

Informatica® Cloud Application Integration April 2024

What's New

Informatica Cloud Application Integration What's New April 2024

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Publication Date: 2024-03-26

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Preface

Read What's New to learn about new features and enhancements in Informatica Intelligent Cloud Services™ Application Integration for the April 2024 release.

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:

 $\underline{https://network.informatica.com/community/informatica-network/products/cloud-integration}$

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, on the <u>Informatica Intelligent Cloud Services Status</u> page, click **SUBSCRIBE TO UPDATES**. You can 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 Global Support Center through the Informatica Network or by telephone.

To find online support resources on the Informatica Network, click **Contact Support** in the Informatica Intelligent Cloud Services Help menu to go to the **Cloud Support** page. The **Cloud Support** page includes system status information and community discussions. Log in to Informatica Network and click **Need Help** to find additional resources and to contact Informatica Global Customer Support through email.

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

April 2024

The following topics provide information about new features, enhancements, changed behaviors, and upgrade tasks in the April 2024 release of Informatica Intelligent Cloud Services™ Application Integration.

New features and enhancements

Application Integration includes the following new features and enhancements in this release:

New XQuery functions in Miscellaneous section

You can use the following new XQuery functions under the Miscellaneous section:

XQuery function name	Description	Syntax
aesEncryption	Encrypts the specified data with the provided key using the Advanced Encryption Standard (AES) algorithm.	util:aesEncryption(key, dataToEncrypt)
aesDecryption	Decrypts the specified data with the provided key using the Advanced Encryption Standard (AES) algorithm. Note: You must use the same key that you had used for encrypting the data in the aesEncryption function.	util:aesDecryption(key, dataToDecrypt)

For more information about these new XQuery functions, see Design.

Process Designer user interface

The Process Designer user interface is modified to have a modern, clean look and feel. Fonts are updated to increase readability. However, you can switch the user interface between the modern view and the classic view, if required.

For more information about switching the Process Designer user interface, see Design.

Support for Amazon Identity and Access Management (IAM) authentication in app connections

You can configure IAM authentication when you use Amazon SQS and Amazon S3 connections on an Amazon Elastic Compute Cloud (EC2) system. IAM authentication provides secured access to Amazon S3 and Amazon SQS resources. The AWS IAM system is used to map policies to IAM roles or external resources. These policies determine the list of permissions that can be assigned to the IAM roles.

For more information about configuring IAM authentication in Amazon SQS and Amazon S3 connections, see the corresponding connector guide.

Support for list of simple types in the process object editor in a service connector

When you configure a process object in a service connector, you can configure the following list of simple data types for process object fields:

- Checkbox
- Date
- · Date Time
- Integer
- Number
- Text
- Time

When you create a process object in a service connector, you can define a comma-separated list of check box, date, date time, integer, number, text, and time values.

For more information about using a list of simple type, see Design.

Support for overriding properties in the platform.yaml file

The platform. yaml file is a configuration file that is used by the Process Server to get the configuration details related to Application Integration communication with the Secure Agent services.

You can override the property values in the <code>platform.yaml</code> file available on the Secure Agent by using a custom <code>user-platform.yaml</code>. To override the values, create a copy of the <code>platform.yaml</code> file with the required properties and their custom values, name the file as <code>user-platform.yaml</code>, and save it in the following directory:

<Secure Agent installation directory>\apps\process-engine\conf

When the Process Server is up and running, if a property is specified in the user-platform.yaml file, the Process Server uses that specific value. Otherwise, the Process Server uses the values defined in the platform.yaml file.

For more information about configuring custom values for properties in the platform.yaml file, see Secure Agent Services.

Support for reading headers from Kafka messages

Kafka consumers can consume headers sent with Kafka messages. The message headers are displayed in the **event** input field and can be used in a process.

The headers values are converted to string by default. You must ensure that the header uses a basic primitive type such as integer, floating point, or string. Otherwise, you might see random characters.

