName	sourceHostName
SourceIPV4	sourceAddress
SourceMAC	sourceMacAddress
SourceProcessName	sourceProcessName
SourceURL	requestUrl
SourceUserName	sourceUserName
TargetFileName	fileName
TargetHostName	destinationHostName
TargetIPV4	destinationAddress
TargetMAC	destinationMacAddress
TargetPort	destinationPort
TargetProcessName	destinationProcessName
TargetProtocol	applicationProtocol
TargetUserName	destinationUserName
ThreatActionTaken	deviceAction
ThreatCategory	deviceEventCategory

McAfee CEF Field	ArcSight Field
ThreatEventID	agentSeverity 200300 – Unknown 200301 – Low 200302 – Medium 200303 – High 200304 – Very High
ThreatName	name
ThreatType	deviceEventClassId

For more details regarding McAfee ePolicy Orchestrator, refer to the *SmartConnector™ Configuration Guide for McAfee ePolicy Orchestrator DB*.

Configuring Multiple Destinations

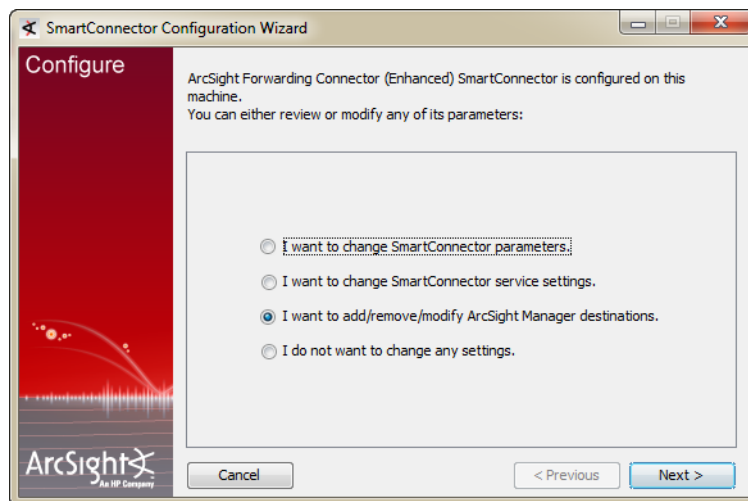
It is also possible to configure multiple destinations, after installation of the Forwarding Connector, using the ArcSight SmartConnector Configuration Wizard.

To start the wizard, execute the following command:

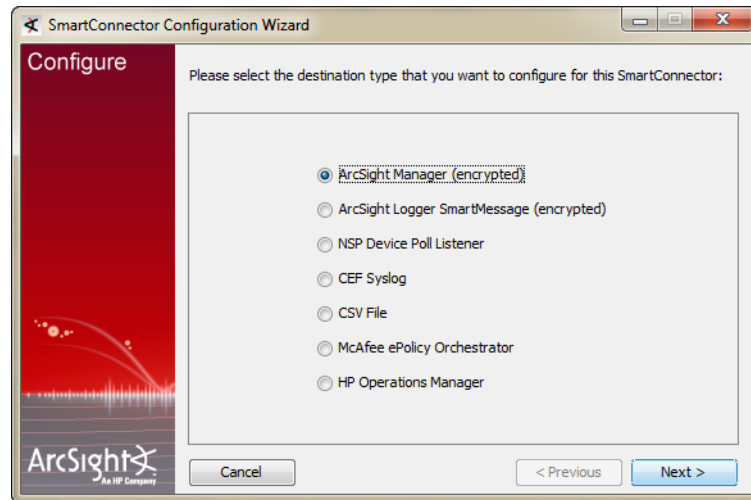
```
$ARCSIGHT_HOME\current\bin\runagentsetup
```

You can either modify the existing destination or add a new destination. For this example, adding a second Manager.

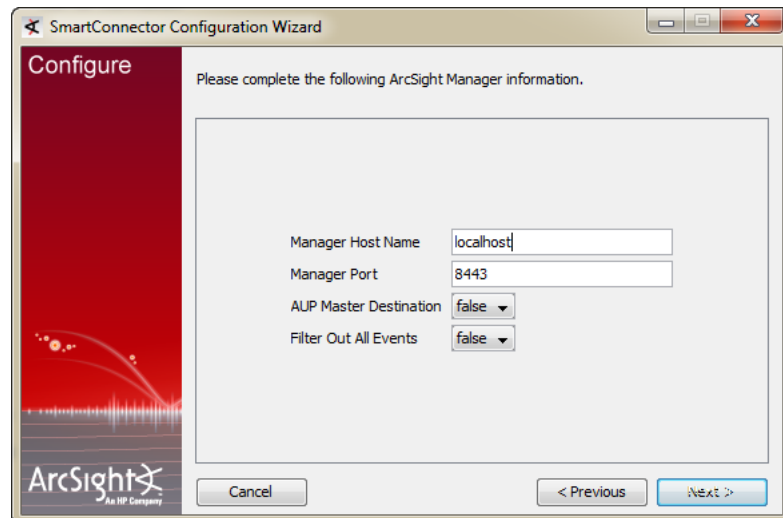
- 1 Select **I want to add/remove/modify ArcSight Manager destinations** and click **Next**.



- 2 Select the destination type. Click **ArcSight Manager (encrypted)**, then **Next**.



