opentext™

ArcSight SmartConnectors

Software Version: CE 24.4

Configuration Guide for Microsoft System Center Operations Manager DB SmartConnector

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Support Web Site	https://softwaresupport.softwaregrp.com/
ArcSight Product Documentation	https://www.microfocus.com/documentation/arcsight/

Contents

Configuration Guide for Microsoft System Center Operations Manager DB SmartConnector

This guide provides information for installing the SmartConnector for Microsoft System Center Operations Manager DB and configuring the device for 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.

Contact Information

We want to hear your comments and suggestions about this book and the other documentation included with this product. You can use the comment on this topic link at the bottom of each page of the online documentation, or send an email to MFI-Documentation-Feedback@opentext.com.

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Product Overview

Microsoft Systems Center Operations Manager is designed to simplify monitoring and management of large, heterogeneous IT infrastructures.

Microsoft Forefront Client Security provides unified, easily managed malware protection for business desktops, laptops, and server operating systems. Forefront Client Security with Microsoft Operations Manager 2005 is supported.

> The preferred Operations Manager setup method is to use SQL Server Authentication. The ODBC source you create on the machine where you install the SmartConnector must match the configuration of the SCOM setup authentication type; otherwise, the SmartConnector cannot successfully authenticate.

Prerequisites

This section provides instructions to configure the Microsoft Systems Center Operations Manager Database to send events to the ArcSight SmartConnector.

If you are using the Audit Collection Services (ACS) agent with Operations Manager, use the SmartConnector for Microsoft Audit Collection System DB.

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:

- 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 that you do not install database connectors on the database server or any mission critical servers as this might 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
- Minimum DB privileges - OpenText recommends the following minimum permissions to access the database:
    - Explicit CONNECT permission
    - Explicit SELECT permission
    - Public role
    - db_datareader_role

    For more information about any specific permission, see the documentation of the specific database.

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 SmartConnectorinstallation 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 **Microsoft Systems Center Operations Manager DB** from the Type drop-down, then click **Next**.

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

Parameter	Description
JDBC/ODBC Driver	Select the `com.microsoft.sqlserver.jdbc.SQLServerDriver` driver.
Database URL	Enter: `jdbc:sqlserver://<MS SQL Server Host Name or IP Address>:1433;DatabaseName=<MS SQL Server Database Name>`. Replace with the actual values for <MS SQL Server Host Name or IP Address> and <MS SQL Server Database Name>. To configure JDBC Driver and Windows Authentication, add `;integratedSecurity=true` to the JDBC URL entry for the connection to your database. **Note:** The name or instance of the database configured at installation or audit time must be used. For example, `jdbc:sqlserver://mysqlserver:1433;DatabaseName=mydatabase;integratedSecurity=true`
Database User	Enter the user name of the MS SQL Server DB user with appropriate database privilege.
Database Password	Microsoft SCOM database URL password.

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.

Adding the 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 required containers, as follows:

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.

7. Click **Submit** to add the specified file to the repository and click **Next** to continue.

8. After adding all the files you require, click **Next**.

9. In the **Name** field, enter a descriptive name for the zip file (for example, `JDBCdriver`). 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 one or more containers into which you want to upload the driver, then click **Next**.

13. Click **Done** to complete the process.

14. Add the connector through the Connector Appliance/ArcSight Management Center interface. For more information, see the *Connector Appliance/ArcSight Management Center Online Help*.

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.

Due to limitations in event format in Operations Manager 2007, events cannot be further parsed by the Windows Event Log SmartConnector as is done with SCOM 2005.

Support for Microsoft Forefront Client Security events has been added; the mappings shown in the Forefront Client Security event mappings table are in addition to support for the same event mappings as for SCOM events.

Operations Manager 2012 Event Mappings

ArcSight ESM Field	Device-Specific Field
Agent (Connector) Severity	High = 3; Medium = 2; Low = 1
Destination Host Name	LoggingComputer
Destination NT Domain	extracted from EventUser
Destination User Name	extracted from EventUser
Device Custom Date 2	TimeAdded
Device Custom Number 2	Number (Windows Event Number)
Device Custom String 1	RuleName
Device Custom String 2	PublisherName (Event Source)
Device Custom String 3	RuleCategory
Device Custom String 5	ObjectFullName
Device Event Category	Channel
Device Event Class ID	Both (Channel, Number)
Device Host Name	LoggingComputer
Device Product	'Operations Manager'
Device Receipt Time	TimeGenerated
Device Severity	RulePriority
Device Vendor	'Microsoft'

ArcSight ESM Field	Device-Specific Field
External ID	EventId
Message	EventParameters
Name	RuleName

Operations Manager 2007 Event Mappings

ArcSight ESM Field	Device-Specific Field
Agent (Connector) Severity	High = 3; Medium = 2; Low = 1
Destination Host Name	LoggingComputer
Destination User ID	Destination User Name
Device Custom Date 2	TimeAdded
Device Custom Number 2	Number (Windows Event Number)
Device Custom String 1	RuleName
Device Custom String 2	PublisherName
Device Custom String 3	RuleCategory
Device Event Category	Channel
Device Event Class ID	Channel plus Number
Device Host Name	LoggingComputer
Device Product	'Microsoft Operations Manager 2007'
Device Receipt Time	TimeGenerated
Device Severity	RulePriority
Device Vendor	'Microsoft'
External ID	EventId
Message	EventParameters
Name	RuleName

Additional Mappings for Microsoft Forefront Client Security Events

ArcSight ESM Field	Device-Specific Field
Device Custom String 2	Issue Name
Device Custom String 3	Risk
Device Product	'Microsoft Forefront'
Device Severity	Severity
Name	extracted from Message field

Operations Manager 2005 Event Mappings

ArcSight ESM Field	Device-Specific Field
Agent (Connector) Severity	Very High = Audit Failure; High = Error; Medium = Warning; Low = Success, Information, Audit Success
Destination Host Name	ComputerName
Destination User ID	UserName
Device Custom Date 2	TimeStored
Device Custom Number 3	isAlerted
Device Custom String 1	EventId
Device Custom String 4	idEvent
Device Custom String 5	oneof (SourceName,"Unknown")
Device Custom String 6	SourceCategory
Device Event Category	ProviderName
Device Event Class ID	SourceName plus EventId
Device Host Name	ComputerName
Device Product	Microsoft Operations Manager 2005
Device Receipt Time	TimeGenerated
Device Severity	EventType
Device Vendor	Microsoft

ArcSight ESM Field	Device-Specific Field
File Name	MsgFileName
File Type	"Message File"
Message	Message
Name	Event name from Message field
Source Host Name	(Optional) SourceComputerName

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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