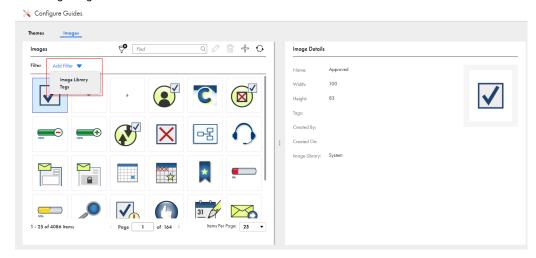
Changed behaviors

Application Integration includes the following changed behaviors in this release:

Configure Guides page

The Configure Guides page includes the following changes:

 In the Images tab, filter options such as Image Library and Tags appear in a list format as shown in the following image:



Previously, these options were available separately.

- When you select the filter as **Tags**, the **Find** box appears only if the list contains more than 10 tags. Previously, the **Find** box appeared by default.
- In the **Themes** tab, you can resize the **Configure Themes** section by dragging the section separator as required. Previously, you could only make the **Configure Themes** section occupy either 50 percent or 100 percent of the screen by clicking the section separator.
- In the Themes tab, when you edit the CSS in the Style Editor section, the changes are immediately
 reflected in the Configure Themes section and the Save button is enabled. Previously, after editing the
 CSS, you had to click outside the Style Editor section to view and save the changes.

For more information about configuring guides, see Design.

Format of process output fields of the Number type for XML payloads

In an Application Integration process, if an output field of the Number data type has a precision greater than 7, the value does not get converted into the exponential format for XML payloads.

Previously, if a process contained an output field of the Number type with a precision greater than 7, the value was converted into the exponential format for XML payloads.

Improved security for Business Process Archive file deployment on the Cloud Server

To improve security, in the Application Integration Console and Process Console, you can't deploy the Business Process Archive (.bpr) file on the Cloud Server if the .bpr file contains the following extensions:

.mp4, .mkv, .exe, .php, .jsp, .pdf, .mp3, .bpr, .zip, .rar, .tar, .py, .java, .cpp, .bash

Previously, you could deploy the .bpr file on the Cloud Server without any restriction.

For more information about deploying the .bpr file on the Cloud Server, see Monitor and Process Developer.

Password retention in Service Connector bindings

When you configure the user credentials for basic authentication in the binding properties for a service connector, you can perform the following actions:

- You can retain the password by enabling the new Expression in Password field so that you can export the
 password when you export the service connector.
- You can see the value of the password that you enter using the new glass icon that appears in the Password field.

Previously, when you configured the user credentials, a **Show password** field was displayed. When you exported the service connector with the **Show password** field selected, you could see the value of the password on the page and export the password.

For more information about the binding properties for service connectors, see Design.

Upgrade

The following topic provides information about the task that you must perform after you upgrade to the April 2024 release.

Process Server restart

As part of this release, updates were made to the Process Server service on the Secure Agent. The updates do not affect the service and the agent processes will continue to work as is. As a result of the deployment of the updates, you will see that the status of the Process Server service shows up as **Restart Required**.

If you have configured an upgrade restart schedule for the Process Server, the restart will happen automatically as per the schedule. Otherwise, by default, the restart will happen 7 days after your Point of Deployment (POD) upgrade.

If you would like to manually restart the Process Server at your own convenience and get the latest updates, perform the following steps:

- 1. Open the Administrator service and select Runtime Environments.
- 2. On the **Runtime Environments** page, click the name of the Secure Agent.
 - **Note**: You might have to expand the Secure Agent group to see the list of Secure Agents within the group.
- 3. Click the **Details** tab.
- 4. In the Agent Service Start or Stop area, select the service as Process Server.
- 5. Click Stop.
- 6. Click **Start** to restart the Process Server service. After the service starts, the status changes to **Up and Running**. If the service fails to start, check the audit log to find the cause of the error.

For more information about Secure Agents, see Runtime Environments in the Administrator help system.

CHAPTER 2

February 2024

The following topics provide information about new features, enhancements, and changed behaviors in the February 2024 release of Informatica Intelligent Cloud Services[™] Application Integration.