- 3 Click **Add new destination** to add a new SmartConnector destination and click **Next**.
- 4 Fill in the parameters for the destination you want to add and click **Next** to finish.



- 5 To apply your changes, restart the SmartConnector.

Chapter 3

Configuration for HP Operations Manager and HP Operations Manager i

This guide provides information on installing and configuring the ArcSight Forwarding Connector.

- [“The ArcSight ESM Source Manager” on page 34](#)
- [“Supported Versions of HP OM and HP OMi” on page 34](#)
- [“Installing the Connector” on page 34](#)
- [“Creating an SNMP Interceptor Policy for HP Operations Manager \(HP OM\)” on page 38](#)
- [“Creating an SNMP Interceptor Policy for HP Operations Manager i \(HP OMi\)” on page 40](#)
- [“Troubleshooting Tips” on page 40](#)
- [“Adjusting the Event Processing Rate for HP OM and HP OMi” on page 41](#)

ArcSight ESM sends correlated security events to IT operation teams to investigate and take remediation measures to reduce or eliminate security risks. The ArcSight Forwarding Connector logs into the source manager, then sends system events and network health information to HP OM from non-SNMP event sources. The ArcSight Forwarding Connector can be used to collect from event sources that support syslog, file, database, API, and other collection methods through ESM.

HP Operations Manager (HP OM) provides comprehensive event management, proactive performance monitoring, and automated alerting, reporting, and graphing for operating systems, middleware, and applications. It is designed to provide service-driven event and performance management of business-critical enterprise systems, applications, and services. The following topics are described.

HP Operations Manager i (HP OMi) enables the HP BSM Operations Management component in BSM. BSM Operations Management provides a complete monitoring solution, consolidating all IT infrastructure monitoring in a central event console, and relating the events to the IT services that depend on that infrastructure. See the *HP Business Service Management Operations Manager i Concepts Guide* for details on BSM.

HP BSM Integration Adapter is an integration solution that enables you to monitor event sources, and, if certain conditions apply, to forward the detected events as HP Business Service Management (BSM) events directly to BSM Operations Management. See the *Using HP BSM Integration Adapter Guide* for details on HP BSM Integration Adapter.

The ArcSight ESM Source Manager

Before installing the Forwarding Connector, create a Forwarding Connector account on the ESM Manager. For detailed instructions on how to do this, see [Chapter 1, Assigning Privileges on the ESM Source Manager, on page 10](#).

Supported Versions of HP OM and HP OMi

The supported versions of HP OM and HP OMi include:

- HP OM for Windows v9.0 and 8.16 (patch level 90)
- HP OM for UNIX v9.10
- HP OM for Linux v9.10
- HP OMi v9.0.1.



OMi users are strongly encouraged to apply the latest patch, OMI_00005 (build 09.01.210), to obtain critical fixes before running this integration.

HP OM and HP OMi and Correlation Events

When all rule conditions and thresholds are met, ESM generates an internal event called a **correlation event**. A correlation event represents the events that contributed to the rule being triggered and the relevant data contained in them.

Although most ESM users can use the default settings available for pulling events, HP OM and HP OMi users commonly require only correlated events to be pulled from ESM. In such cases, HP OM and HP OMi users can select correlated events. To allow for only correlated events and restrict the pulling of base events, configure ESM to **pull correlated events**, then **allow the forwarding of correlated events**, in that order. For detailed instructions to perform these steps, see [Chapter 1, Forwarding Correlation Events, on page 11](#).

HP OM and HP OMi use a SNMP trap policy to allow ArcSight events to be accepted within the HP OM or HP OMi environment. For instructions on how to create an SNMP interceptor, see [“Creating an SNMP Interceptor Policy for HP Operations Manager \(HP OM\)” on page 38](#) or [“Creating an SNMP Interceptor Policy for HP Operations Manager i \(HP OMi\)” on page 40](#).

Installing the Connector

Before you install the connector, make sure that the ArcSight products with which the connectors will communicate have already been installed correctly (the ArcSight Logger, for example) and you have assigned appropriate privileges. For data security, ArcSight recommends that you install the connector and the HP Operations Agent on the same system.

- 1 Download the ArcSight executable for your operating system from the ArcSight Customer Support Site.
- 2 Start the ArcSight Installer by running the executable.

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

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

- 3 The destination selection window is displayed. If you are using the ESM Manager Demo License, continue with steps A through C below. Otherwise, click Next and continue with step 4.

When configuring the connector to send events to a non-ESM destination, you could encounter a problem with certificate validation during connector setup when using the ESM Manager Demo certificate. To make sure the demo CA is added to the client trust store to validate the ESM Manager's demo certificate, follow these steps:

