



# **Micro Focus Security ArcSight Connectors**

## **SmartConnector for McAfee ePolicy Orchestrator DB**

### **Configuration Guide**

**June, 2018**

## Configuration Guide

### SmartConnector for McAfee ePolicy Orchestrator DB

June, 2018

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## Revision History

| Date       | Description   |
|------------|---|
| 05/16/2018 | Added support for DLP Incident 10000 Removable Storage Protection Events with ePO 5.3. Updated support for DLP Administrative Events with ePO 5.3. Updated support for DLP Discover Events with ePO 5.3. Updated support for DLP Incident Events with ePO 5.3. Updated support for DLP DLP Incident 40102 Removable Storage Protection Events with ePO 5.3.   |
| 03/21/2018 | Added support for McAfee MOVE AV Agentless 4.5.1 with ePO 5.9. Added support for McAfee Application and Change Control 8.0 with ePO 5.9. Added support Data Exchange Layer module version 4.0 for McAfee ePolicy Orchestrator DB version 5.9. Added Support Policy Auditor module version 6.2.2/6.3 for McAfee Policy Orchestrator DB version 5.9 Added support RSD module version 5.0.5 for McAfee ePolicy Orchestrator DB version 5.9 Added support for SiteAdvisor Enterprise (SAE) 3.5.5 with ePO 5.9 Added support for McAfee Drive Encryption 7.2.3 with ePO 5.9 Added support for MSME 8.5 with ePO 5.9 Added support McAfee Threat Intelligence Exchange module version 2.1 with ePO 5.3. |
| 12/19/2017 | Added support for McAfee Host Intrusion Prevention System (HIPS) 8.0 with ePO 5.9.  |
| 11/15/2017 | Added support for VSE 8.8 and ENS 10.5 with ePO 5.9.  |
| 10/20/2017 | Added Source Process Name and Old File Path mappings to Endpoint Security mappings table.   |
| 10/17/2017 | Removed hdlp event type. Added encryption parameters to Global Parameters.  |
| 09/15/2017 | Added support for RSD v5.0. Removed support for HDLP events with ePO 5.1. Updated DLP events with ePO 5.3 mappings.   |
| 08/15/2017 | Added support for the Data Exchange Layer (DXL) component.  |
| 07/15/2017 | Updated JDBC download information. Added support for Orion Audit Log 5.1, and Policy Auditor 6.2 with ePO 5.3.  |
| 06/15/2017 | Added support for McAfee Data Loss Prevention (DLP) 10.0 with ePO 5.3.  |
| 05/15/2017 | Added support for McAfee Endpoint Security (ENS) 10.5 with ePO 5.3.   |

| Date       | Description  |
|------------|--|
| 02/15/2017 | Added support for McAfee Drive Encryption 7.1 SP3 with ePO 5.3.    |
| 11/30/2016 | Added support for Application and Change Control 7.0 with ePO 5.3. |
| 09/30/2016 | Added support for MOVE AV Agentless 3.6 for ePO 5.3.               |
| 08/30/2016 | Added support for MSME 8.5 with ePO 5.3.                           |
| 06/30/2016 | Added support for SiteAdvisor Enterprise (SAE) 3.5 with ePO 5.3.   |

## SmartConnector for McAfee ePolicy Orchestrator DB

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This guide provides information for installing the SmartConnector for McAfee ePolicy Orchestrator DB and configuring the database for event collection. Microsoft SQL Server versions 2008, 2012, and 2014 are supported. See "McAfee ePO Products and Versions Supported" for specific support.

### Product Overview

The ePolicy Orchestrator software provides a scalable tool for centralized anti-virus and security policy management and enforcement. It includes an ePolicy Orchestrator console, ePolicy Orchestrator agent, and ePolicy Orchestrator server.

The ePolicy Orchestrator agent is installed on target client computers and servers where it gathers and reports data, installs products, enforces policies and tasks, and sends events back to the ePolicy Orchestrator server. (McAfee VirusScan and McAfee Desktop Firewall are examples of ePolicy Orchestrator agents.) The ePolicy Orchestrator server acts as a repository for all data collected from distributed agents.

The ePolicy Orchestrator console lets you manage your entire company's anti-virus and security protection and view client computer properties.

### McAfee ePO Products and Versions Supported

Event collection for the following McAfee ePolicy Orchestrator products and versions are supported:

#### ePO 5.9

- McAfee Security for Microsoft Exchange (MSME) 8.5
- McAfee Drive Encryption 7.2.3
- McAfee SiteAdvisor Enterprise (SAE) 3.5.5
- McAfee Rogue System Detection (RSD) 5.0
- McAfee Policy Auditor 6.2.2/6.3
- McAfee Data Exchange Layer (DXL) 4.0
- McAfee Application and Change Control 8.0
- McAfee Management for Optimized Virtual Environments (MOVE) 4.5.1
- McAfee Endpoint Security (ENS) 10.5, including Common, Firewall, Threat Prevention, Web Control, Migration Assistant, and Adaptive Threat Protection events
- McAfee VirusScan Enterprise (VSE) 8.8
- McAfee Host Intrusion Prevention System (HIPS) 8.0

## ePO 5.3

- McAfee Threat Intelligence Exchange 2.1
- McAfee Application and Change Control 7.0
- McAfee Data Loss Prevention (DLP) 10.0
- McAfee Data Exchange Layer (DXL) 3.0.1
- McAfee Drive Encryption 7.1 SP3
- McAfee Endpoint Security (ENS) 10.5, including Common, Firewall, Threat Prevention, Web Control, Migration Assistant, and Adaptive Threat Protection events
- McAfee Host Intrusion Prevention System (HIPS) 8.0
- McAfee Management for Optimized Virtual Environments (MOVE) 3.6
- McAfee Orion Audit Log 5.1
- McAfee Policy Auditor 6.2
- McAfee Security for Microsoft Exchange (MSME) 8.5
- McAfee Rogue System Detection (RSD) 5.0
- McAfee SiteAdvisor Enterprise (SAE) 3.5
- McAfee VirusScan Enterprise (VSE) 8.8

## ePO 5.1

- McAfee Application and Change Control 6.1
- McAfee Host Intrusion Prevention System (HIPS) 8.0
- McAfee Management for Optimized Virtual Environments (MOVE) 3.0
- McAfee Orion Audit Log 5.1
- McAfee Policy Auditor 6.2
- McAfee Rogue System Detection (RSD) 4.7
- McAfee Security for Microsoft Exchange (MSME) 8.0
- McAfee SiteAdvisor Enterprise (SAE) 3.5
- McAfee VirusScan Enterprise (VSE) 8.8

## Event Types

The field **Event Types** is used during SmartConnector installation to select the event types the connector is to process. For example, if you want the connector to process ePO VirusScan events, enter 'virusscan' in the Event Type field.

| Use this parameter: | For this type of event:                                  |
|---------------------|--|
| dlp                 | Data Loss Prevention                                     |
| dlpadministrative   | Data Loss Prevention Administrative                      |
| dlpdiscover         | Data Loss Prevention Discover                            |
| dlpincident         | Data Loss Prevention Incident                            |
| driveencryption     | Drive Encryption   |
| dxi                 | Data Exchange Layer                                      |
| endpointsecurity    | Endpoint Security (ENS)                                  |
| hips                | Host Intrusion Prevention System (HIPS); DesktopFirewall |
| move                | Management for Optimized Virtual Environments            |
| msme                | Microsoft Security for Microsoft Exchange                |
| orionaudit          | Orion Audit Log  |
| policyauditorfile   | Policy Auditor   |
| policyauditorrule   | Policy Auditor   |
| rsd                 | Rogue System Detection                                   |
| siteadvisor         | SiteAdvisor Enterprise                                   |
| solidcore           | Application and Change Control                           |
| tie_server          | Threat Intelligence Exchange Server                      |
| tie_vse             | Threat Intelligence Exchange module for VSE              |
| virusscan           | VirusScan Enterprise                                     |

You can enter a single parameter or a combined list separated by commas.

## Configuration

For information about configuring your ePO agents for event collection, see the appropriate McAfee product documentation.

## Control the Level of Logging in Debug Logs

The following DWORD registry value controls logging:

```
HEKY_LOCAL_MACHINES\SOFTWARE\NETWORK ASSOCIATES\EPOLICY
ORCHESTRATOR\LOGLEVEL
```

The LOGLEVEL values are the numbers 1 through 8.

- The larger the number, the more messages are logged. For example, level 5 logs the first five levels (message) types e, w, i, x, and E).
- If there is no LOGLEVEL, the default is 7.

- Log level 7 (message types e, w, i, x, E, W, and I) is a good value for normal debugging.
- Log level 8 (message types e, w, i, x, E, W, I, and X) produces extensive output, including every SQL query, whether or not there is an error. Log level 8 also provides all communication details needed to troubleshoot issues related to the network and proxy servers.

## Control the Maximum Size of the Debug Logs

The following DWORD registry value controls log size:

```
HKEY_LOCAL_MACHINE\SOFTWARE\NETWORK ASSOCIATES\EPOLICY
ORCHESTRATOR\LOGSIZE
```

The value is the size of the log file in megabytes; for example, 1 = 1 MB, 2 = 2 MB, and so on. The default size is 1 MB.