New features and enhancements

Application Integration includes the following new features and enhancements in this release:

Bulk unpublish for Application Integration assets

You can use the unpublish resource to unpublish multiple Application Integration assets simultaneously and save time.

To unpublish multiple Application Integration assets simultaneously, use a POST request with the following URL:

<Cloud Application Integration POD URL>/active-bpel/asset/v1/unpublish

For more information about using the unpublish resource, see Invoke.

New process scheduler REST APIs

You can use REST APIs to view, create, update, and delete process schedules.

You can use the following process scheduler REST APIs:

Get Schedule

You can use the Get Schedule API to perform the following tasks:

- · View a list of process schedules.
- View a list of process schedules that run on the Cloud Server within a specific organization.
- · View a list of process schedules that run on Secure Agents within a specific organization.
- · View details of a specific process schedule.

Create Schedule

You can use the Create Schedule API to create a process schedule that runs on the Cloud Server or on Secure Agents.

Update Schedule

You can use the Update Schedule API to update a process schedule that runs on the Cloud Server or on Secure Agents.

Delete Schedule

You can use the Delete Schedule API to delete all process schedules on the Cloud Server or on Secure Agents.

For more information about using the process scheduler REST APIs, see Monitor.

Changed behaviors

Application Integration includes the following changed behaviors in this release:

Configure PostgreSQL database with a custom user and database

When you configure an Azure, AWS, Aurora, or any external PostgreSQL database with the Process Server, you can use a custom user name and custom database name to connect to the PostgreSQL database.

Previously, you could use only the default user name and password <code>bpeluser/bpel</code> and the default <code>activevos</code> database to configure a PostgreSQL database with the Process Server.

For more information, see Configure in the How-To library section on the documentation portal.

Format of process output fields of the Number type for JSON responses

In an Application Integration process, if an output field of the Number data type has a precision greater than 7, the value does not get converted into the exponential format for JSON responses.

Previously, if a process contained an output field of the Number type with a precision greater than 7, the value was converted into the exponential format for JSON responses.

CHAPTER 3

November 2023

The following topics provide information about new features, enhancements, and changed behaviors in the November 2023 release of Informatica Intelligent Cloud Services™ Application Integration.

Important notices

Effective in the November 2023 release, the following feature and changed behavior are available for preview:

New Loop step in process

You can add a Loop step to a process to run steps in a loop based on a loop condition.

For example, you can use a Loop step to iterate the steps until a certain condition is satisfied, instead of using a Decision step to check the condition and a Jump step to loop back until the condition is satisfied.

You can use two types of loops in a process, the While loop and the Repeat Until loop. In the While loop, the process enters the loop only if the loop condition is satisfied. In the Repeat Until loop, the process enters the loop but exits only when the loop condition is satisfied.

For more information about the Loop step, see Design.

Preview functionality is supported for evaluation purposes but is unwarranted and is not supported in production environments or any environment that you plan to push to production. Informatica intends to include the preview functionality in an upcoming release for production use, but might choose not to in accordance with changing market or technical circumstances. For more information, contact Informatica Global Customer Support.

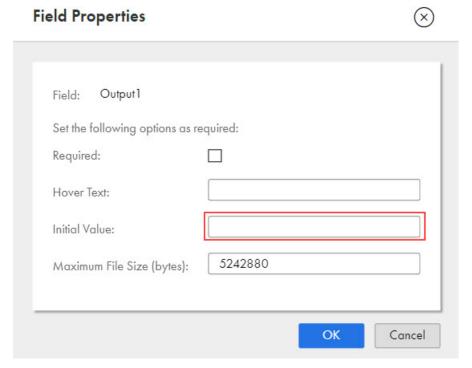
Process Designer

The Process Designer includes the following changes:

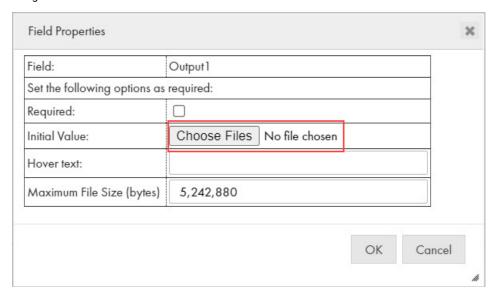
Start step

- The Select button that you use to select the process location is renamed to Browse.
- The Allowed Roles and Run As fields are removed from the Start step.
- After you enter a value in the input field, output field, or temporary field, you must click anywhere outside the row to save the value. Previously, you could press Enter to save the value.