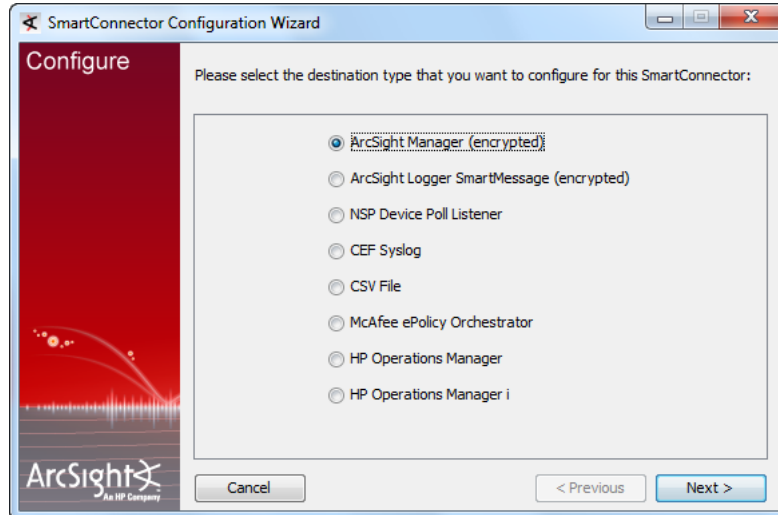
- a Click **Cancel** to exit the configuration wizard.
- b From the `$ARCSIGHT_HOME\current\bin` directory, run the following command:

```
arcsight connector tempca -ac -n <1.1.1.1>
```

 where `<1.1.1.1>` is the IP address of the ESM Manager.
- c Enter the following command from the same location to return to the wizard:

```
arcsight connectorsetup
```

The following destination window is displayed, choose **HP Operations Manager** or **HP Operations Manager i**, then click **Next** to continue.

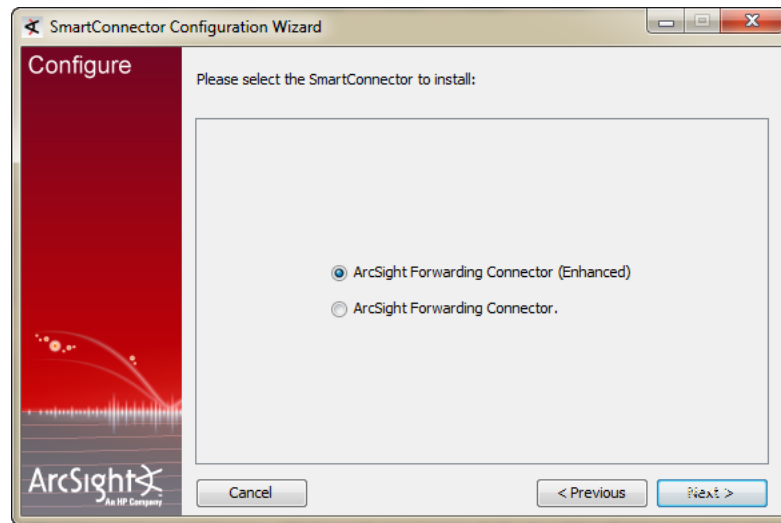


- 4 Fill in the parameter information required for connector configuration, then click **Next**.

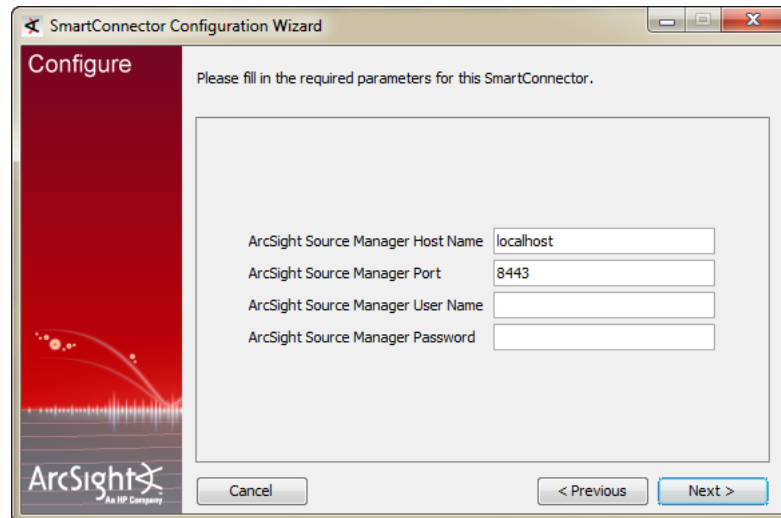
The image shows the 'SmartConnector Configuration Wizard' dialog box. The title bar says 'SmartConnector Configuration Wizard'. The main window has a red sidebar on the left with the word 'Configure' and the ArcSight logo. The main area has the text 'Please complete the following information for the om transport.' Below this is a list of configuration parameters with input fields or dropdown menus. The parameters and their values are: Host (127.0.0.1), Port (162), Version (SNMP_VERSION_2), Read Community(v2) (public), Write Community(v2) (public), Authentication Username(v3) (empty), Authentication Password(v3) (empty), Security Level(v3) (AuthNoPriv), Authentication Scheme(v3) (MD5), Privacy Password(v3) (empty), and Context Engine Id(v3) (empty). At the bottom are three buttons: 'Cancel', '< Previous', and 'Next >'.

