



# ArcSight SmartConnectors

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## Configuration Guide for HPE IPC DB SmartConnector

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# Configuration Guide for HPE IPC DB SmartConnector

This guide provides information for installing the SmartConnector for HPE IPC 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](#).

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# Product overview

HPE Information Protection and Control (IPC) software (also known as Secure Islands IQProtector from Atalla) provides data loss prevention and data security at the source of creation. It utilizes an agent-based approach to capture, classify, and protect all information on the endpoint from creation and through the lifecycle of that information. It captures data such as email, text, CAD/CAM design, MS Office files, audio and image created from any source such as data generated by apps, Web,cloud, and file stores.

## Prerequisites

For information about configuring the device to send events, see the HPE IPC product documentation. For server and software information, see "Management Server Software Requirements" section in the product Administration Guide

## Access requirements

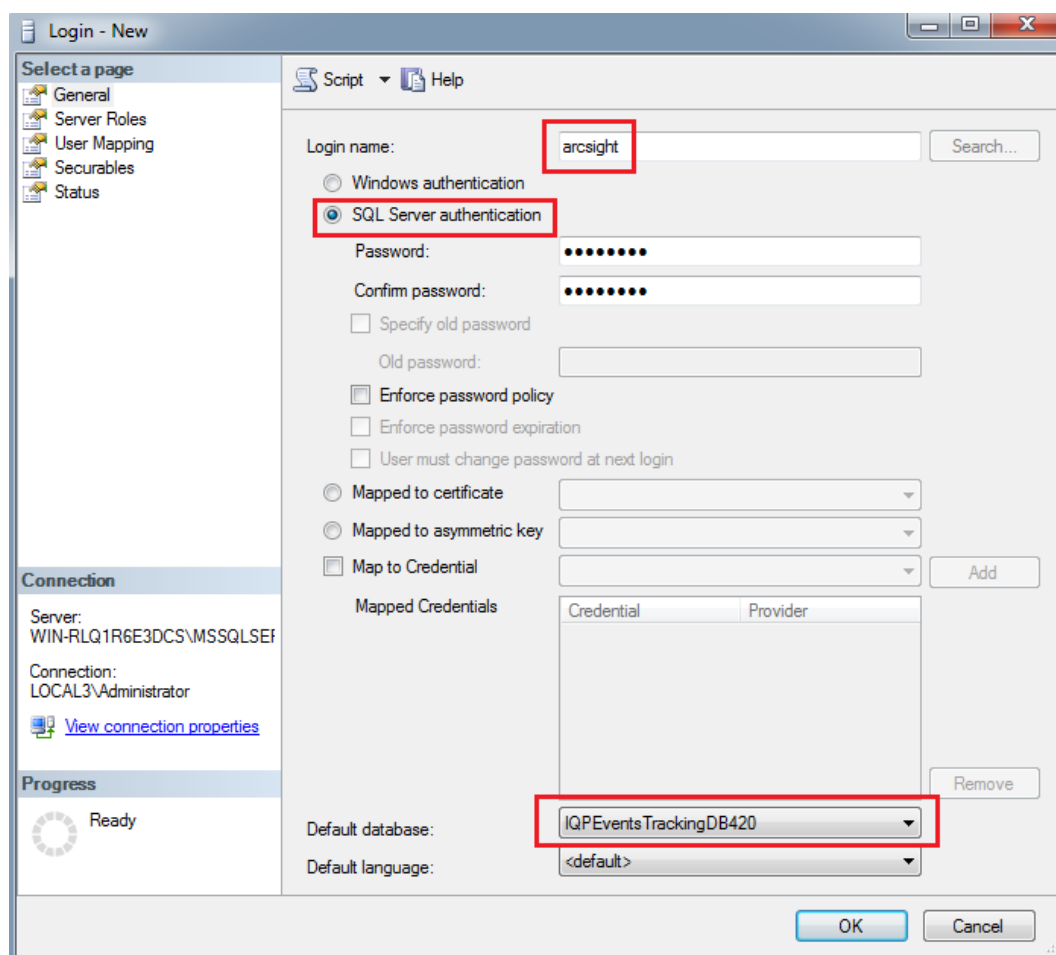
Make sure that access is provided for the following for the SmartConnector to access log events:

- **Database:** IPQEventsTrackingDB420
- **Tables:** events\_for\_siem, static\_interceptor\_event, static\_action, and endpoint\_view