When most log files reach their maximum size, they are renamed to `<LOG NAME>_BACKUP.LOG` and a new log file is created. If a backup copy of a log file already exists, it is overwritten. Be sure to check both logs; if the log file was recently renamed, it might not contain many messages.

## Confirm SQL User Minimum Privileges

Confirm with the ePO database administrator that the SQL user authenticating to the database has been granted the following:

- Explicitly assigned permissions for CONNECT
- Explicitly assigned permissions for SELECT
- Public role
- db\_datareader role

## Download and Install a JDBC Driver

During the installation process, you will be directed to leave the wizard and copy the JDBC driver file you download to a SmartConnector folder. For information about and to download the MS SQL Server JDBC Driver, see:

<http://msdn.microsoft.com/en-us/sqlserver/aa937724>



Different versions of the JDBC driver are required for different SQL Server database versions; be sure to use the correct driver for your database version. The name of the jar file may be different for some JDBC driver versions.

When you download the JDBC driver, the version of the jar file depends on the version of the JRE the connector uses:

- Version 7.2.1 and later use JRE 1.8 and require sqljdbc42.jar (available with Microsoft JDBC Driver 6.0 for SQL Server)
- Version 7.1.2 and later use JRE 1.7 and require sqljdbc41.jar (available with Microsoft JDBC Driver 6.0 for SQL Server)

- Prior versions, which run JRE 1.6, require sqljdbc4.jar (available with Microsoft JDBC Driver 4.0 for SQL Server)

Install the driver.

For software connectors, copy the jar file appropriate for your SQL Server version from the installation folder for the SQL Server JDBC driver to a temporary location; you will copy this file to `$ARCSIGHT_HOME/current/user/agent/lib`, (where `$ARCSIGHT_HOME` refers to the SmartConnector installation folder, such as `c:\ArcSight\SmartConnectors`) after the core SmartConnector software has been installed at step 3 of Install the SmartConnector. Copy only the jar file associated with the version of the driver to be installed to this location.

## Add a JDBC Driver to the Connector Appliance/ArcSight Management Center

After downloading and extracting the JDBC driver, upload the driver into the repository and apply it to the appropriate container or containers, as described in this section.

- 1 From the Connector Appliance/ArcSight Management Center, select **Setup -> Repositories**.
- 2 Select **JDBC Drivers** from the left pane and click the **JDBC Drivers** tab.
- 3 Click **Upload to Repository**.
- 4 From the **Repository File Creation Wizard**, select **Individual Files**, then click **Next**.
- 5 Retain the default selection and click **Next**.
- 6 Click **Upload** and locate and select the `.jar` file you downloaded in step 3 of SmartConnector Installation.
- 7 Click **Submit** to add the specified file to the repository and click **Next** to continue.
- 8 After adding all files you require, click **Next**.
- 9 In the **Name** field, enter a descriptive name for the zip file (`JDBCdriver`, for example). Click **Next**.
- 10 Click **Done** to complete the process; the newly added file is displayed in the **Name** field under **Add Connector JDBC Driver File**.
- 11 To apply the driver file, select the driver `.zip` file and click the up arrow to invoke the **Upload Container Files** wizard. Click **Next**.
- 12 Select the container or containers into which the driver is to be uploaded; click **Next**.
- 13 Click **Done** to complete the process.
- 14 Add the connector through the Connector Appliance/ArcSight Management Center interface; see the *Connector Appliance/ArcSight Management Center Online Help* for detailed information. Descriptions of parameters to be entered during connector configuration are provided in the "Install the SmartConnector" section of this guide.



## Configure the JDBC Driver and Windows Authentication

This section provides guidance on how to use a JDBC driver with SmartConnectors that connect to Microsoft SQL Servers using Windows Authentication only. As previously described, download the SQL JDBC drivers from Microsoft and install the driver before beginning this procedure.



The JDBC driver does not provide function to supply Windows authentication credentials such as user name and password. In such cases, the applications must use SQL Server Authentication. When installing the connector on a non-Windows platform, configure the Microsoft SQL Server for Mixed Mode Authentication or SQL Server Authentication.

Microsoft Type 4 JDBC drivers (versions 4.0 or later) support integrated authentication. Windows Authentication works only when using one of these drivers. You also will need to add `;integratedSecurity=true` to the JDBC URL entry for the connection to your database.

- 1 Copy the `sqljdbc_auth.dll` file from the JDBC driver download to the `$ARCSIGHT_HOME\jre\bin` directory. For example, the JDBC driver download path for SQL JDBC driver version 4.0 for 32-bit environment would be `sqljdbc_4.0\enu\auth\x86\sqljdbc_auth.dll` and, for 64-bit environment, `sqljdbc_4.0\enu\auth\x64\sqljdbc_auth.dll`.



When upgrading a connector, the `$ARCSIGHT_HOME\jre\bin` directory is overwritten; therefore, you will need to copy the authentication file to this folder again after update.

- 2 Go to `$ARCSIGHT_HOME\current\bin` and double-click `runagentsetup` to continue the SmartConnector installation.
- 3 When entering the connector parameters, in the **JDBC Database URL** field, append `;integratedSecurity=true` to the end of the URL string.

The following is an example; note that the name or instance of the database configured at installation/audit time should be used.

```
jdbc:sqlserver://mysqlserver:1433;DatabaseName=mydatabase;integratedSecurity=true
```

- 4 Complete the remaining connector wizard configuration steps.
- 5 After completing the connector installation, if running on a Windows Server, change the service account to use the Windows account that should login to the database. The Connector will use the account used to start the service, regardless of the account value setting entered in the connector setup process.

## Install the SmartConnector

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

ArcSight recommends you do not install database connectors on the database server or any mission critical servers as this could cause performance issues.

## 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

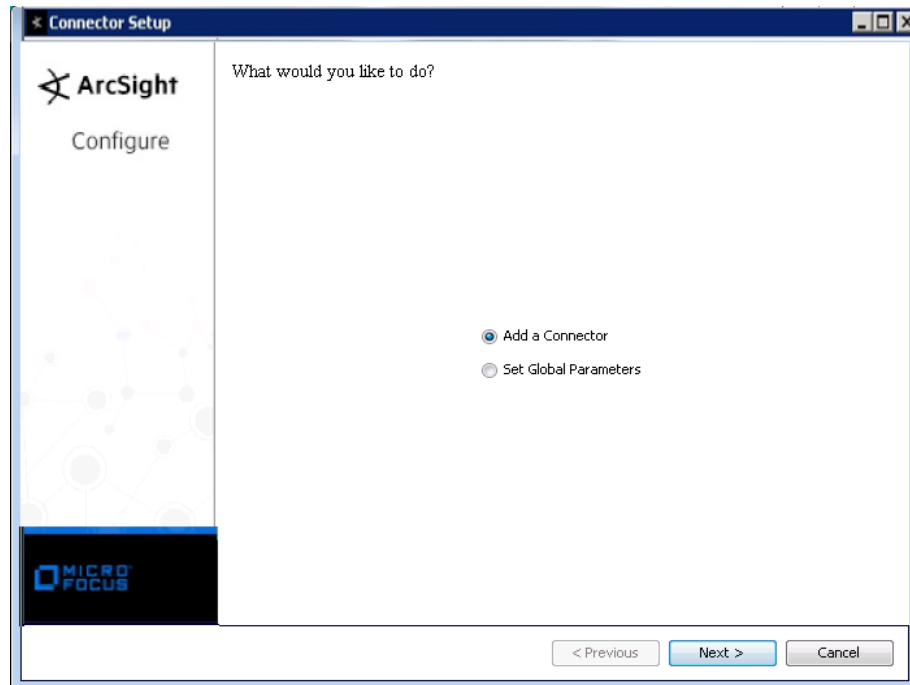
Unless specified otherwise at the beginning of this guide, this SmartConnector can be installed on all ArcSight supported platforms; for the complete list, see the *SmartConnector Product and Platform Support* document, available from the Micro Focus SSO and Protect 724 sites.

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

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:



## Download SQL Server JDBC Driver

To download a Microsoft SQL Server JDBC driver, click **Cancel** to leave the configuration wizard at this point and copy the jar file you downloaded earlier (see "Download and Install a JDBC Driver") to [\\$ARCSIGHT\\_HOME/current/user/agent/lib](#).

From [\\$ARCSIGHT\\_HOME/current/bin](#), double-click `runagentsetup` to return to the SmartConnector Configuration Wizard.