Parameter	Description
Host	For HP OM, enter the Host name or IP address of the HP OM device. This is the HP OM managed node (the system where the HP Operations Agent is installed, and to which the SNMP interceptor policy is deployed). For HP OMI, enter the Host name or IP address of the HP BSM Integration Adapter.
Port	For HP OM and HP OMI, enter the port to be used by the device to monitor for events by the HP Operations Agent or by the BSM Integration Adapter monitoring for SNMP traps from the ArcSight Logger.
Version	Accept the default value of SNMP_VERSION_2 . SNMP_VERSION_3 is not available at this time.
Read Community(v2)	Enter the SNMP Read Community name.
Write Community(v2)	Enter the SNMP Write Community name.
Authentication Username(v3)	For use with SNMP v3; not available at this time.
	Authentication Password(v3)
	Security Level(v3)
	Authentication Scheme(v3)
	Privacy Password(v3)
	Context Engine Id(v3)
	Context name(v3)

- 5 Choose **ArcSight Forwarding Connector (Enhanced)**, then click **Next**.

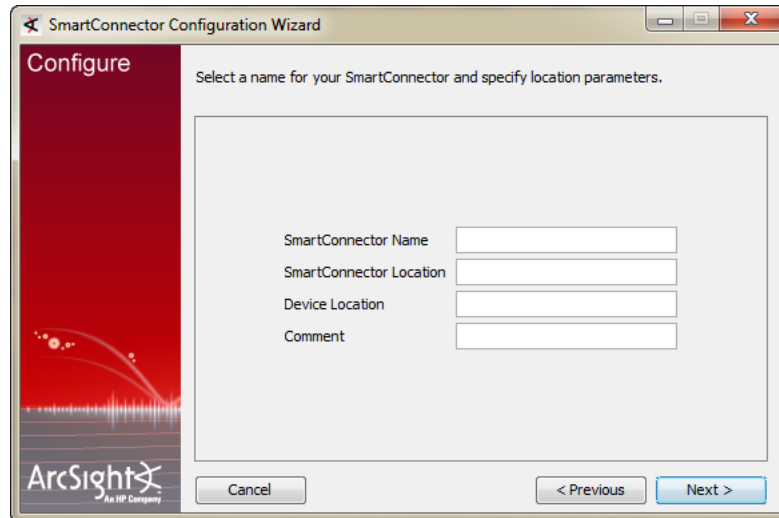


- 6 Enter the Source Manager information, then click **Next**.



Parameter	Description
ArcSight Source Manager Host Name	Enter the name of the host on which the ESM Source Manager is installed.
ArcSight Source Manager Port	Enter the network port from which the ESM Source manager is accepting requests. The default port is 8443.
ArcSight Source Manager User Name	Enter the ArcSight user name created with permissions for the adaptor on the ArcSight ESM Source Manager.
ArcSight Source Manager Password	Enter the ArcSight password that will be used to log this adaptor into the ArcSight ESM Source Manager.

- 7 Enter a name for the connector and provide other information identifying the connector's use in your environment. Click **Next**.



The image shows a screenshot of the 'SmartConnector Configuration Wizard' window, specifically the 'Configure' step. The window has a title bar with standard Windows controls. On the left is a red sidebar with the 'Configure' label and the ArcSight logo at the bottom. The main area has a light gray background with the instruction: 'Select a name for your SmartConnector and specify location parameters.' Below this instruction are four text input fields labeled 'SmartConnector Name', 'SmartConnector Location', 'Device Location', and 'Comment'. At the bottom of the window are three buttons: 'Cancel', '< Previous', and 'Next >'.

- 8 Read the installation summary and click **Next**. If the summary is incorrect, click **Previous** to make changes.
- 9 When the connector completes its configuration, click **Next**. The Wizard now prompts you to choose whether you want to run the connector as a process or as a service.

If you choose to run the connector as a service, the Wizard prompts you to define service parameters for the connector.
- 10 After making your selections, click **Next**. The Wizard displays a dialog confirming the connector's setup and service configuration.
- 11 Click **Finish**.

For some connectors, a system restart is required before the configuration settings you made take effect. If a **System Restart** window is displayed, read the information and initiate the system restart operation.
- 12 Click **Done**.

Creating an SNMP Interceptor Policy for HP Operations Manager (HP OM)

An SNMP interceptor policy is a type of HP OM policy, with rules, conditions, and actions. Rules define what a policy should do in response to a specific type of event. Each rule consists of a condition and an action. SNMP interceptor policies monitor SNMP events, and can start actions when an SNMP event contains a specified character pattern. The Logger Forwarding Connector sends security events as SNMP traps to an HP OM SNMP interceptor policy that you will create.

SNMP interceptor policies can be configured on either HP OM UI, HP OM for Windows, or HP OM for UNIX or Linux. ArcSight provides a template interceptor policy for use in creating your own customized SNMP interceptor policy. This template policy should be customized and enhanced to satisfy different needs and requirements with HP OM's powerful policy edit features. You can upload the ArcSight SNMP interceptor policy template to HP OM for Windows (using the ovpmutil command line tool) and to HP OM for UNIX or Linux (using the opcpolicy command line tool).

See [“Troubleshooting Tips” on page 40](#) for details if you encounter duplicate or dropped events.

Uploading Interceptor Template

After you have completed the connector installation, navigate to `$ARCSIGHT_HOME\current\user\agent\hpompolicy`. This folder provides policy files as a basic SNMP interceptor template.

Using Operations Manager for Windows

Copy the **hpompolicy** folder from `$ARCSIGHT_HOME\current\user\agent\hpompolicy` to the destination HP OM for Windows machine's `C:\temp` directory. Then use the following command to upload the policy:

```
%OvBinDir%\ovpmutil" CFG POL UPL "C:\temp\hpompolicy"
```

You should receive the following messages:

```
Root policy group "for ArcSight Integration" uploading:
Policies upload completed successfully.
```



For descriptions of specific HP OM commands, refer to the HP Operations Manager online help and documentation.