• When you use the attachment or attachments data type in the output field or temporary field, if you edit the field, a text box is added to the **Initial Value** property as shown in the following image:

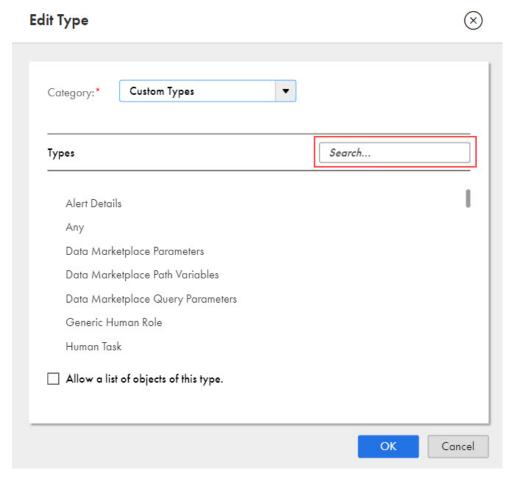


Previously, the **Initial Value** property contained the **Choose Files** option as shown in the following image:



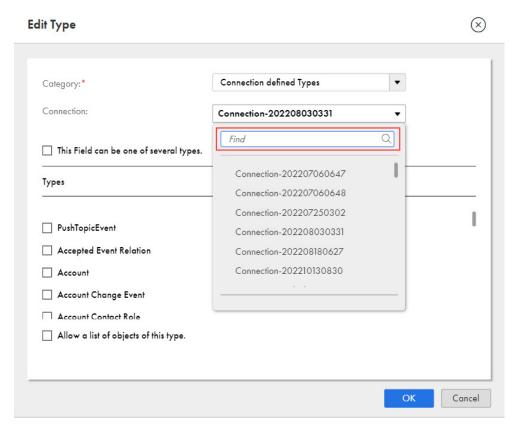
Assignment step

• The **Search** box is added for the **Custom Types** option in the **Edit Type** dialog box to easily search for a process object as shown in the following image:



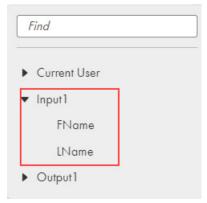
Previously, you could select the process object only by scrolling through the list.

• The **Find** box is added to the **Connection** field in the **Edit Type** dialog box to easily search for a connection as shown in the following image:

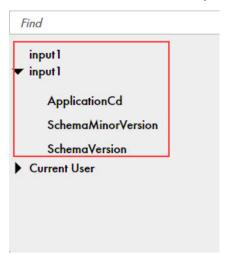


Previously, you could select a connection only by scrolling through the list.

• When you create a field in the Assignment step, the fields that contain a referenced process object appear as a single object along with the nested objects as shown in the following image:



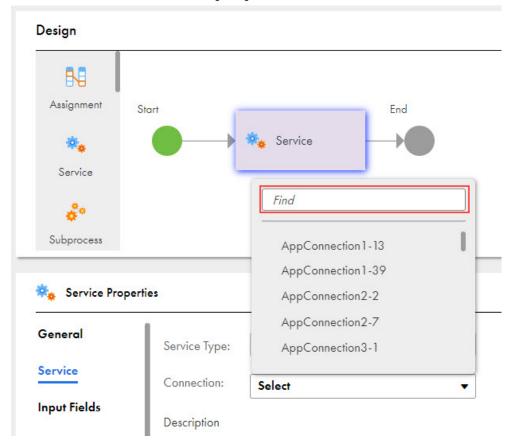
Previously, the field with the referenced process object had an additional entry, one as a parent object and another with the list of nested objects as shown in the following image:



Service step

• You can add multiple instances of the same message event to the Service step. Previously, you could add a message event only once.