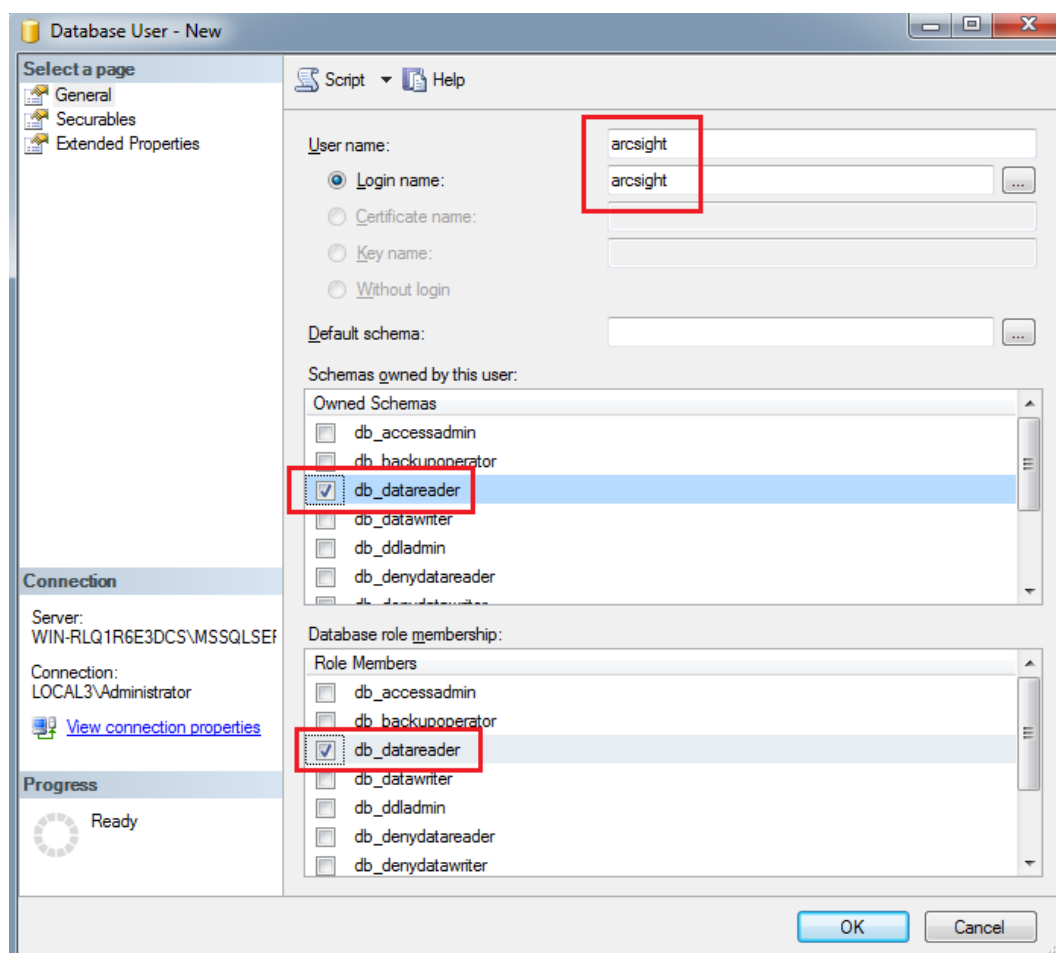
## Configuring the device to send events

**To prepare IPC for integration with the SmartConnector:**

1. Configure Microsoft SQL Server to accept remote connections.
2. Configure Microsoft SQL Server for SQL Server Authentication.
3. Do one of the following:
  - Create a new user with :
    - a. Open **SQL Server Management Studio** Navigate to **Security**, right-click on **Logins** , then select **New Login**.
    - b. Provide the following attributes to the new user, then click **OK**.



- c. Grant Read Only access to the `IPQEventsTrackingDB420` table. Navigate to **Databases > IQPEventsTrackingDB420 > Security**, right-click **Users** and select the **New User**.
- d. Grant the role as shown in the following image, then click **OK**.



- Select an existing user, who has the permissions and attributes specified in the previous option.

## 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, refer to this [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
- 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 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 **HPE IPC DB** from the **Type** drop-down, then click **Next**.
10. Specify the following parameters:

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>,' substituting actual values for <MS SQL Server Host Name or IP Address> and <MS SQL Server Database Name>.
Database User	Enter the login name of the database user with adequate privileges.
Database Password	Enter the password for the database user.
Frequency	Database polling frequency. Default is 5 seconds.

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](#).



**Note:** 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.

## 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.

## HPE IPC mappings

ArcSight ESM Field	Device-Specific Field
Destination Host Name	HOST
Destination User Name	__extractNTUser(USERS)
Device Custom Date 1	OCCURRED_TIME
Device Custom Number 1	ID
Device Custom Number 2	RELATIONSHIP
Device Custom String 1	RULE_NAME
Device Custom String 2	POLICY_ID
Device Custom String 3	INFO_STAGE
Device Custom String 4	INTERCEPTOR
Device Custom String 5	DATACLASS
Device Custom String 6	SENDER
Device Event Category	CATEGORY
Device Event Class Id	One of (ACTION_CODE or EVENT_CODE:ACTION_CODE)
Device Host Name	_DB_HOST
Device Product	'IPC'
Device Receipt Time	RECEIVED_TIME
Device Vendor	'HPE'
Device Version	All of (VERSION_MAJOR,".",VERSION_MINOR)
File Name	ITEM
File Path	ITEM_PATH
File Type	ITEM_TYPE

ArcSight ESM Field	Device-Specific Field
Name	One of (ACTION or EVENT:ACTION )
Source Host Name	HOST
Source Process Name	PROCESS

# 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 Java 6 update 30 (6u30) 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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**Feedback on Configuration Guide for HPE IPC DB SmartConnector (SmartConnectors CE 24.4)**

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