Using Operations Manager for UNIX or Linux

Copy the **hpompolicy** folder from `$ARCSIGHT_HOME\current\user\agent\hpompolicy` to the destination HP OM machine's `/tmp` directory. Then use the following command to upload the policy:

```
/opt/OV/bin/OpC/utills/opcpolicy -upload
dir=/tmp/hpompolicy/"ArcSight Events"
```

You should receive the following message:

```
Operation successfully completed.
```



For descriptions of specific HP OM commands, refer to the HP Operations Manager online help and documentation.

Deploying the Policy

Once you have created your customized SNMP interceptor policy, deploy or assign the policy through the HP OM for Windows or HP OM for UNIX or Linux Administration UI. For details, refer to the HP Operations Manager online help and documentation.

The systems that send the SNMP traps to the logger must also be set up as nodes in HP OM, because HP OM discards messages from unknown systems. Set up an external node or an SNMP node. For details, refer to the HP Operations Manager online help and documentation.

Also, configure the HP Operations Agent for SNMPv2 by setting the **SNMP_SESSION_MODE** variable using the **ovconfchg** command line tool. Refer to the HP Operations Manager or HP Operations Agent online help and documentation for more information.

Creating an SNMP Interceptor Policy for HP Operations Manager i (HP OMi)

HP BSM Integration Adapter SNMP interceptor policies monitor SNMP events, and respond when a character pattern that you choose is found in an SNMP trap. ArcSight provides a template SNMP interceptor policy for use in creating your own customized SNMP interceptor policy. This template policy should be customized and enhanced to satisfy different needs and requirements with HP BSM Integration Adapter's powerful policy edit features.

See [“Troubleshooting Tips” on page 40](#) for details if you encounter duplicate or dropped events.

Uploading Interceptor Template

After you have completed connector installation, navigate to `$ARCSIGHT_HOME\current\system\agent\config\snmp-policies\hpom`. This folder provides policy files as a basic SNMP interceptor template. Copy or provide network access to this folder.

Using the HP BSM Adapter to Import and Activate Policies

In the BSM Integration Adapter, you must import and activate the policy. To do so:

- 1 Click the **Import** icon in the BSM Integration Adapter UI.
- 2 Browse to find the policy files.
- 3 Select the header and data files and click **Open** to import the files. The files will resolve into a policy listed in the BSM Integration Adapter UI. You must import both files for the policy to function correctly.
- 4 Select the policy and click the **Activate** icon.
- 5 Configure the HP Operations Agent to receive SNMPv2 traps by setting the **SNMP_SESSION_MODE** variable. Refer to the *Using HP BSM Integration Adapter Guide* for details on the HP BSM Adapter.

Troubleshooting Tips

Duplicate Events (for HP OMi)

If there appear to be duplicate events forwarded to the HP OMi console:

- 1 Check and adjust deduplication options as needed.
- 2 If, after modifying deduplication options, there still appear to be duplicate events, check the Custom Message Attributes (event details and data), and apply rules to differentiate the events.

For HP OMi, Refer to the *HP Business Service Management Using Operations Management Guide* and help for details.

For HP OM, refer to the HP Operations Manager online help for details.

Dropped Events

If you notice that some events forwarded from ArcSight ESM/Logger are dropped, verify whether the Agent Severity is set correctly in those events. The default SNMP interceptor policy provided by ArcSight in the connector distribution has rules to pick up and forward SNMP Traps from ArcSight ESM/Logger based on the Agent Severity. Events that do not have Agent Severity set are dropped and not forwarded by the SNMP interceptor policy. If the dropped events are correlated events from ESM, make sure that the rules on ESM are set for the correct Agent Severity in the correlated events they generate. If the dropped events are normalized events from devices, then verify that the originating connector that has normalized the event has mapped the Agent Severity correctly from the Device Severity. If the originating connector (that is not setting the Agent Severity) is a FlexConnector, review the mappings and map all of the device severities to one of these Agent Severity values: Low, Medium, High, or Very-High. If the connector is a supported connector, contact customer support.

Adjusting the Event Processing Rate for HP OM and HP OMi

The default event processing rate for forwarding events from ESM to HP OM is **50 eps**. For HP OMi, the default processing rate is **10 eps**. If this rate proves excessive for your system, HP OM or HP OMi might drop some incoming events. If events are being dropped, decrease the event processing rate until you find that all events have arrived.

If this occurs, you can adjust the rate at which events are forwarded to HP OM or HP OMi. To do so, you will need to change the event processing rate within your XML properties file.

To adjust the event processing rate,

- 1 Stop the currently running SmartConnector from operating.
- 2 From a Windows command line, access your XML properties file using the command

```
cd %ARCSIGHT_HOME%/current/user/agent
```

- 3 Use WordPad or any XML Editor to open the .xml file for your HP OM or HP OMi destination, similar to the example below:

```
0Ajv5S8BABCAAeabNXP5Rw==.xml
```

- 4 From within the .xml file, search for the following for HP OM:

```
ProcessingSettings.ThrottleRate="50"
```

or, for HP OMi:

```
ProcessingSettings.ThrottleRate="10"
```

This value controls the current processing event rate.