• The **Find** box is added to the list to easily search for an existing connection, process, or system service action as shown in the following image:



Previously, you could select an object only by scrolling through the list.

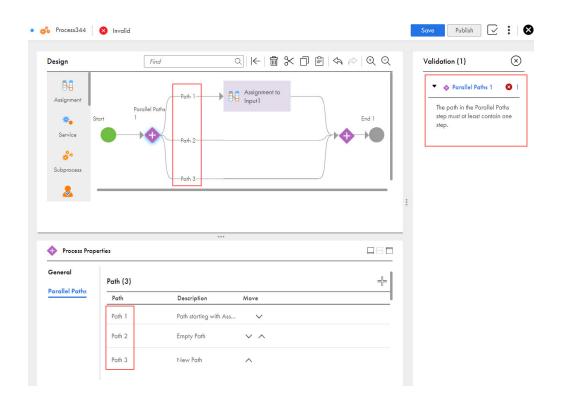
Wait step

• If you configure the step to continue after a wait period, you can select input fields, output fields, and temporary fields in the **Wait Period** field. Previously, you could select only fields related to the current user.

Parallel Paths step

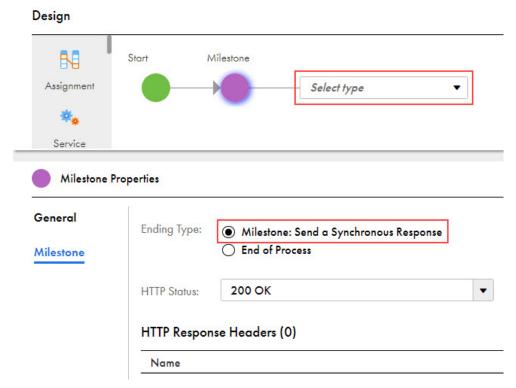
- When you use a Parallel Paths step, by default, path names such as Path 1, Path 2, and Path 3 appear for each path on the canvas. Previously, the paths did not show names.
- The path names in the properties panel start with Path 1. Previously, the path names started with Path 0.
- If multiple paths do not contain a step, a single validation message is displayed. Previously, a separate validation message appeared for each path that did not contain a step.

The following image shows the changes in the Parallel Paths step:



End step

When you set the Ending Type option to Milestone: Send a Synchronous Response, you get an option
to select the next step as shown in the following image:



Previously, if you set the ending type as **Milestone**: **Send a Synchronous Response**, the Milestone step was the end of the process.

Run Using

- In the Process Objects section, only the input fields that contain process objects appear.
 Previously, in addition to the input fields that contained process objects, output fields, and temporary fields were also listed.
- When you make changes to the input fields in the published process, you must manually refresh the
 Run Using dialog box to see the changes in the Process Input section.
 Previously, the input fields in the Process Input section were automatically refreshed even when
 changes to the input fields were not saved or published.
- When you make changes to the process input and cancel the changes without saving them, the changes persist.
 - Previously, the changes were discarded on cancellation.
- In the Process Designer, you can enter a single character in the Find box to start the search. You don't see
 an error message if the entered characters do not have matching results.
 Previously, you had to enter a minimum of two characters to enable search. If the characters entered did
 not have matching results, an error message was displayed.

Preview functionality is supported for evaluation purposes but is unwarranted and is not supported in production environments or any environment that you plan to push to production. Informatica intends to include the preview functionality in an upcoming release for production use, but might choose not to in accordance with changing market or technical circumstances. For more information, contact Informatica Global Customer Support.

Support for list of simple types in process objects

In a process object, you can configure the following list of simple data types for fields:

- Checkbox
- Date
- · Date Time
- Time
- Number
- Integer
- Tex

When you create a process object, you can define a comma-separated list of check box, date, date time, time, number, integer, and text values.

