



Informatica® Data Integration - Free & PayGo
April 2023

Secure Agent Services

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Preface

Use *Secure Agent Services* to learn about the microservices that the Informatica Intelligent Cloud ServicesSM Secure Agent uses for processing data in Data Integration. Learn how to configure service properties.

Informatica Resources

Informatica provides you with a range of product resources through the Informatica Network and other online portals. Use the resources to get the most from your Informatica products and solutions and to learn from other Informatica users and subject matter experts.

Informatica Documentation

Use the Informatica Documentation Portal to explore an extensive library of documentation for current and recent product releases. To explore the Documentation Portal, visit <https://docs.informatica.com>.

If you have questions, comments, or ideas about the product documentation, contact the Informatica Documentation team at infa_documentation@informatica.com.

Informatica Intelligent Cloud Services web site

You can access the Informatica Intelligent Cloud Services web site at <http://www.informatica.com/cloud>. This site contains information about Informatica Cloud integration services.

Informatica Intelligent Cloud Services Communities

Use the Informatica Intelligent Cloud Services Community to discuss and resolve technical issues. You can also find technical tips, documentation updates, and answers to frequently asked questions.

Access the Informatica Intelligent Cloud Services Community at:

<https://network.informatica.com/community/informatica-network/products/cloud-integration>

Developers can learn more and share tips at the Cloud Developer community:

<https://network.informatica.com/community/informatica-network/products/cloud-integration/cloud-developers>

Informatica Intelligent Cloud Services Marketplace

Visit the Informatica Marketplace to try and buy Data Integration Connectors, templates, and mapplets:

<https://marketplace.informatica.com/>

Data Integration connector documentation

You can access documentation for Data Integration Connectors at the Documentation Portal. To explore the Documentation Portal, visit <https://docs.informatica.com>.

Informatica Knowledge Base

Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

To search the Knowledge Base, visit <https://search.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB_Feedback@informatica.com.

Informatica Intelligent Cloud Services Trust Center

The Informatica Intelligent Cloud Services Trust Center provides information about Informatica security policies and real-time system availability.

You can access the trust center at <https://www.informatica.com/trust-center.html>.

Subscribe to the Informatica Intelligent Cloud Services Trust Center to receive upgrade, maintenance, and incident notifications. The [Informatica Intelligent Cloud Services Status](#) page displays the production status of all the Informatica cloud products. All maintenance updates are posted to this page, and during an outage, it will have the most current information. To ensure you are notified of updates and outages, you can subscribe to receive updates for a single component or all Informatica Intelligent Cloud Services components. Subscribing to all components is the best way to be certain you never miss an update.

To subscribe, go to <https://status.informatica.com/> and click **SUBSCRIBE TO UPDATES**. You can then choose to receive notifications sent as emails, SMS text messages, webhooks, RSS feeds, or any combination of the four.

Informatica Global Customer Support

You can contact a Customer Support Center by telephone or online.

For online support, click **Submit Support Request** in Informatica Intelligent Cloud Services. You can also use Online Support to log a case. Online Support requires a login. You can request a login at <https://network.informatica.com/welcome>.

The telephone numbers for Informatica Global Customer Support are available from the Informatica web site at <https://www.informatica.com/services-and-training/support-services/contact-us.html>.

CHAPTER 1

Secure Agent services

Secure Agent services are pluggable microservices that the Secure Agent uses for data processing. For example, the Secure Agent uses the Data Integration Server to run data integration jobs. Each Secure Agent service runs independently of the other services that run on the agent.

The independent services architecture provides the following benefits:

- The Secure Agent does not restart when you add a connector or package.
- Services are not impacted when another service restarts.
- Downtime during upgrades is minimized. The upgrade process installs a new version of the Secure Agent, updates connector packages, and applies configuration changes for the Data Integration Server. To minimize downtime, the old agent remains available and continues to run data integration jobs during the upgrade. The new version of the Secure Agent runs jobs that start after the upgrade process completes.