- 5 Change this value to the desired rate of events per second. For example, to lower the rate of events to 5 eps, change the value after the string to 5:

```
ProcessingSettings.ThrottleRate="5"
```



If there are multiple destinations, repeat the steps above to change the rate for each destination, as required.

- 6 Save the .xml file and exit the XML editor.
- 7 Restart the SmartConnector.

Appendix A

Using the Forwarding Connector in FIPS mode

The following provides explanation and instructions for enabling FIPS compliance in the use of the Forwarding Connector.

[“What is FIPS?” on page 43](#)

[“ArcSight ESM Installation” on page 43](#)

[“FIPS-Enabled Forwarding Connector Installation” on page 44](#)

[“Enable FIPS Suite B Support” on page 49](#)

[“Using Logger in FIPS Mode” on page 49](#)

What is FIPS?

Under the Information Technology Management Reform Act (Public Law 104-106), the Secretary of Commerce approves standards and guidelines that are developed by the National Institute of Standards and Technology (NIST) for Federal computer systems. These standards and guidelines are issued by NIST as Federal Information Processing Standards (FIPS) for use government-wide. NIST develops FIPS when there are compelling Federal government requirements such as for security and interoperability and there are no acceptable industry standards or solutions.



FIPS compatibility applies only to standard ESM and Logger destinations.

Note

ArcSight ESM Installation

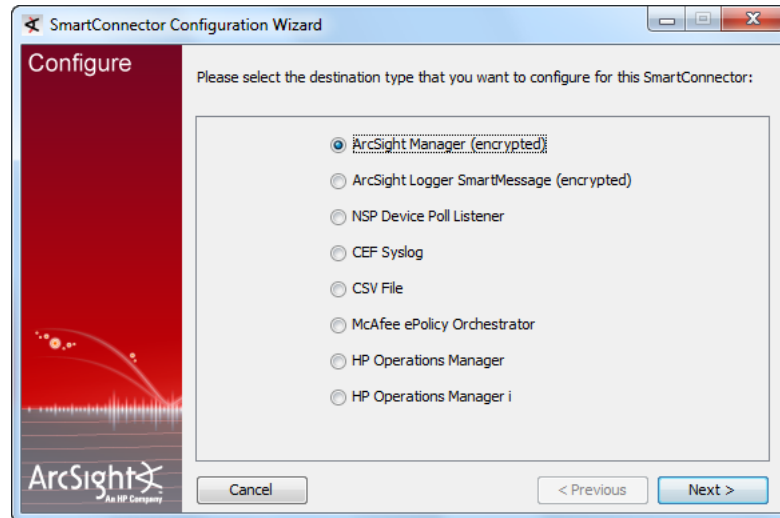
Before you install an ArcSight Forwarding Connector, make sure that ArcSight ESM has already been installed correctly for FIPS compliance. See [“Standard Installation Procedures” on page 9](#) for instructions. Also, ArcSight recommends reading the *ArcSight ESM Installation and Configuration Guide* before attempting to install a new Forwarding Connector.

For information regarding operating systems and platforms supported, see *SmartConnector Product and Platform Support*, available from ArcSight Technical Support with each SmartConnector release.

FIPS-Enabled Forwarding Connector Installation

After completion of ArcSight ESM installation (which includes assigning privileges on the ESM source manager, allowing the forwarding of correlation events, and so on), follow the instructions under [“Installing the Forwarding Connector” on page 14](#) up to and including step 2.

When the installation is complete after step 2, the following dialog is displayed:



- 1 Click **Cancel** to exit connector setup in order to perform configuration of the NSS DB, a necessary step for installing the connector in FIPS-compliant mode. (You will return to the wizard after performing these configuration steps.)

- 2 Create a properties file using the following location:

```
$ARCSIGHT_HOME/user/agent/agent.properties
```

- 3 Add the following line within the file: `fips.enabled=true`

- 4 Copy your key files for source and destination Managers (in this example, `srcmgrkey.cert` and `destmgrkey.cert`) into the `$ARCSIGHT_HOME\current\bin` directory.

- 5 Turn off FIPS enablement on the new installation using the following command:

```
arcsight runmodutil -fips false -dbdir user/agent/nssdb.client
```

- 6 Import the certificates for the source and destination Managers. To do this, see the detailed instructions below:

Where `srcmgrkey` and `destmgrkey` are alias names and `srcmgrkey.cert` and `destmgrkey.cert` are the names with which the certificates from the Managers were saved, import the certificates for the source and destination Managers, using the following commands:

This command imports the source Manager's certificate: `arcsight runcertutil -A -n srcmgrkey -t "CT,C,C" -d user/agent/nssdb.client -i bin/srcmgrkey.cert`

This command will display, in plain text (as shown below), the contents of the source Manager's certificate and can be used to determine the name put into the connector

configuration for the source Manager: `arcsight runcertutil -L -n srcmgrkey -t "CT,C,C" -d user/agent/nssdb.client`



To confirm the Manager's certificate name, look under `Subject: "CN=*`", as shown in the example below.