## 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:

| Parameter                       | Setting  |
|---------------------------------|--|
| FIPS mode                       | Select 'Enabled' 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 'Disabled'.  |
| Remote Management               | Select 'Enabled' 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 'Disabled'. |
| 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            | When 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. The initial setting is IPv4.                         |

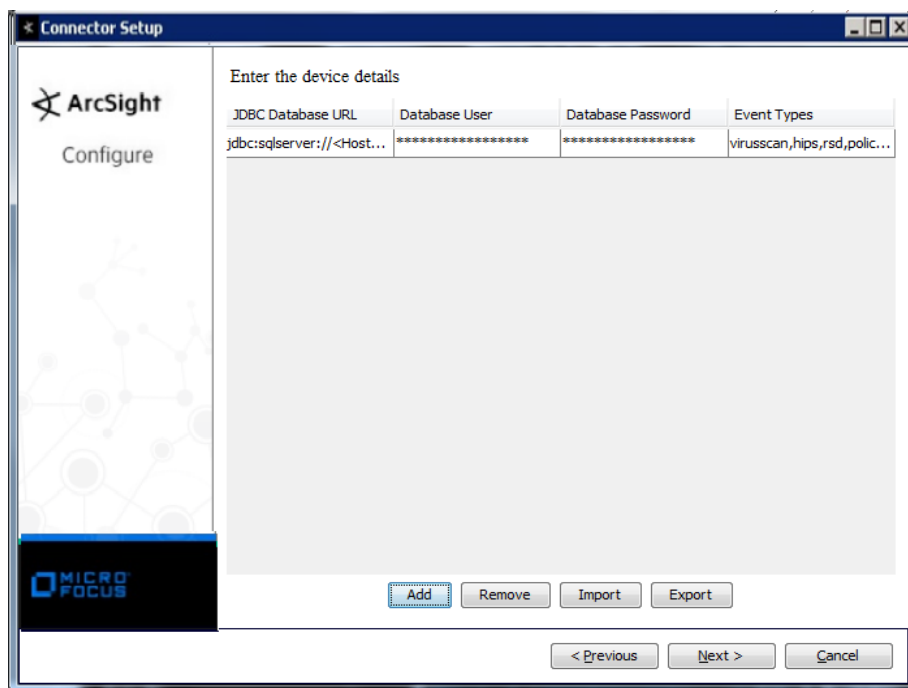
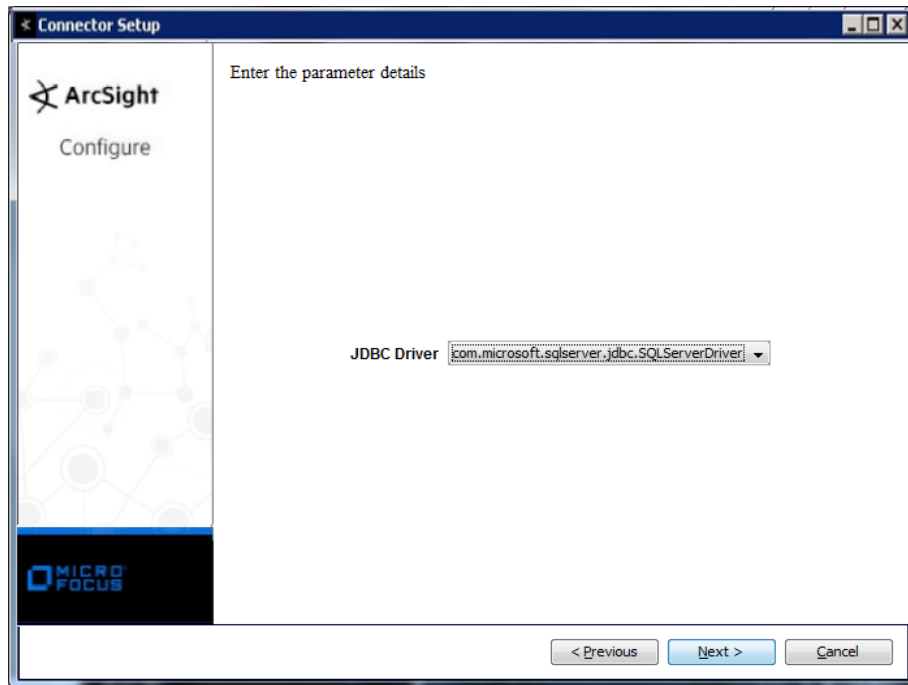
The following parameters should be configured only if you are using Micro Focus SecureData solutions to provide encryption. See the *Micro Focus SecureData Architecture Guide* for more information.

| Parameter                    | Setting  |
|------------------------------|--|
| Format Preserving Encryption | Data leaving the connector machine to a specified destination can be encrypted by selecting 'Enabled' to encrypt the fields identified in 'Event Fields to Encrypt' before forwarding events. If encryption is enabled, it cannot be disabled. Changing any of the encryption parameters again will require a fresh installation of the connector.   |
| Format Preserving Policy URL | Enter the URL where the Micro Focus SecureData Server is installed.  |
| Proxy Server (https)         | Enter the proxy host for https connection if any proxy is enabled for this machine.  |
| Proxy Port                   | Enter the proxy port for https connection if any proxy is enabled for this machine.  |
| Format Preserving Identity   | The Micro Focus SecureData client software allows client applications to protect and access data based on key names. This key name is referred to as the identity. Enter the user identity configured for Micro Focus SecureData.  |
| Format Preserving Secret     | Enter the secret configured for Micro Focus SecureData to use for encryption.  |
| Event Fields to Encrypt      | Recommended fields for encryption are listed; delete any fields you do not want encrypted and add any string or numeric fields you want encrypted. Encrypting more fields can affect performance, with 20 fields being the maximum recommended. Also, because encryption changes the value, rules or categorization could also be affected. Once encryption is enabled, the list of event fields cannot be edited. |

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 proceed with "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 **McAfee ePolicy Orchestrator DB** and click **Next**.
- 3 Enter the required SmartConnector parameters to configure the SmartConnector, then click **Next**.



You can click the 'Export' button to export the host name data you have entered into the table into a CSV file; you can click the 'Import' button to select a CSV file to import into the table rather than add the data manually. See the "SmartConnector User's Guide" for more information.

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

| Parameter            | Description   |
|----------------------|---|
| Database JDBC Driver | On the first parameter entry screen, select the 'com.microsoft.sqlserver.jdbc.SQLServerDriver' driver (shown in screen shot). Restart the connector setup after installing the JDBC driver. For more information, see "Download and Install a JDBC Driver" and "Add a JDBC Driver to the Connector Appliance/ArcSight Management Center".   |
| URL                  | <p>Click 'Add' on the next parameter entry screen to have the wizard display a table row with default values already entered.</p> <p>The following default value is shown for the JDBC driver: 'jdbc:sqlserver://&lt;MS SQL Server Host Name or IP Address&gt;:1433;DatabaseName=&lt;MS SQL Server Database Name&gt;'. Substitute actual values for &lt;MS SQL Server Host Name or IP Address&gt; and &lt;MS SQL Server Database Name&gt;.</p> <p>If you are configuring additional databases, click 'Add' each time you want to enter a new row for each new database or instance. Change the URL for the database driver and the other values as appropriate.</p> |
| User                 | Enter the login name of the database user with appropriate privilege.   |
| Password             | Enter the password assigned to the Database User.   |
| Event Types          | This field is used to select the event types to be processed. Enter an individual type or a comma-separated list. Remove any uninstalled components from the default list for this parameter as needed. See "Event Types" earlier in this guide for a list of event types.  |

## 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*.



When using Windows authentication, after completing the connector installation, if running on a Windows Server, change the service account to use the Windows account that should log in to the database. The connector will use the account used to start the service, regardless of the account value setting entered in the connector setup process.

## 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.

### Application and Change Control 7.0/8.0 Mappings with ePO 5.3/5.9

| ArcSight ESM Field         | Device-Specific Field                        |
|----------------------------|--|
| Additional data            | evt_error                                    |
| Additional data            | evt_file_sha1                                |
| Additional data            | evt_process_md5                              |
| Additional data            | evt_process_sha1                             |
| Agent (Connector) Severity | 0, 1, 2 = High; 3, 4 = Medium; 5, 6, 7 = Low |
| Destination Address        | targetip4                                    |
| Destination Host Name      | host_name                                    |
| Destination Mac Address    | targetmac                                    |
| Destination Port           | targetport                                   |
| Destination Process Name   | evt_prog_name                                |
| Device Action              | threatactiontaken                            |
| Device Custom Date 1       | detectedutc (Detect Time)                    |
| Device Custom Number 1     | tenantid (Tenant ID)                         |

| ArcSight ESM Field     | Device-Specific Field                   |
|------------------------|---|
| Device Custom Number 2 | managedstate (Managed State)            |
| Device Custom Number 3 | evt_reputation_score (Reputation Score) |
| Device Custom String 1 | analyzeripv6 (Device IPv6 Address)      |
| Device Custom String 2 | sourceipv6 (Source IPv6 Address)        |
| Device Custom String 3 | productid (Detecting Product ID)        |
| Device Custom String 4 | agentguid (Agent GUID)                  |
| Device Custom String 5 | targetipv6 (Destination IPv6 Address)   |
| Device Event Category  | threatcategory                          |
| Device Event Class ID  | threateventid                           |
| Device Host Name       | analyzerhostname                        |
| Device Mac Address     | analyzermac                             |
| Device Product         | 'SolidCore'                             |
| Device Receipt Time    | receivedutc                             |
| Device Severity        | threatseverity                          |
| Device Vendor          | 'McAfee'                                |
| Device Version         | Both ('solidcore', productversion)      |
| External ID            | autoid                                  |
| File Hash              | evt_file_md5                            |
| File Name              | evt_file_name                           |
| File Path              | evt_object                              |
| Message                | evt_display_key                         |
| Name                   | evt_display_key                         |
| Reason                 | evt_deny_reason                         |
| Request URL            | sourceurl                               |
| Source Address         | sourceipv4                              |
| Source Host Name       | sourcehostname                          |
| Source Mac Address     | sourcemac                               |
| Source Process Name    | sourceprocessname                       |
| Source User Name       | evt_user_name                           |
| Transport Protocol     | targetprotocol                          |