The following table describes the Secure Agent services that can run on an agent:

Secure Agent service	Description
Common Integration Components	Runs the shell scripts or batch commands in a Command Task step of a taskflow.
Data Integration Server	Runs data integration jobs such as mapping, task, and taskflow instances.

Each Secure Agent service has a unique set of configuration properties, such as Tomcat and Tomcat JRE settings. You might need to configure a service or change the service properties to optimize performance or if you are instructed to do so by Informatica Global Customer Support. You configure a Secure Agent service independently from other services that run on the agent.

CHAPTER 2

Common Integration Components

The Common Integration Components service is the Secure Agent service that runs the commands specified in a Command Task step of a taskflow.

You can optimize the performance of the Common Integration Components service by configuring some of its service properties. You can change service properties when you edit the Secure Agent.

All the requests that Common Integration Components service processes are logged in the following directory:

```
<Secure Agent installation directory>\apps\Common_Integration_Components\logs\<version>
```

You can view the log file for each command task in the following directory:

```
<Secure Agent installation directory>\apps\Common_Integration_Components\logs\command  
\<Command_job ID>
```

Common Integration Components properties

To change or optimize the behavior of the Common Integration Components service, configure its properties in the **System Configuration Details** section when you edit a Secure Agent.

The following image shows some of the Common Integration Components service properties:

▼ System Configuration Details

Service: Common Integration Components ▼

Type: All Types ▼

Type	Name
Tomcat	NetworkTimeoutPeriod
Tomcat	JRE_OPTS
Platform	LCM_JRE_OPTS
SYSTEM_CFG	HTTP_CONNECTION_TIMEOUT_SECONDS
SYSTEM_CFG	HTTP_SOCKET_TIMEOUT_SECONDS
COMMAND_CFG	MaximumConcurrentJobs

You can configure the following Common Integration Components service properties:

Type	Name	Description
Tomcat	JRE_OPTS	JRE VM options for the Apache Tomcat process.
Platform	LCM_JRE_OPTS	JRE options to start, stop, or get the status of the Apache Tomcat process. Note: Do not change the value of this property unless Informatica Global Customer Support instructs you to do so.
SYSTEM_CFG	HTTP_CONNECTION_TIMEOUT_SECONDS	The maximum amount of time, in seconds, that the Secure Agent waits to set up an HTTP connection to communicate with Informatica Intelligent Cloud Services. Default is 60. Note: Do not change the value of this property unless Informatica Global Customer Support instructs you to do so.
SYSTEM_CFG	HTTP_SOCKET_TIMEOUT_SECONDS	The maximum amount of idle time, in seconds, during the data packet transfer over an HTTP connection between the Secure Agent and Informatica Intelligent Cloud Services. Default is 60. Note: Do not change the value of this property unless Informatica Global Customer Support instructs you to do so.

Type	Name	Description
COMMAND_CFG	MaximumConcurrentJobs	<p>The maximum number of concurrent command tasks that can be executed by a single Secure Agent.</p> <p>The default value is 10 for each Secure Agent in a Secure Agent group.</p> <p>For example, if there are 3 Secure Agents in a Secure Agent group, the maximum number of concurrent command tasks that the service can handle is 30.</p> <p>Any command execution requests beyond the maximum limit are queued and are executed when a Secure Agent is available.</p>
<p>Note: Do not change the values of other Common Integration Components service properties unless Informatica Global Customer Support instructs you to do so.</p>		

CHAPTER 3

Data Integration Server

The Data Integration Server is the Secure Agent service that runs data integration jobs such as mapping, task, and taskflow instances.

You can optimize performance of the Data Integration Server by configuring some of its service properties. For example, you might want to change the network resiliency settings or the connection timeout period for the Secure Agent. You can change service properties when you edit the Secure Agent.

Data Integration Server resiliency

During temporary network issues, data integration tasks can continue to run while the Secure Agent tries to reestablish a connection. You can configure network resiliency properties for the Data Integration Server.