This command imports the destination Manager's certificate: `arcsight runcertutil -A -n destmgrkey -t "CT,C,C" -d user/agent/nssdb.client -i bin/destmgrkey.cert`

This command will display, in plain text, the contents of the destination Manager's certificate and can be used to determine the name put into the connector configuration for the destination manager: `arcsight runcertutil -L -n destmgrkey -t "CT,C,C" -d user/agent/nssdb.client`

ArcSight certutil starting...

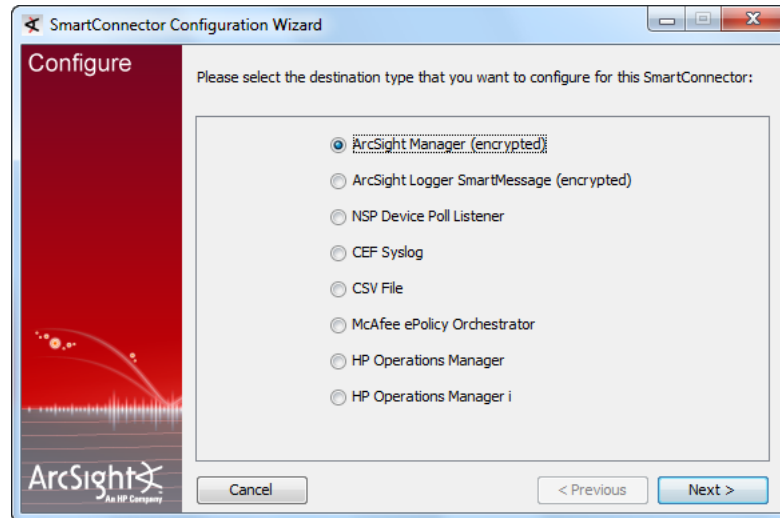
```
Certificate:
  Data:
    Version: 3 (0x2)
    Serial Number: 4524 (0x11ac)
    Signature Algorithm: PKCS #1 MD5 with RSA Encryption
    Issuer: "CN=solar"
    Validity:
      Not Before: Tue Nov 10 03:45:06 2009
      Not After : Wed Feb 10 03:45:06 2010
    Subject: "CN=solar"
    Subject Public Key Info:
      Public Key Algorithm: PKCS #1 RSA Encryption
      RSA Public key:
        Modulus:
          cd:f2:24:ac:7d:12:f8:3e:0c:42:c8:12:d9:33:1b:b0:
          fd:07:fd:f2:6d:38:5d:e0:9c:1a:e8:10:a7:87:ca:f4:
          7e:21:be:b1:58:f4:d9:f5:7f:8c:a9:49:81:1c:75:48:
          23:10:30:d9:06:15:7a:6c:40:f2:fd:ba:62:0c:e5:81:
          23:09:e7:34:74:3a:00:30:99:a6:8d:3f:fe:e6:8d:45:
          c9:55:78:d5:a6:ef:3b:04:2d:7b:45:c8:0f:9f:d4:9c:
          a2:a6:9d:ca:3a:46:2a:0c:49:cd:c0:82:6b:bc:0f:cd:
          99:e1:ca:a0:b9:d7:84:51:5e:76:39:3b:59:82:2b:dd
        Exponent: 65537 (0x10001)
```



Your **host name** needs to match the **Manager's certificate name** (circled above as an example) and be DNS resolvable. If these fields do not match, the connection will be unsuccessful.

- 7 Re-enable FIPS using the following command: `arcsight runmodutil -fips true -dbdir user/agent/nssdb.client`
- 8 Return to connector setup by entering the following command from the `$ARCSIGHT_HOME\current\bin` directory:
`arcsight connectorsetup`
- 9 When prompted to start in Wizard Mode, click **Yes**.

- 10 The Destination selection window is again displayed. Make sure **ArcSight Manager (encrypted)** is selected and click **Next**.

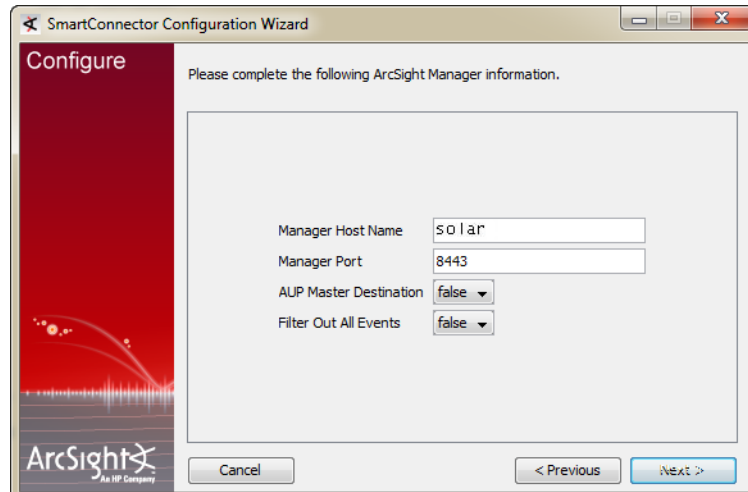


- 11 You are prompted for **Manager Host Name** and **Manager Port**.



The **host name** and **manager's certificate name** must match and be DNS resolvable. If these fields do not match, the connection will be unsuccessful.

This is your destination ESM Manager. Enter the information and click **Next**.



- 12** Enter a valid ArcSight **User Name** and **Password**, and click **Next**. This should be the user name and password for the user account you created on the destination ESM Manager.