## Application and Change Control 6.1 Mappings with ePO 5.1

| ArcSight ESM Field           | Device-Specific Field                        |
|------------------------------|--|
| Agent (Connector) Severity   | High = 0, 1, 2; Medium = 3, 4; Low = 5, 6, 7 |
| Destination Address          | targetipv4                                   |
| Destination Host Name        | host_name                                    |
| Destination MAC Address      | targetmac                                    |
| Destination Port             | targetport                                   |
| Destination Process Name     | evt_prog_name                                |
| Device Action                | threatactiontaken                            |
| Device Custom Date 1         | detectedutc (Detect Time)                    |
| Device Custom IPv6 Address 1 | analyzeripv6 (Device IPv6 Address)           |
| Device Custom IPv6 Address 2 | sourceipv6 (Source IPv6 Address)             |



| ArcSight ESM Field           | Device-Specific Field                           |
|------------------------------|---|
| Device Custom IPv6 Address 3 | targetipv6 (Destination IPv6 Address)           |
| Device Custom Number 1       | tenantid  |
| Device Custom Number 2       | managedstate                                    |
| Device Custom String 3       | productid (Detecting Product ID)                |
| Device Custom String 4       | agentguid                                       |
| Device Event Category        | threatcategory                                  |
| Device Event Class ID        | threateventid                                   |
| Device Host Name             | analyzerhostname                                |
| Device MAC Address           | analyzermac                                     |
| Device Product               | 'SolidCore'                                     |
| Device Receipt Time          | receivedutc                                     |
| Device Severity              | threatseverity                                  |
| Device Vendor                | 'McAfee'  |
| Device Version               | All of ('solidcore', productversion, '/epo5.1') |
| External ID                  | autoid  |
| File Name                    | evt_file_name                                   |
| File Path                    | evt_object                                      |
| Name                         | evt_display_key                                 |
| Reason                       | evt_error                                       |
| Request URL                  | sourceurl                                       |
| Source Address               | sourceipv4                                      |
| Source Host Name             | sourcehostname                                  |
| Source MAC Address           | sourcemac                                       |
| Source Process Name          | sourceprocessname                               |
| Source User Name             | evt_user_name                                   |
| Transport Protocol           | targetprotocol                                  |

### Data Loss Prevention (DLP) Events with ePO 5.3

| ArcSight ESM Field           | Device-Specific Field                        |
|------------------------------|--|
| Agent (Connector) Severity   | 2, 1, 0 = High; 4, 3 = Medium; 5, 6, 7 = Low |
| Destination Address          | targetipaddress                              |
| Destination Host Name        | targethostname                               |
| Destination Mac Address      | targetmac                                    |
| Destination Port             | targetport                                   |
| Destination Process Name     | targetprocessname                            |
| Destination User Name        | targetusername                               |
| Device Action                | threataction                                 |
| Device Custom Date 1         | detecttime                                   |
| Device Custom IPv6 Address 2 | sourceIPv6                                   |
| Device Custom IPv6 Address 3 | targetIPv6                                   |
| Device Custom String 1       | threatname                                   |
| Device Custom String 2       | sourceIPv6                                   |
| Device Custom String 3       | targetIPv6                                   |

| ArcSight ESM Field     | Device-Specific Field                               |
|------------------------|---|
| Device Custom String 4 | detectingproductid                                  |
| Device Custom String 5 | agentguid   |
| Device Event Class ID  | threateventid                                       |
| Device Host Name       | producthostname                                     |
| Device Mac Address     | productmac  |
| Device Product         | 'ePolicy Orchestrator'                              |
| Device Receipt Time    | receivedtime  |
| Device Severity        | threatseverity                                      |
| Device Vendor          | 'McAfee'  |
| Device Version         | Both ('dlp', productversion)                        |
| External ID            | autoid  |
| File Path              | One of (sourceurl, targetfilename)                  |
| Message                | All of ('Threat:', one of (threatname, threattype)) |
| Name                   | All of ('Threat:', one of (threatname, threattype)) |
| Request URL            | sourceurl   |
| Source Address         | sourceaddress                                       |
| Source Host Name       | sourcehostname                                      |
| Source Mac Address     | sourcemac   |
| Source Process Name    | sourceprocessname                                   |
| Source User Name       | sourceusername                                      |
| Transport Protocol     | targetprotocol                                      |

### DLP Administrative Events with ePO 5.3

| ArcSight ESM Field         | Device-Specific Field                                       |
|----------------------------|---|
| Agent (Connector) Severity | Critical, Major = High; Minor, Warning = Medium; Info = Low |
| Device Custom Date 1       | UTCTime (Local Time)  |
| Device Custom String 1     | PolicyName  |
| Device Custom String 3     | PolicyRevision  |
| Device Custom String 5     | PolicyUid   |
| Device Custom String 6     | UserGroups  |
| Device Product             | 'Data Loss Prevention'                                      |
| Device Receipt Time        | EndpointTime  |
| Device Severity            | Severity (0=Info, 1=Warning, 2=Minor, 3=Major, 4=Critical)  |
| Device Vendor              | 'McAfee'  |
| Device Version             | Both ('dlp', AgentVersion)                                  |
| End Time                   | InsertionTime   |
| External ID                | EventType   |
| Source Address             | IP  |
| Source FQDN                | FQDN  |
| Source Host Name           | Name  |
| Source NT Domain           | Username_NTLM   |
| Source User ID             | One of (SID, UID)   |

| ArcSight ESM Field | Device-Specific Field |
|--------------------|-----------------------|
| Source User Name   | Username_NTLM         |

### DLP Administrative 402 Evidence Replication Failed Events with ePO 5.3

| ArcSight ESM Field | Device-Specific Field  |
|--------------------|------------------------|
| Reason             | ReplicationFailedError |

### DLP Administrative 405 Release Code Locked Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field |
|------------------------|-----------------------|
| Device Custom Number 2 | ReleaseCodeAttempts   |
| Device Custom Number 3 | ReleaseCodeDuration   |

### DLP Discover Events with ePO 5.3

| ArcSight ESM Field         | Device-Specific Field                                       |
|----------------------------|---|
| Agent (Connector) Severity | Critical, Major = High; Minor, Warning = Medium; Info = Low |
| Bytes In                   | TotalContentSize  |
| Device Action              | ActualAction (0=No action, 1=Block)                         |
| Device Custom Date 1       | ViolationUTCTime (Violation Time)                           |
| Device Custom Number 1     | EvidenceCount   |
| Device Custom String 1     | RulesToDisplay  |
| Device Custom String 3     | PolicyRevision  |
| Device Custom String 4     | FileName  |
| Device Product             | 'Data Loss Prevention'                                      |
| Device Receipt Time        | ViolationLocalTime  |
| Device Severity            | Severity (0=Info, 1=Warning, 2=Minor, 3=Major, 4=Critical)  |
| Device Vendor              | 'McAfee'  |
| Device Version             | Both ('dlp', DlpAgentVersion)                               |
| End Time                   | InsertionTime   |
| External ID                | IncidentType  |
| File Name                  | FileName  |
| File Path                  | FilePath  |
| File Size                  | FileSize  |
| File Type                  | FileType  |
| Reason                     | FailureReason   |
| Source Address             | IP  |
| Source FQDN                | FQDN  |
| Source Host Name           | Name  |
| Source NT Domain           | Username_NTLM   |
| Source User ID             | One of (SID, UID)   |
| Source User Name           | Username_NTLM   |

## DLP Incident Events with ePO 5.3

| ArcSight ESM Field         | Device-Specific Field                                       |
|----------------------------|---|
| Agent (Connector) Severity | Critical, Major = High; Minor, Warning = Medium; Info = Low |
| Bytes In                   | TotalContentSize  |
| Destination Process Name   | destination   |
| Device Action              | ActualAction (0=No action, 1=Block)                         |
| Device Custom Date 1       | ViolationUTCTime (Violation Time)                           |
| Device Custom Number 1     | EvidenceCount   |
| Device Custom String 1     | RulesToDisplay (Rule Name)                                  |
| Device Custom String 3     | PolicyRevision  |
| Device Custom String 4     | FileName (Evidence Value)                                   |
| Device Product             | 'Data Loss Prevention'                                      |
| Device Receipt Time        | ViolationLocalTime  |
| Device Severity            | Severity (0=Info, 1=Warning, 2=Minor, 3=Major, 4=Critical)  |
| Device Vendor              | 'McAfee'  |
| Device Version             | Both ('dlp', DlpAgentVersion)                               |
| End Time                   | InsertionTime   |
| External ID                | IncidentType  |
| File Name                  | FileName  |
| File Path                  | FilePath  |
| File Size                  | FileSize  |
| File Type                  | FileType  |
| Reason                     | FailureReason   |
| Source Address             | IP  |
| Source FQDN                | FQDN  |
| Source Host Name           | Name  |
| Source NT Domain           | Username_NTLM   |
| Source Process Name        | ApplicationFileName   |
| Source User ID             | One of (SID, UID)   |
| Source User Name           | Username_NTLM   |

