



# ArcSight SmartConnectors

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## Configuration Guide for McAfee Vulnerability Manager DB SmartConnector

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Open Text Corporation

275 Frank Tompa Drive, Waterloo, Ontario, Canada, N2L 0A1

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# Configuration Guide for McAfee Vulnerability Manager DB SmartConnector

This guide provides information for installing the SmartConnector for McAfee Vulnerability Manager DB and configuring the device for scan report event collection.

This guide provides a high level overview of ArcSight SmartConnectors.

## Intended Audience

This guide provides information for IT administrators who are responsible for managing the ArcSight software and its environment.

## Additional Documentation

The ArcSight SmartConnector documentation library includes the following resources:

- [Technical Requirements Guide for SmartConnector](#), which provides information about operating system, appliance, browser, and other support details for SmartConnector.
- [Installation and User Guide for SmartConnectors](#), which provides detailed information about installing SmartConnectors.
- [Configuration Guides for ArcSight SmartConnectors](#), which provides information about configuring SmartConnectors to collect events from different sources.
- [Configuration Guide for SmartConnector Load Balancer](#), which provides detailed information about installing Load Balancer.

For the most recent version of this guide and other ArcSight SmartConnector documentation resources, visit the [documentation site for ArcSight SmartConnectors 8.4](#).

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# Product Overview

McAfee Vulnerability Manager enterprise software provides complete vulnerability protection to the entire organizational infrastructure by providing an end-to-end system to find and fix vulnerabilities before an attacker has time to exploit them.

## Prerequisites

This section provides instructions to configure the device to send events to the ArcSight SmartConnector.

The SmartConnector for McAfee Vulnerability Manager, as other vulnerability scanners, supports the following operational modes:

**Interactive:** This mode is designed to be used by an operator that requires only certain reports to be sent to ArcSight. In this mode, the connector first retrieves a list of the scan reports contained in Vulnerability Manager's database and presents it in a UI window so that you can select the type of scan reports to be sent to the ArcSight ESM Manager. In this mode, the connector must be run only as a stand alone application.

**Automatic:** This mode is designed to automatically import the reports from Vulnerability Manager to the ArcSight ESM Manager whenever a new scan is performed using the Vulnerability Manager application. In this mode, the connector queries the database constantly to check whether new scans are completed. When the connector detects that a new scan, it sends the scan report to the ArcSight ESM Manager. The connector can run as a service in this mode because it is designed to run in unattended mode.

In both modes, the SmartConnector for McAfee Vulnerability Manager records the IDs of the reports that are already sent to the ArcSight ESM Manager. If you use the interactive mode, the list of reports available contains only the reports that are in the database and are not yet in the ArcSight ESM Manager.

## Downloading the JDBC Driver

The SmartConnector installation requires JDBC driver to be present. During the installation process, you will be directed to leave the wizard and copy the JDBC driver file you downloaded to a SmartConnector folder.



**Note:** Different versions of the JDBC driver are required for different SQL Server database versions. The name of the jar file may be different for some JDBC driver versions. Make sure that you use the correct driver for your database version

Refer to the following information to download the correct jar file depending on the JRE version used by the SmartConnector:

## Prerequisites

- SmartConnector Version 8.3.0 uses JRE 1.8.0\_312 and supports jar files from version mssql-jdbc-6.4.0.jre8.jar ([Download Microsoft JDBC Driver 6.4 for SQL Server](#)) to mssql-jdbc-9.4.0.jre8.jar ([Download Microsoft JDBC Driver 9.4.0 for SQL Server](#)).
- SmartConnector Version 7.2.1 and later use JRE 1.8 and require sqljdbc42.jar ([Download Microsoft JDBC Driver 6.0 for SQL Server](#)).
- SmartConnector Version 7.1.2 and later use JRE 1.7 and require sqljdbc41.jar ([Download Microsoft JDBC Driver 6.0 for SQL Server](#)).
- Earlier versions of SmartConnector run JRE 1.6 and require sqljdbc4.jar (available with Microsoft JDBC Driver 4.0 for SQL Server).

For more information related to the Microsoft JDBC driver, see [Microsoft Documentation](#).

# Installing 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.

## Preparing to Install the SmartConnector

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

For complete product information, refer to the *Administrator's Guide to ArcSight Platform*, available on [ArcSight Documentation](#).

If you are adding a connector to the ArcSight Management Center, see the *ArcSight Management Center Administrator's Guide* available on [ArcSight Documentation](#) for instructions.

Before installing the SmartConnector, make sure that the following are available:

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

## Installing and Configuring the SmartConnector

1. Start the installation wizard.
2. Follow the instructions in the wizard to install the core software.
3. Exit the installation wizard.
4. Copy the jar file associated with the version of the driver that you downloaded earlier to `$ARCSIGHT_HOME/current/user/agent/lib`
5. To use JDBC driver with SmartConnectors to connect to Microsoft SQL Servers by using Windows authentication, copy the `sqljdbc_auth.dll` file from the JDBC driver download to the `$ARCSIGHT_HOME\jre\bin` directory.