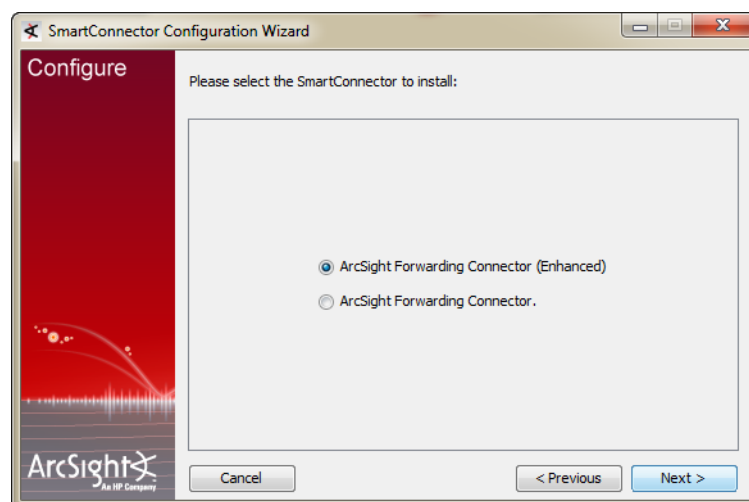


- 13** You are given a choice of Forwarding Connector versions to install. If you are currently using ESM **v4.0 SP3** or later, ArcSight recommends choosing the **ArcSight Forwarding Connector (Enhanced)** option.

When choosing which version to use, note the following:

- ◆ The **ArcSight Forwarding Connector** option supports the previous software version and does not include the increased event rate and recoverability features of **ArcSight Forwarding Connector (Enhanced)**. ArcSight recommends using the older option only when communicating with a pre-v4.0 SP3 ESM installation.
- ◆ The capacity of events that can be stored during a system failure is dependent on the FileStore size of your source ESM Manager. Choosing the **ArcSight Forwarding Connector (Enhanced)** version *requires configuration adjustments on your source ESM Manager*.

For instructions on how to determine and change your source disk settings, see [“Increasing the FileStore size \(Enhanced version only\)” on page 13](#). Click **Next**.



- 14 Enter the information to configure the Forwarding Connector.



The **host name** and **manager certificate name** must match and be DNS resolvable. If these fields do not match, the connection will be unsuccessful.

This is information about your source ESM Manager, as described in the table below.

Click **Next** to continue.

Parameter	Description
ArcSight Source Manager Hostname	Hostname where the ArcSight ESM Source Manager is installed.
ArcSight Source Manager Port	Network Port where the ArcSight ESM Source Manager is accepting requests.
ArcSight Source Manager User Name	The ArcSight user name created with permissions for the Forwarding Connector on the ArcSight ESM Source Manager.
ArcSight Source Manager Password	ArcSight's password that will be used to log this Connector into the ArcSight ESM Source Manager.
Fips Cipher Suites	fipsDefault: Standard Fips SuiteB 128: Fips Suite B with 128Bit encryption SuiteB 192: Fips Suite B with 192Bit encryption

- 15 Enter a name for the connector and provide other information identifying the connector's use in your environment. Click **Next**.
- 16 Read the connector summary; if it is correct, click **Next**. If the summary is not correct, click **Previous** to make changes before continuing.
- 17 When the connector completes its configuration, click **Next**. The wizard now prompts you to choose whether you want to run the connector as a process or as a service. If you choose to run the connector as a service, the wizard prompts you to define service parameters for the connector.

- 18 After making your selections, click **Next**. The wizard displays a dialog confirming the connector's setup and service configuration.
- 19 Click **Finish**.

Enable FIPS Suite B Support

If you have installed a SmartConnector in FIPS-compliant mode, you can enable FIPS Suite B support by modifying the ESM destination parameters.



The ESM Manager must also be installed in FIPS Suite B mode.

To enable FIPS Suite B support:

- 1 From `$ARCSIGHT_HOME\current\user\agent`, open `agent.properties` to edit.
- 2 Locate the following property for ESM destination parameters (approximately, line 10 in the file):


```
agents[0].destination[0].params=<?xml version=\"1.0\"
encoding=\"UTF-8\"?>\n<ParameterValues>\n    <Parameter
Name=\"port\" Value=\"8443\"/>\n    <Parameter
Name=\"filterevents\" Value=\"false\"/>\n    <Parameter
Name=\"host\" Value=\"samplehost.sv.arcsight.com\"/>\n
<Parameter Name=\"aupmaster\" Value=\"false\"/>\n    <Parameter
Name=\"fipsciphers\"
Value=\"fipsDefault\"/>\n</ParameterValues>\n
```
- 3 The destination parameters are specified here as an XML string where each element is one parameter. Based upon the Suite B mode of the ESM Manager, change `fipsDefault` to `suiteb128` (for 128-bit security) or `suiteb192` (for 192-bit security).
- 4 Save and exit `agent.properties`.

Using Logger in FIPS Mode

Arcsight Logger supports the Federal Information Processing Standard 140-2 (FIPS 140-2). If you want to use Logger in the FIPS mode, refer to the *ArcSight Logger Administrator's Guide* and see "Installing or Updating a SmartConnector to be FIPS-compliant" in Chapter 7, "System Admin" for complete instructions.