## DLP Incident 10000 Removable Storage Protection Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field  |
|------------------------|--|
| Device Custom Date2    | PluginLocalTime  |
| Device Custom Number2  | FileSystemAccess   |
| Device Custom Number3  | DeviceFileSystemType   |
| Device Custom String 4 | Both ('DeviceName:', DeviceName, 'DeviceDescription:', DeviceDescription, 'USBVendorId:', USBVendorId, 'USBProductId:', USBProductId, 'USBSerialNumber:', USBSerialNumber) |
| Device Custom String6  | VolumeSerialNumber   |
| File Id                | Both('Device Class GUID:', DeviceClassGUID)  |
| Old File Id            | Both('Device InstanceID:', DeviceInstanceID)   |

| ArcSight ESM Field  | Device-Specific Field                            |
|---------------------|--|
| Old File Name       | Both('VolumeLabel:',VolumeLabel)                 |
| Old File Path       | Both('Unplugged Time:',UnpluggedLocalTime)       |
| Old File Permission | Both('Device Compatible ID:',DeviceCompatibleID) |
| Old File Type       | Both('Bus Type:',BusType)                        |

### DLP Incident 40101 Network File System Protection Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field |
|------------------------|-----------------------|
| Device Custom String 5 | DestinationPath       |

### DLP Incident 40102 Removable Storage Protection Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field   |
|------------------------|---|
| Device Custom Date 2   | PluginLocalTime   |
| Device Custom Number 3 | DeviceFileSystemType  |
| Device Custom String 2 | SourcePath  |
| Device Custom String 4 | Both ('DeviceName:', DeviceName, 'DeviceDescription:', DeviceDescription, 'USBVendorId:', USBVendorId, 'USBProductId:', USBProductId, 'USBSerialNumber:', USBSerialNumber ) |
| Device Custom String 5 | DestPath  |
| Device Custom String 6 | VolumeSerialNumber  |
| File Id                | Both('Device Class GUID:',DeviceClassGUID)  |
| Old File Id            | Both('DeviceInstanceId:',DeviceInstanceId)  |
| Old File Name          | Both('VolumeLabel:',VolumeLabel)  |
| Old File Path          | Both('Unplugged Time:',UnpluggedLocalTime)  |
| Old File Permission    | Both('Device Compatible ID:',DeviceCompatibleID)  |
| Old File Type          | Both('Bus Type:',BusType)   |

### DLP Incident 40200 Email Protection Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field  |
|------------------------|--|
| Device Custom String 2 | Sender   |
| Device Custom String 5 | All of ('Recipients:', Recipients, 'Recipients Cc:', RecipientsCc, 'Recipients Bcc:', RecipientsBcc) |
| Device Custom String 6 | Subject  |

### DLP Incident 40301 Printing Protection Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field |
|------------------------|-----------------------|
| Device Custom String 2 | PrinterName           |

### DLP Incident 40400 Network Protection Events with ePO 5.3

| ArcSight ESM Field | Device-Specific Field |
|--------------------|-----------------------|
|--------------------|-----------------------|

| ArcSight ESM Field  | Device-Specific Field                       |
|---------------------|---|
| Destination Address | DestIP                                      |
| Destination Port    | DestPort                                    |
| Device Direction    | ConnectionDirection (0=Inbound, 1=Outbound) |
| Source Port         | SourcePort                                  |

### DLP Incident 40500 Web Post Protection Events with ePO 5.3

| ArcSight ESM Field | Device-Specific Field |
|--------------------|-----------------------|
| Request URL        | DestinationURL        |

### DLP Incident 40601 Application File Access Protection Events with 3PO 5.3

| ArcSight ESM Field | Device-Specific Field |
|--------------------|-----------------------|
| Source Process ID  | ProcessId             |

### DLP Incident 40603 Screen Capture Protection Events with ePO 5.3

| ArcSight ESM Field     | Device-Specific Field |
|------------------------|-----------------------|
| Device Custom String 2 | VisibleApplications   |

### DLP Incident 40700 Cloud Protection Events with ePO 5.3

| ArcSight ESM Field       | Device-Specific Field |
|--------------------------|-----------------------|
| Destination Service Name | CloudService          |

### Drive Encryption 7.1 SP3 and 7.2.3 Mappings with ePO 5.3/5.9

| ArcSight ESM Field           | Device-Specific Field                           |
|------------------------------|---|
| Agent (Connector) Severity   | 4 = Very High; 3 = High; 1, 2 = Medium; 0 = Low |
| Destination Host Name        | HostName  |
| Destination User Name        | UserName  |
| Device Action                | Type  |
| Device Custom Date 1         | Generated Time (Detected Time)                  |
| Device Custom IPv6 Address 3 | IPV6 (Destination IPv6 Address)                 |
| Device Custom Number 1       | ManagedState (Managed State)                    |
| Device Custom Number 2       | Error (Error Code)                              |
| Device Custom String 3       | SiteName (Site Name)                            |
| Device Custom String 4       | ProductCode (Product Code)                      |
| Device Custom String 5       | AgentGUID (Agent GUID)                          |
| Device Event Class ID        | Both (EventID, Severity)                        |
| Device Product               | 'Drive Encryption'                              |
| Device Receipt Time          | ReceivedTime                                    |
| Device Severity              | Severity  |

| ArcSight ESM Field | Device-Specific Field                                |
|--------------------|--|
| Device Vendor      | 'McAfee'   |
| Device Version     | One of (Version, both ('Drive Encryption', Version)) |
| External ID        | AutoID   |
| Message            | Description  |
| Name               | Name   |

## Data Exchange Layer Mappings with ePO 5.3 to Data Exchange Layer Mappings with ePO 5.3/ePO 5.9

| ArcSight ESM Field           | Device-Specific Field                                   |
|------------------------------|---|
| Agent (Connector) Severity   | 4 = Very High; 3 = High; 1, 2 = Medium; 0 = Low         |
| Destination Host Name        | HostName  |
| Destination User Name        | UserName  |
| Device Action                | Type  |
| Device Custom Date 1         | Generated Time (Detected Time)                          |
| Device Custom IPv6 Address 3 | IPV6 (Destination IPv6 Address)                         |
| Device Custom Number 1       | ManagedState (Managed State)                            |
| Device Custom Number 2       | TenantId (Tenant Id)                                    |
| Device Custom String 1       | FamilyDispName (Product Family)                         |
| Device Custom String 2       | Tags (Tags)   |
| Device Custom String 3       | AgentPlatform (Agent Platform)                          |
| Device Custom String 5       | AgentGUID (Agent GUID)                                  |
| Device Custom String 6       | AgentVersion (Agent Version)                            |
| Device Event Class ID        | EventID   |
| Device Facility              | SiteName  |
| Device Product               | 'Data Exchange Layer'                                   |
| Device Receipt Time          | ReceivedTime  |
| Device Severity              | Severity  |
| Device Vendor                | 'McAfee'  |
| Device Version               | One of (both ('Data Exchange Layer', Version), Unknown) |
| External ID                  | AutoID  |
| Message                      | Description   |
| Name                         | Name  |
| Reason                       | Error   |

## Endpoint Security (ENS) Events with ePO 5.3/5.9

| ArcSight ESM Field         | Device-Specific Field                        |
|----------------------------|--|
| Agent (Connector) Severity | 2, 1, 0 = High; 4, 3 = Medium; 5, 6, 7 = Low |
| Destination Address        | IPv4   |
| Destination Host Name      | HostName                                     |
| Destination MAC Address    | MAC  |
| Destination Port           | PortNumber                                   |
| Destination Process Name   | DestProcessName                              |

| ArcSight ESM Field           | Device-Specific Field                  |
|------------------------------|--|
| Destination User Name        | UserName                               |
| Device Action                | ThreatAction                           |
| Device Custom Date 1         | GeneratedTime (Generated Time)         |
| Device Custom IPv6 Address 2 | ThreatSourceIPv6 (Source IPv6 Address) |
| Device Custom IPv6 Address 3 | IPv6 (Destination IPv6 Address)        |
| Device Custom String 1       | ThreatName                             |
| Device Custom String 2       | FamilyName                             |
| Device Custom String 3       | Name (Event Name)                      |
| Device Custom String 4       | DetectingProductID                     |
| Device Custom String 5       | AgentGUID                              |
| Device Custom String 6       | ThreatType                             |
| Device Event Category        | ThreatCategory                         |
| Device Event Class ID        | Both (ThreadEventID, Name)             |
| Device Host Name             | DetectingProductHostName               |
| Device MAC Address           | DetectingProductMAC                    |
| Device Product               | 'Endpoint Security'                    |
| Device Receipt Time          | ReceivedTime                           |
| Device Severity              | ThreatSeverity                         |
| Device Vendor                | 'McAfee'                               |
| Device Version               | Both ('ENS', DetectingProductVersion)  |
| External ID                  | ThreatEventID                          |
| File Path                    | One of (ThreatSourceURL, FilePath)     |
| File Type                    | Both ('_DB_NAME:', '_DB_NAME')         |
| Message                      | Description                            |
| Name                         | Name                                   |
| Old File Path                | ThreatSourceFilePath                   |
| Request URL                  | ThreatSourceURL                        |
| Source Address               | ThreatSourceIPv4                       |
| Source Host Name             | ThreatSourceHostName                   |
| Source MAC Address           | ThreatSourceMAC                        |
| Source Process Name          | ThreatSourceProcessName                |
| Source User Name             | ThreatSourceUserName                   |
| Transport Protocol           | NetworkProtocol                        |