An example of The JDBC driver download path for SQL JDBC driver is:



- For version 4.0 for 32-bit environment is `sqljdbc_4.0\enu\auth\x86\sqljdbc_auth.dll`
- For 64-bit environment, `sqljdbc_4.0\enu\auth\x64\sqljdbc_auth.dll`

To use the latest version of SQL JDBC Driver such as 9.4:

- Copy the `mssql-jdbc-9.4.0.jre8.jar` file associated with the version of the driver that you downloaded earlier to `$ARCSIGHT_HOME/current/user/agent/lib`
- Copy the `mssql-jdbc_auth-9.4.0.x64.dll` file from the JDBC driver download to the `$ARCSIGHT_HOME\jre\bin` directory.



**Note:** If you are upgrading the SmartConnector, you must copy the authentication file to `$ARCSIGHT_HOME\jre\bin` again after update, as the upgrade process overwrites the `$ARCSIGHT_HOME\jre\bin` directory.

6. Copy certificate and JDBC files to SmartConnector folders as follows:

- Copy the `jssecacerts` certificate that you installed during the device configuration to the SmartConnector installation folder `$ARCSIGHT_HOME/current/jre/lib/security`.



**Note:** You must copy this file again to the installation folder after upgrading the SmartConnector as this file gets overwritten during the upgrade process.

- Copy the `vjdbc.jar` and `commons-logging-1.1.jar` files to the SmartConnector installation folder `$ARCSIGHT_HOME/current/user/agent/lib`. These files are located in the `lib` directory that was created when you downloaded the JDBC driver and unzipped the package.

7. Browse to `$ARCSIGHT_HOME/current/bin`, then double-click `runagentsetup.bat` file to start the SmartConnector Configuration Wizard.
8. Specify the relevant Global Parameters, when prompted.
9. Select **McAfee Vulnerability Manager DB** from the **Type** drop-down, then click **Next**.
10. Enter the following SmartConnector parameters, then click **Next**.

Parameter	Description
JDBC/ODBC Driver	Select the <code>com.microsoft.sqlserver.jdbc.SQLServerDriver</code> driver.
Database URL	Enter <code>jdbc:sqlserver://&lt;MS SQL Server Host Name or IP Address&gt;:1433;DatabaseName=&lt;MS SQL Server Database Name&gt;</code> . Replace the actual values for <code>&lt;MS SQL Server Host Name or IP Address&gt;</code> and <code>&lt;MS SQL Server Database Name&gt;</code> .  <div> <b>Note:</b> If using Windows authentication append <code>;integratedSecurity=true</code> to the end of the URL string. Make sure that you use the name or instance of the database configured during installation or audit. For example:  <code>jdbc:sqlserver://mysqlserver:1433;DatabaseName=mydatabase;integratedSecurity=true</code> </div>
Database User	Enter the name of the Vulnerability Manager database user with adequate privilege.
Database Password	Enter the password for the Vulnerability Manager database user.
Mode	Select either <a href="#">Interactive</a> or <a href="#">Automatic</a> Mode.
Start At ID	This parameter identifies the ID of the report at which the connector starts either showing the list in Interactive Mode or processes the reports in Automatic Mode. A value of 0 will cause all the scans to be sent to ArcSight or displayed in the interactive list. You need to set this value only once because the connector records the scans sent to the ArcSight Manager.
Locate Imported Assets under Organization?	Determines whether assets are to be placed under Organization as opposed to the default asset placement of ArcSight.

11. Select a [destination and configure parameters](#).
12. Specify a name for the connector.
13. (Conditional) 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 then click **Next**. The certificate is imported and the **Add connector Summary** window is displayed.



**Note:** If you select Do not import the certificate to connector from destination, the connector installation will end.

14. Select whether you want to install the connector as a service or in the standalone mode.
15. Complete the installation.

16. [Run the SmartConnector.](#)

For instructions about upgrading the connector or modifying parameters, see [Installation and User Guide for SmartConnector](#).

## Payload Support

Vulnerability details and extra information can be retrieved from the Vulnerability Manager database by using the on-demand payload feature on the ArcSight Console. Click any of the vulnerability events sent by the Vulnerability Manager SmartConnector to see the Payload data in the Event Inspector. If you click the **Payload** tab, you can see additional information such as Description and Recommendation. Also, you can receive information such as Description and Detail for service events.

For more information, see [Payload Sampling](#).

# 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.

## Vulnerability Manager Mappings

ArcSight ESM Field	Device-Specific Field
Additional data	Banner=Banner
Additional data	NetBiosName=NBName
Agent (Connector) Severity	High = Device Severity 7, 8, 9, 10; Medium = Device Severity 4, 5, 6; Low = Device Severity 0, 1, 2, 3
Category Technique	Vulnerability Category
Destination Address	IPAddress
Destination Host Name	DNSName
Destination Mac Address	MAC
Destination NT Domain	NBWorkGroup
Destination Port	Port
Device Custom IPv6 Address 3	IPAddress
Device Custom Number 1	JobID
Device Custom Number 2	Status
Device Custom String 2	CVE
Device Custom String 3	ConfigurationName
Device Custom String 4	JobName
Device Custom String 5	OSName
Device Custom String 6	TemporalScoreValue
Device Domain	'Network'
Device Product	'FoundScan'
Device Receipt Time	EndTime
Device Severity	Risk

ArcSight ESM Field	Device-Specific Field
Device Vendor	'McAfee'
End Time	EndTime
File Path	OSName
Message	Recommendation
Name	name
Old File Path	_SCAN_JOB_ID
Service	ServiceName
Start Time	StartTime
Transport Protocol	protocol

# 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`.



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