For more information about creating process objects using the list of simple types, see Design.

Preview functionality is supported for evaluation purposes but is unwarranted and is not supported in production environments or any environment that you plan to push to production. Informatica intends to include the preview functionality in an upcoming release for production use, but might choose not to in accordance with changing market or technical circumstances. For more information, contact Informatica Global Customer Support.

New features and enhancements

Application Integration includes the following new features and enhancements in this release:

Origin support in human tasks

When the X-EXECUTION-ORIGIN header is included while invoking a process, the origin can be set for the human task so that the human task appears in the task inbox of Informatica services such as Informatica MDM - Customer 360 Task Inbox, Application Integration Human Task Inbox, or Data Governance and Catalog Workflow Inbox.

Assignment override in human task assets

You can override the users and roles using a formula or field in a pre-defined human task asset. You can use expressions to override the users and roles. Using the expression editor, you can create simple expressions that only contain a field or complex expressions that include nested functions.

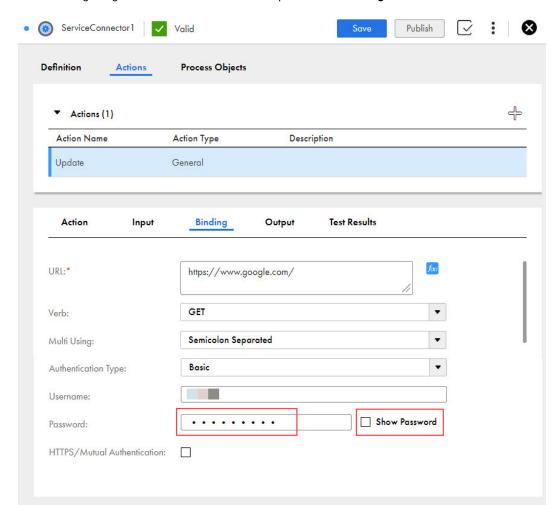
For more information about overriding the users or roles and using the expression editor, see Design.

Changed behaviors

Application Integration includes the following changed behaviors in this release:

Show password in a service connector

To improve security in service connectors, if you select the **Show Password** option on the **Binding** tab and save the service connector, when you reopen the service connector, the password is masked and the **Show Password** option is cleared by default.

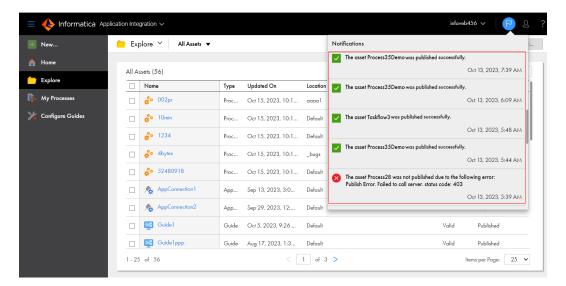


The following image shows the **Show Password** option on the **Binding** tab:

Previously, when you reopened the service connector, the **Show Password** option was selected and the password was displayed as plain text.

Status notifications for the publication of timed-out assets

If the Application Integration asset takes more than 100 seconds to publish, in addition to the timed-out message, Application Integration sends a success or failure notification to the logged-in user after the publication completes as shown in the following image:



Previously, if the asset publication was timed out, a timed-out message was displayed, and the publish job continued to run in the background. To check the publication status of the asset, you had to refresh the asset.

Support for valid application JSON formats in the content-type header for process invocation

You can use any valid application JSON format in the content-type header to invoke the REST endpoints for processes that run on the Cloud Server. For example, application/json, application/vnd.api+json, application/ld+json, and application/hal+json.

Previously, among all the JSON formats, you could use only the application/json content-type header for process invocation. If you used any other JSON content-type header, an error occurred.

CHAPTER 4

October 2023

The following topics provide information about new features, enhancements, changed behaviors, and upgrade tasks in the October 2023 release of Informatica Intelligent Cloud Services™ Application Integration.