The following Data Integration Server properties determine how the Secure Agent tries to reestablish a connection:

NetworkTimeoutPeriod

Determines the length of time that the Secure Agent tries to reestablish communication with Informatica Intelligent Cloud Services. If communication is not established at the end of the time period, data integration tasks that were in progress stop running. The default value is 300 seconds.

NetworkRetryInterval

Determines the frequency with which the Secure Agent tries to contact Informatica Intelligent Cloud Services within the specified timeout period. The default value is five seconds.

For example, with the default settings, if the network is down, the Secure Agent tries to reestablish communication with Informatica Intelligent Cloud Services for 300 seconds. During the 300-second period, the Secure Agent tries to contact Informatica Intelligent Cloud Services every five seconds. If the Secure Agent reestablishes communication within the 300-second period, data integration tasks that are in progress are not affected. If the Secure Agent is unable to reestablish communication within the 300-second period, the Secure Agent stops all data integration tasks that are in progress.

Data Integration Server properties

To change or optimize behavior of the Data Integration Server, configure the Data Integration Server properties. Configure Data Integration Server properties in the **System Configuration Details** area when you edit a Secure Agent.

The following image shows some of the Data Integration Server properties:

▼ System Configuration Details		
Service:	Data Integration Server ▼	
Type:	All Types ▼	
Type	Name	Value
Tomcat	NetworkTimeoutPeriod	300
Tomcat	NetworkRetryInterval	5
Tomcat JRE	INFA_SSL	
Tomcat JRE	INFA_MEMORY	'-Xms32m -Xmx512m -XX:MaxPermSize=128m'
Tomcat JRE	JRE_OPTS	'-Xrs'
Tomcat JRE	JAVA_LIBS	
Tomcat Log4j	log4j_rootLogger	'INFO, tomcatLog'
Tomcat Log4j	log4j_appender_tomcatLog	'org.apache.log4j.FileAppender'
Tomcat Log4j	log4j_appender_tomcatLog_layout	'org.apache.log4j.PatternLayout'
Tomcat Log4j	log4j_appender_tomcatLog_layout_ConversionPattern	'%d %d{z} %p [%c] - %m%n'

You can configure the following Data Integration Server properties:

Type	Name	Description
Tomcat	NetworkTimeoutPeriod	Amount of time, in seconds, that the Secure Agent tries to reestablish communication with Informatica Intelligent Cloud Services. Default is 300.
Tomcat	NetworkRetryInterval	Frequency, in seconds, in which the Secure Agent tries to contact Informatica Intelligent Cloud Services within the specified timeout period. Default is 5.
Tomcat	INFA_DTM_STAGING_ENABLED_CONNECTORS	Applies to certain Cloud Data Warehouse connectors. Enables the Data Integration Server to optimize staging target data in a local flat file before loading the data to the target. To optimize staging, set this property to the plugin ID of the connector. For more information, see the help for the appropriate connector.

Type	Name	Description
Tomcat	INFA_DTM_RDR_STAGING_ENABLED_CONNECTORS	<p>Applies to certain Cloud Data Warehouse connectors.</p> <p>Enables the Data Integration Server to optimize the staging of source data in a local flat file after reading the data from the source.</p> <p>To optimise staging, set this property to the plugin ID of the connector.</p> <p>For more information, see the help for the appropriate connector.</p>
Tomcat	INFA_DTM_LKP_STAGING_ENABLED_CONNECTORS	<p>Applies to certain Cloud Data Warehouse connectors.</p> <p>Enables the Data Integration Server to optimize the staging of lookup data in a local flat file after reading the data from the lookup object.</p> <p>To optimize staging, set this property to the plugin ID of the connector.</p> <p>For more information, see the help for the appropriate connector.</p>
Tomcat JRE	JRE_OPTS	JRE VM options for the Apache Tomcat process.
Tomcat JRE	INFA_MEMORY	JRE VM options that are set for virtual machine memory for the Apache Tomcat process.
DTM	AgentConnectionTimeout	Number of seconds that the Secure Agent communication requests to wait before it times out. Default is 5.
DTM	JVMOption1 - JVMOption5	<p>JVM options that configure advanced properties for the Data Integration Server such as the maximum and minimum JVM heap size, the maximum record size for Intelligent Structure Discovery, or proxy settings for certain connectors. For example, to change the maximum JVM heap size from the default value of 512 MB to 2048 MB, you might set JVMOption1 to '–Xmx2048m'.</p> <p>By default, you can configure up to five advanced properties using JVMOption1 through JVMOption5. To configure additional properties, you can add custom DTM properties for the Data Integration Server named JVMOption6, JVMOption7, etc. Ensure that the option numbers are sequential and that you do not skip numbers.</p> <p>For information about the JVM options that you can set, see the help for the appropriate connector or the Knowledge Base on Informatica Network.</p>
<p>Note: Do not change the values of other Data Integration Server properties unless Informatica Global Customer Support instructs you to do so.</p>		