## HIPS 8.0 Events with ePO 5.9

| ArcSight ESM Field         | Device-Specific Field  |
|----------------------------|--|
| Additional data            | DetectingProductIPv6   |
| Agent (Connector) Severity | High = Device Severity 2, 1, 0; Medium = Device Severity 4, 3; Low = Device Severity 5, 6, 7 |
| Destination Address        | One of (Local IP Address, IPv4)  |
| Destination Host Name      | HostName   |
| Destination Mac Address    | MAC  |
| Destination Port           | One of (PortNumber, RemotePort)  |



| ArcSight ESM Field           | Device-Specific Field  |
|------------------------------|--|
| Destination User Name        | UserName   |
| Device Action                | ThreatAction (Blocked, Permitted, or Block)                                |
| Device Custom Date 1         | GeneratedTime  |
| Device Custom IPv6 Address 1 | LocalIPAddress   |
| Device Custom IPv6 Address 2 | ThreatSourceIPv6 (Source IPv6 Address)                                     |
| Device Custom IPv6 Address 3 | IPv6   |
| Device Custom Number 1       | Signature  |
| Device Custom Number 2       | EventPolicyType  |
| Device Custom String 1       | ThreatName   |
| Device Custom String 2       | ThreatSourceIPv6   |
| Device Custom String 3       | IPv6 (Target IPv6)   |
| Device Custom String 4       | DetectingProductID   |
| Device Custom String 5       | AgentGUID  |
| Device Custom String 6       | AppVersion   |
| Device Direction             | Direction  |
| Device Event Category        | One of ('ThreatNameIsSignature', ThreatCategory, ThreatType)               |
| Device Event Class ID        | One of (SignatureID, ThreatEventID, both (ThreatCategory, ThreatType))     |
| Device Host Name             | DetectingProductHostName   |
| Device MAC Address           | DetectingProductMAC  |
| Device Product               | DetectingProductName   |
| Device Receipt Time          | ReceivedTime   |
| Device Severity              | ThreatSeverity (0 – 7)   |
| Device Vendor                | 'McAfee'   |
| Device Version               | All of ('hips', DetectingProductVersion)                                   |
| External ID                  | ThreatEventID  |
| File Hash                    | Both ('AppHash:', AppHash)   |
| File Name                    | Both ('AppDesc:', AppDesc)   |
| File Path                    | One of (files, ThreatSourceURL, FilePath)                                  |
| File Permission              | Both ('AppSigner:', AppSigner)   |
| File Type                    | SigRuleClass   |
| Message                      | One of (both (ThreatName, 'Blocked'), both ('Threat', ThreatName))         |
| Name                         | One of (SignatureName, 'Application Blocked', both ('Threat', ThreatName)) |
| Old File ID                  | Both ('EventID', EventID)  |
| Old File Name                | Both ('DestinationFile:', DestinationFile)                                 |
| Old File Path                | Both ('Files:', Files)   |
| Old File Permission          | Both ('EventUserName:', EventUserName)                                     |
| Request URL                  | ThreatSourceURL  |
| Source Address               | ThreatSourceIPv4   |
| Source Host Name             | ThreatSourceHostName   |
| Source Mac Address           | ThreatSourceMAC  |
| Source Port                  | LocalPort  |
| Source Process Name          | ThreatSourceProcessName  |
| Source User Name             | ThreatSourceUserName   |

| ArcSight ESM Field | Device-Specific Field              |
|--------------------|------------------------------------|
| Transport Protocol | One of (NetworkProtocol, Protocol) |

## HIPS 8.0 Events with ePO 5.1/5.3

| ArcSight ESM Field           | Device-Specific Field  |
|------------------------------|--|
| Additional data              | DetectingProductIPv6   |
| Agent (Connector) Severity   | High = Device Severity 2, 1, 0; Medium = Device Severity 4, 3; Low = Device Severity 5, 6, 7 |
| Destination Address          | One of (Local IP Address, IPv4)  |
| Destination Host Name        | HostName   |
| Destination Mac Address      | MAC  |
| Destination Port             | One of (PortNumber, RemotePort)  |
| Destination User Name        | UserName   |
| Device Action                | ThreatAction (Blocked, Permitted, or Block)  |
| Device Custom Date 1         | GeneratedTime  |
| Device Custom IPv6 Address 1 | LocalIPv6Address   |
| Device Custom IPv6 Address 2 | ThreatSourceIPv6 (Source IPv6 Address)   |
| Device Custom IPv6 Address 3 | IPv6   |
| Device Custom Number 1       | Signature  |
| Device Custom Number 2       | EventPolicyType  |
| Device Custom String 1       | ThreatName   |
| Device Custom String 2       | ThreatSourceIPv6   |
| Device Custom String 3       | IPv6 (Target IPv6)   |
| Device Custom String 4       | DetectingProductID   |
| Device Custom String 5       | AgentGUID  |
| Device Custom String 6       | AppVersion   |
| Device Direction             | Direction  |
| Device Event Category        | One of ('ThreatNameSignature', ThreatCategory, ThreatType)                                   |
| Device Event Class ID        | One of (SignatureID, ThreatEventID, both (ThreatCategory, ThreatType))                       |
| Device Host Name             | DetectingProductHostName   |
| Device MAC Address           | DetectingProductMAC  |
| Device Product               | DetectingProductName   |
| Device Receipt Time          | ReceivedTime   |
| Device Severity              | ThreatSeverity (0 – 7)   |
| Device Vendor                | 'McAfee'   |
| Device Version               | All of ('hips', DetectingProductVersion)   |
| External ID                  | ThreatEventID  |
| File Hash                    | Both ('AppHash:', AppHash)   |
| File Name                    | Both ('AppDesc:', AppDesc)   |
| File Path                    | One of (files, ThreatSourceURL, FilePath)  |
| File Permission              | Both ('AppSigner:', AppSigner)   |
| File Type                    | SigRuleClass   |
| Message                      | One of (both (ThreatName, 'Blocked'), both ('Threat', ThreatName))                           |

| <b>ArcSight ESM Field</b> | <b>Device-Specific Field</b>   |
|---------------------------|--|
| Name                      | One of (SignatureName, 'Application Blocked', both ('Threat', ThreatName)) |
| Old File ID               | Both ('EventID', EventID)  |
| Old File Permission       | Both ('EventUserName:', EventUserName)                                     |
| Request URL               | ThreatSourceURL  |
| Source Address            | ThreatSourceIPv4   |
| Source Host Name          | ThreatSourceHostName   |
| Source Mac Address        | ThreatSourceMAC  |
| Source Port               | LocalPort  |
| Source Process Name       | ThreatSourceProcessName  |
| Source User Name          | ThreatSourceUserName   |
| Transport Protocol        | One of (NetworkProtocol, Protocol)   |

### MOVE 3.0/3.6/4.5.1 Mappings with ePO 5.1/5.3/5.9

| <b>ArcSight ESM Field</b>    | <b>Device-Specific Field</b>   |
|------------------------------|--|
| Agent (Connector) Severity   | Very High = Critical; High = High, Major; Medium = Warning, Medium; Low = Informational, Info, Low |
| Destination Address          | IPv4   |
| Destination Host Name        | HostName   |
| Destination MAC Address      | MAC  |
| Destination Port             | PortNumber   |
| Destination Process Name     | ProcessName  |
| Destination User Name        | UserName   |
| Device Action                | ThreatAction   |
| Device Custom Date 1         | GeneratedTime (Detected Time)  |
| Device Custom IPv6 Address 1 | DetectingProductIPv6 (Device IPv6 Address)   |
| Device Custom IPv6 Address 2 | ThreatSourceIPv6 (Source IPv6 Address)   |
| Device Custom IPv6 Address 3 | IPv6 (Destination IPv6 Address)  |
| Device Custom Number 2       | ManagedState   |
| Device Custom String 1       | ThreatName   |
| Device Custom String 4       | DetectingProductID   |
| Device Custom String 5       | AgentGUID  |
| Device Event Category        | ThreatCategory   |
| Device Event Class ID        | ThreatEventID  |
| Device Host Name             | DetectingProductHostName   |
| Device MAC Address           | DetectingProductMAC  |
| Device Product               | 'MOVE Antivirus'   |
| Device Receipt Time          | ReceivedTime   |
| Device Vendor                | 'McAfee'   |
| Device Version               | Both (DetectingProductName, DetectingProductVersion)   |
| External ID                  | AutoID   |
| File Name                    | FileName   |
| File Type                    | ThreatType   |
| Message                      | ThreatType   |

| ArcSight ESM Field  | Device-Specific Field                |
|---------------------|--------------------------------------|
| Name                | Message (dependent on ThreatEventID) |
| Request URL         | ThreatSourceURL                      |
| Source Address      | ThreatSourceIPv4                     |
| Source Host Name    | ThreatSourceHostName                 |
| Source MAC Address  | ThreatSourceMAC                      |
| Source Process Name | ThreatSourceProcessName              |
| Source User Name    | ThreatSourceUserName                 |
| Transport Protocol  | NetworkProtocol                      |

## MSME 8.0 and 8.5 with ePO 5.1/5.3/5.9

| ArcSight ESM Field           | Device-Specific Field                                 |
|------------------------------|---|
| Agent (Connector) Severity   | High = 2, 1, 0; Medium = 4, 3; Low = 5, 6, 7          |
| Destination Address          | IPv4  |
| Destination Host Name        | HostName  |
| Destination Mac Address      | MAC   |
| Destination Port             | PortNumber  |
| Destination Process Name     | ProcessName   |
| Destination User Name        | UserName  |
| Device Action                | ThreatAction  |
| Device Custom Date 1         | GeneratedTime   |
| Device Custom IPv6 Address 1 | DetectingProductIPv6 (Device IPv6 Address)            |
| Device Custom IPv6 Address 2 | ThreatSourceIPv6 (Source IPv6 Address)                |
| Device Custom IPv6 Address 3 | IPv6 (Destination IPv6 Address)                       |
| Device Custom Number 2       | ManagedState  |
| Device Custom String 1       | ThreatName  |
| Device Custom String 4       | DetectingProductID (Detecting Product ID)             |
| Device Custom String 5       | AgentGUID (Agent GUID)                                |
| Device Event Category        | ThreatCategory  |
| Device Event Class ID        | ThreatEventID   |
| Device Host Name             | DetectingProductHostName                              |
| Device Mac Address           | DetectingProductMAC                                   |
| Device Product               | 'MSME'  |
| Device Receipt Time          | ReceivedTime  |
| Device Severity              | ThreatSeverity  |
| Device Vendor                | 'McAfee'  |
| Device Version               | ('msme',' ', DetectingProductVersion)                 |
| External ID                  | AutoID  |
| File Name                    | FileName  |
| Message                      | Both ('Threat:', ThreatType)                          |
| Name                         | Both ('Threat:', one of(ThreatName,'On Demand Scan')) |
| Request URL                  | ThreatSourceURL                                       |
| Source Address               | ThreatSourceIPv4                                      |
| Source Host Name             | ThreatSourceHostName                                  |

| ArcSight ESM Field  | Device-Specific Field   |
|---------------------|-------------------------|
| Source Mac Address  | ThreatSourceMAC         |
| Source Process Name | ThreatSourceProcessName |
| Source User Name    | ThreatSourceUserName    |
| Transport Protocol  | NetworkProtocol         |

### Orion Audit Log 5.1 Mappings with ePO DB 5.1/5.3

| ArcSight ESM Field         | Device-Specific Field                        |
|----------------------------|--|
| Agent (Connector) Severity | High = 1, 5; Medium = 2, 6; Low = 3, 4, 7, 8 |
| Destination Address        | RemoteAddress                                |
| Destination User ID        | UserID                                       |
| Destination User Name      | UserName                                     |
| Device Custom Number 1     | TenantId                                     |
| Device Event Class ID      | CmdName                                      |
| Device Product             | 'ePolicy Orchestrator'                       |
| Device Severity            | Priority                                     |
| Device Vendor              | 'McAfee'                                     |
| End Time                   | EndTime                                      |
| Event Outcome              | One of (Success, '1', 'Success', 'Failed')   |
| External ID                | AutoID                                       |
| Message                    | Message                                      |
| Name                       | CmdName                                      |
| Start Time                 | StartTime                                    |

### Policy Auditor File 6.2 with ePO 5.1/5.3

| ArcSight ESM Field      | Device-Specific Field  |
|-------------------------|------------------------|
| Destination Address     | HostIP                 |
| Destination Host Name   | HostName               |
| Destination Mac Address | MAC                    |
| Destination User ID     | AcceptedByUserID       |
| Destination User Name   | FileOwner              |
| Device Address          | HostIP                 |
| Device Custom Date 1    | AcceptedTime           |
| Device Custom Date 2    | BaselineDate           |
| Device Custom Number 1  | FVID                   |
| Device Custom Number 2  | TenantID               |
| Device Custom Number 3  | ManagedState           |
| Device Custom String 2  | SystemID               |
| Device Custom String 3  | UsersSHA1Hash          |
| Device Custom String 4  | IsBaseline             |
| Device Custom String 6  | FileGroup (Group Name) |
| Device Domain           | Domain                 |
| Device Event Category   | 'PAFile'               |

| ArcSight ESM Field     | Device-Specific Field                    |
|------------------------|--|
| Device Event Class ID  | Type                                     |
| Device Host Name       | HostName                                 |
| Device Mac Address     | MAC                                      |
| Device Product         | 'Policy Auditor'                         |
| Device Receipt Time    | ReportedTime                             |
| Device Time Zone       | TimeZone                                 |
| Device Vendor          | 'McAfee'                                 |
| Device Version         | 'Unknown'                                |
| File Create Time       | CreatedTime                              |
| File Hash              | One of (SHA2, fileMD5Hash, fileSHA1Hash) |
| File Modification Time | ModifiedTime                             |
| File Name              | filePath                                 |
| File Path              | filePath                                 |
| File Size              | Size                                     |
| File Type              | filePath                                 |
| Name                   | Type                                     |
| Reason                 | ErrorCode                                |

### Policy Auditor File 6.2.2/6.3 with ePO 5.9

| ArcSight ESM Field      | Device-Specific Field  |
|-------------------------|------------------------|
| Destination Address     | HostIP                 |
| Destination Host Name   | HostName               |
| Destination Mac Address | MAC                    |
| Destination User ID     | AcceptedByUserID       |
| Destination User Name   | FileOwner              |
| Device Address          | HostIP                 |
| Device Custom Date 1    | AcceptedTime           |
| Device Custom Date 2    | BaselineDate           |
| Device Custom Number 1  | FVID                   |
| Device Custom Number 2  | TenantID               |
| Device Custom Number 3  | ManagedState           |
| Device Custom String 2  | SystemID               |
| Device Custom String 3  | UsersSHA1Hash          |
| Device Custom String 4  | IsBaseline             |
| Device Custom String 6  | FileGroup (Group Name) |
| Device Domain           | Domain                 |
| Device Event Category   | 'PAFile'               |
| Device Event Class ID   | Type                   |
| Device Host Name        | HostName               |
| Device Mac Address      | MAC                    |
| Device Product          | 'Policy Auditor'       |
| Device Receipt Time     | ReportedTime           |
| Device Time Zone        | TimeZone               |

| ArcSight ESM Field     | Device-Specific Field                   |
|------------------------|---|
| Device Vendor          | 'McAfee'                                |
| Device Version         | 'Unknown'                               |
| File Create Time       | CreatedTime                             |
| File Hash              | One of(SHA2, fileMD5Hash, fileSHA1Hash) |
| File Modification Time | ModifiedTime                            |
| File Name              | filePath                                |
| File Path              | filePath                                |
| File Size              | Size                                    |
| File Type              | filePath                                |
| Name                   | Type                                    |
| Old File Name          |   |
| Reason                 | ErrorCode                               |

### Policy Auditor Rule 6.2 with ePO 5.1/5.3 and Policy Auditor Rule 6.2.2/6.3 with ePO5.9

| ArcSight ESM Field         | Device-Specific Field   |
|----------------------------|---|
| Agent (Connector) Severity | Critical = Very High;' Important = High; Moderate = Medium; Low = Low |
| Destination Address        | HostIP  |
| Destination Host Name      | SystemName  |
| Destination MAC Address    | MAC   |
| Device Address             | HostIP  |
| Device Custom Date 1       | VendorPublicationDate   |
| Device Custom Number 1     | TenantID  |
| Device Custom Number 2     | ManagedState  |
| Device Custom String 1     | ClassType   |
| Device Custom String 2     | CheckID   |
| Device Custom String 3     | CheckVersion  |
| Device Custom String 4     | RuleID  |
| Device Custom String 5     | Both (BenchmarkIDk, BenchmarkVersion)                                 |
| Device Custom String 6     | AuditName   |
| Device Domain              | Domain  |
| Device Event Class ID      | Both (ClassType, RuleResult)  |
| Device Host Name           | HostName  |
| Device MAC Address         | MAC   |
| Device Product             | 'Policy Auditor'  |
| Device Receipt Time        | EndTime   |
| Device Severity            | VendorSeverity  |
| Device Time Zone           | TimeZone  |
| Device Vendor              | 'McAfee'  |
| Device Version             | 'Unknown'   |
| Event Outcome              | RuleResult  |
| Message                    | CheckDescription  |

| ArcSight ESM Field | Device-Specific Field |
|--------------------|-----------------------|
| Name               | Title                 |

### RSD 4.7/5.0 Events with ePO 5.1/5.3/5.9

| ArcSight ESM Field           | Device-Specific Field          |
|------------------------------|--------------------------------|
| Destination Address          | IPv4                           |
| Destination DNS Domain       | DnsName                        |
| Destination Host Name        | HostName                       |
| Destination Mac Address      | MAC                            |
| Destination NT Domain        | Domain                         |
| Device Action                | Device Action                  |
| Device Custom Date 1         | Start Recorded Time            |
| Device Custom Date 2         | End Recorded Time              |
| Device Custom IPv6 Address 3 | IPv6                           |
| Device Custom String 3       | IPV6                           |
| Device Custom String 4       | All of (OS, OSFamily, OSVer)   |
| Device Custom String 6       | SourceType                     |
| Device Event Class ID        | 'Detected Rogue System by RSD' |
| Device Product               | 'Rogue System Sensor'          |
| Device Receipt Time          | Start Time                     |
| Device Vendor                | 'McAfee'                       |
| Device Version               | 'Unknown'                      |
| End Time                     | End Time                       |
| Name                         | 'Rogue System'                 |
| Start Time                   | Start Time                     |