Data Integration Server upgrades

The Data Integration Server upgrades automatically when a new version is available.

Data Integration Server upgrades are automatic and don't require any user intervention. When an upgrade is available, a new version of the Data Integration Server starts up and the old version stops after processing all jobs. If there are long-running jobs such as CDC continuous extraction jobs, the upgrade process terminates the job on the old version of the Data Integration Server and restarts them as new jobs on the upgraded version.

When this happens, the original job shows as a failed status with the following message on the My Jobs page:

```
Job stopped for Data Integration Server upgrade and will resume as a new job on the
upgraded service.
```

The original job is replaced by a new job with a different instance name.

For more information about configuring mapping tasks for CDC continuous extraction, see the help for the appropriate connector in the online help.

CHAPTER 4

Configuring Secure Agent service properties

To configure Secure Agent service properties, open the **Runtime Environments** page and edit the Secure Agent. You can change, mask, and reset Secure Agent service property values. You can add and remove custom properties for a service. You can also change the Secure Agent name.

Custom properties are specific to connectors. For more details about custom properties, see the help for the appropriate connector.

1. On the **Runtime Environments** page, click the name of the Secure Agent.
You might have to expand the Secure Agent group to see the list of Secure Agents within the group.
2. Click the **Details** tab.
3. In the upper right corner, click **Edit**.
4. To change the Secure Agent name, enter a new name in the **Agent Name** field.
5. To edit a service property, perform the following steps:
 - a. In the **System Configuration Details** area, select a service.
 - b. Select the configuration property type.
 - c. In the row that contains the property that you want to edit, click the **Edit Agent Configuration** icon.
 - d. To change the property value, enter the new property value.
If the property is a sensitive property, the existing value will be cleared when you edit the property.
 - e. If the property contains sensitive data and you want to mask the value on the Secure Agent details page, enable the **Sensitive** option.
When you enable the sensitive option, the value you enter is masked. If the field is a multi-line text field, the value is masked after you save the changes.
 - f. To reset the property to the system default value, click the **Reset Agent Configuration to system default** icon.

6. To add a custom property for a service, perform the following steps:

- a. Scroll down to the **Custom Configuration Details** area.

The following image shows the **Custom Configuration Details** area:

Custom Configuration Details

Service	Type	Sub-type	Name	Value	Sensitive
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>  

- b. If there are custom properties already configured, click the **Add** icon to add a new property row.
- c. Select the service that you want to configure.

- d. Select a configuration property type.
 - e. If the configuration property type has a sub-type, select the appropriate sub-type.
For example, to determine the logging level, choose INFO or DEBUG as the sub-type.
 - f. Enter the property name and value.
 - g. If the property contains sensitive data and you want to mask the value on the Secure Agent details page, enable the **Sensitive** option.
- 7. To remove a custom property, click the **Remove** icon next to the custom property.
 - 8. To reset all configuration properties to the default settings, click **Reset All**.
 - 9. Click **Save**.

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