### SiteAdvisor Enterprise 3.5/3.5.5 Mappings with ePO 5.1/5.3/5.9

| ArcSight ESM Field         | Device-Specific Field                  |
|----------------------------|--|
| Agent (Connector) Severity | High = 3; Medium = 2; Low = 1, 4, 5, 6 |
| Destination NT Domain      | domainName                             |
| Device Action              | actionName                             |
| Device Custom Number 1     | eventCount                             |
| Device Custom Number 2     | contentId                              |
| Device Custom String 2     | listType                               |
| Device Custom String 3     | ratingName                             |
| Device Custom String 4     | observerMode (0=off, 1=on)             |
| Device Custom String 5     | agentGUID                              |
| Device Event Class ID      | Both (EventTypeId, eventName)          |
| Device Product             | 'SiteAdvisor Enterprise'               |
| Device Receipt Time        | detectedTime                           |
| Device Severity            | ratingId                               |
| Device Vendor              | 'McAfee'                               |
| Device Version             | 'Unknown'                              |



| ArcSight ESM Field | Device-Specific Field |
|--------------------|-----------------------|
| External ID        | autold                |
| Message            | reasonType            |
| Name               | eventName             |
| Request URL        | url                   |
| Source NT Domain   | userId                |
| Source User Id     | userId                |
| Source User Name   | userName              |

### TIE\_SERVER 2.1 Events with ePO 5.3

| ArcSight ESM Field          | Device-Specific Field                        |
|-----------------------------|--|
| Destination Host Name       | HostName                                     |
| Destination User Name       | UserName                                     |
| Device Action               | Type   |
| Device Custom Date 1        | GeneratedTime                                |
| Device Custom IPv6 Address3 | IPV6   |
| Device Custom Number 1      | ManagedState                                 |
| Device Custom Number 2      | TenantId                                     |
| Device Custom String 1      | FamilyDispName                               |
| Device Custom String 2      | ProductFamily                                |
| Device Custom String 3      | AgentPlatform                                |
| Device Custom String 5      | AgentGUID                                    |
| Device Custom String 6      | AgentVersion                                 |
| Device Event Class ID       | EventID                                      |
| Device Facility             | SiteName                                     |
| Device Product              | 'Threat Intelligence Exchange Server'        |
| Device Receipt Time         | ReceivedTime                                 |
| Device Severity             | Severity                                     |
| Device Vendor               | 'McAfee'                                     |
| Device Version              | one of (Unknown,both('TIE Server ',Version)) |
| External ID                 | AutoID                                       |
| Flex String2                | tags   |
| Message                     | Description                                  |
| Name                        | Name   |
| Reason                      | Error  |

### TIE\_VSE 1.0 Events with ePO 5.3

| ArcSight ESM Field       | Device-Specific Field |
|--------------------------|-----------------------|
| Destination Address      | targetipaddress       |
| Destination HostName     | targethostname        |
| Destination Mac Address  | targetmac             |
| Destination Port         | targetport            |
| Destination Process Name | targetprocessname     |

| ArcSight ESM Field          | Device-Specific Field                         |
|-----------------------------|---|
| Destination User Name       | targetusername                                |
| Device Action               | threataction                                  |
| Device Custom Date 1        | detecttime                                    |
| Device Custom IPv6 Address2 | sourceIPv6                                    |
| Device Custom IPv6 Address3 | targetIPv6                                    |
| Device Custom Number 1      | managedstate                                  |
| Device Custom Number 2      | tenantid                                      |
| Device Custom String 1      | threatname                                    |
| Device Custom String 2      | threattype                                    |
| Device Custom String 4      | detectingproductid                            |
| Device Custom String 5      | agentguid                                     |
| Device Custom String 6      | productname                                   |
| Device Event Category       | threatcategory                                |
| Device Event Class ID       | threateventid                                 |
| Device Host Name            | producthostname                               |
| Device Mac Address          | productmac                                    |
| Device Product              | 'Threat Intelligence Exchange module for VSE' |
| Device Receipt Time         | receivedtime                                  |
| Device Severity             | threatseverity                                |
| Device Vendor               | 'McAfee'                                      |
| Device Version              | Both("TIE for VSE ",productversion)           |
| External ID                 | autoid  |
| File Path                   | One of (sourceurl,targetfilename)             |
| Flex String2                | tags  |
| Message                     | Description                                   |
| Name                        | name  |
| Request Url                 | sourceurl                                     |
| Source Address              | sourceaddress                                 |
| Source Host Name            | sourcehostname                                |
| Source Mac Address          | sourcemac                                     |
| Source Process Name         | sourceprocessname                             |
| Source UserName             | sourceusername                                |
| Transport Protocol          | targetprotocol                                |

## VirusScan Enterprise 8.8 Events with ePO 5.1/5.3/5.9

| ArcSight ESM Field         | Device-Specific Field                              |
|----------------------------|--|
| Agent (Connector) Severity | 5, 6 = Very High; 4 = High; 2, 3 = Medium, 1 = Low |
| Base Event Count           | counter  |
| Destination Address        | agentipaddress                                     |
| Destination Host Name      | agenthostname                                      |
| Destination Mac Address    | agentmac   |
| Destination NT Domain      | agentdomainname                                    |
| Destination Port           | agentport  |

| ArcSight ESM Field       | Device-Specific Field  |
|--------------------------|--|
| Destination Process Name | processname  |
| Destination User Name    | One of (username, agentusername)   |
| Device Action            | ActionName   |
| Device Address           | serveripaddress  |
| Device Custom Date 1     | detecttime   |
| Device Custom Number 1   | TenantId   |
| Device Custom Number 2   | datversion   |
| Device Custom String 1   | virusname  |
| Device Custom String 2   | virustype  |
| Device Custom String 3   | All of ('ProductName: ', productname, ',ProductVersion: ', productversion) |
| Device Custom String 4   | scantype (Analyzer Detection Method)                                       |
| Device Custom String 5   | engineversion  |
| Device Custom String 6   | datversion   |
| Device Event Category    | threatcateg  |
| Device Event Class ID    | tvdeventid   |
| Device Host Name         | serverhostname   |
| Device Product           | 'ePolicy Orchestrator'   |
| Device Receipt Time      | datetime   |
| Device Severity          | eventseverity  |
| Device Time Zone         | agenttimezone  |
| Device Vendor            | 'McAfee'   |
| Device Version           | Both ('virusscan', productversion)   |
| Event Name               | One of (eventname, virusname, 'ePO AntiVirus Scan Event')                  |
| External ID              | autoid   |
| File Name                | filename   |
| Source Address           | sourceaddress  |
| Source HostName          | source   |
| Source Mac Address       | sourcemac  |
| Source Port              | LoadBalancerHttpsPort  |
| Source Process Name      | sourceprocessname  |
| Source User Name         | sourceusername   |

## Troubleshooting

### "What do I do when the connector can't reconnect to the MS SQL Server database?"

In some cases, connectors using MS SQL Server databases are unable to reconnect to the database after losing and reacquiring network connection. Restarting the connector will resolve this problem.

### "How do I deploy SQL Server Native Client?"

When deploying an application that is dependent on SQL Server Native Client, you will need to redistribute SQL Server Native Client with your application. Unlike Microsoft Data Access Components (MDAC), which is now a component of the operating system, SQL Server Native Client is a component

of SQL Server. Therefore, it is important to install SQL Server Native Client in your development environment and redistribute SQL Server Native Client with your application.

The SQL Server Native Client redistributable installation program, named sqlncli.msi, is available on the SQL Server installation media and is available as one of the SQL Server Feature Pack components on the Microsoft Download site. For more information about deploying SQL Server Native Client with your application, see "Deploying Applications with SQL Server Native Client" available from Microsoft.

#### **"Why does my connection to SQL Server fail/hang?"**

Oracle has released Java 6 update 30 (6u30) that behaves differently from JRE 6u29, causing possible database connection problems for SQL Server database connectors using JDBC connection. These connection problems can occur with JRE 1.6.0\_29 (6u29) and later versions.

Microsoft recommends using JRE 6u30 (and above) instead of JRE 6u29. Apply the "SQL Server 2008 R2 Service Pack 1 Cumulative Update 6" patch to the SQL server if you are experiencing connection failures or hangs.

#### **"Why am I receiving the message 'Login failed for user 'sqluser'. The user is not associated with a trusted SQL Server connection.'"**

Only Microsoft JDBC driver v4 or later support integrated authentication. The driver also does not provide function to supply Windows authentication credentials such as user name and password. In such cases, the applications must use SQL Server Authentication. When installing the connector on a non-Windows platform, configure the Microsoft SQL Server for Mixed Mode Authentication or SQL Server Authentication.

#### **"How can I keep the connector from becoming clogged with events after being shut down for awhile?"**

If the connector is shut down for some time on an active database, a lot of events can accumulate that can clog the connector on restart. The `preservestate` parameter can be used to avoid this situation. This parameter is enabled (true) by default. Setting `preservestate` to disabled (false) in the `agent.properties` file allows the connector to skip the old events and start from real time. The `agent.properties` file is located in the `$ARCSIGHT_HOME\current\user\agent` folder. Restart the connector for your change to take effect.

#### **"What do I do when I receive "Connector parameters did not pass the verification with error ..." message?"**

You may not have the correct version of jar file. When you download the JDBC driver, the version of the jar file depends on the version of JRE the connector uses. Versions 7.2.1 and later use JRE 1.8 and require `sqljdbc42.jar`. Versions 7.1.2 and later use JRE 1.7 and require `sqljdbc41.jar`. Prior versions of the connector that run JRE 1.6 require `sqljdbc4.jar`.