Important notices

Effective in the October 2023 release, the following feature and changed behavior are available for preview:

Automatic reset of process tracing level

In a process that is configured to run on the Cloud Server, if you set the tracing level to **Verbose** or **Normal**, the tracing level will be automatically reset to **Fault** by the server, if necessary. This feature helps reduce the process execution time caused by the run-time logging.

For more information about setting the tracing level, see Design.

Preview functionality is supported for evaluation purposes but is unwarranted and is not supported in production environments or any environment that you plan to push to production. Informatica intends to include the preview functionality in an upcoming release for production use, but might choose not to in accordance with changing market or technical circumstances. For more information, contact Informatica Global Customer Support.

Additional restriction on process invocation that fails due to activity execution limit

If the process invocation fails due to an activity limit breach of 10,000, you can't run the process for the next 15 minutes and no new instance of the process deployment will be created during that time. When you run a process that does not have a loop breaker mechanism, an error occurs. You can review the process logs to find out the root cause of the activity limit breach.

You can resume the process execution after the 15-minute time limit expires or by republishing the process.

Previously, if the process failed due to an activity limit breach of 10,000, you could run the process immediately.

For more information about the activity execution limit restriction for process invocations, see Invoke.

Preview functionality is supported for evaluation purposes but is unwarranted and is not supported in production environments or any environment that you plan to push to production. Informatica intends to include the preview functionality in an upcoming release for production use, but might choose not to in accordance with changing market or technical circumstances. For more information, contact Informatica Global Customer Support.

New features and enhancements

Application Integration includes the following new features and enhancements in this release:

Watch the following What's New video to learn about the new features and enhancements in the October 2023 release:



Ability to create process objects by importing JSON files

You can import JSON files to easily create multiple large and hierarchical process objects that cover the data types used in the JSON payload.

With this feature, you can save time and effort because you do not have to manually create process objects.

For more information about creating process objects by importing JSON files, see Design.

Apache Camel for Application Integration

Application Integration has updated Apache Camel to version 3.14.

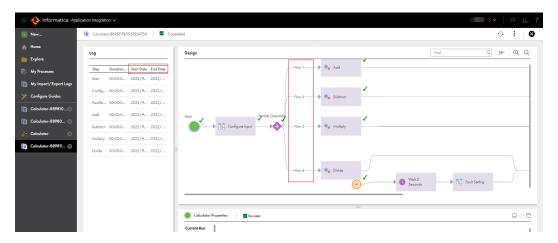
After your POD (Point of Deployment) is upgraded to the October 2023 release, you don't need to take any action.

My Processes page

The My Processes page includes the following changes:

- The Actions menu is added to the process instance row. It contains options to restart, delete, resume, suspend, and stop process instances.
- In the Process View Detail page, the Log area contains the Start Date and End Date fields.
- In the Process View Detail page, the Parallel Path step shows the sequence for each path.

The following image shows the changes on the Process View Detail page:



Stored procedure and multiple SQL query support in data access service connectors

When you create a data access service connector, on the **SQL Binding** tab, you can define multiple SQL queries and stored procedure calls per action to access the data from the data source.

For each of the SQL entries, you can define the name, SQL query, column case, type of SQL query, maximum number of rows, and maximum wait time in seconds.

For more information about creating multiple SQL queries, see Design.

Support for OData expand functionality

In data access service connectors, after you publish an app connection, you can use the OData expand parameter to perform nested queries on the data. You can query up to one level of a navigation property in a service call.

For more information about the OData expand parameter, see Design.

New XQuery functions in Miscellaneous section

You can use the following new XQuery functions under the Miscellaneous section:

XQuery function name	Description	Syntax
getOrganizationName	Returns the organization name in the context of the executing process, guide, service connector, or data access service connector. Note: If the process is published on a Secure Agent, you must restart the Process Server to get the organization name in the context of the executing process.	util:getOrganizationName()
getAssetName	Returns the name of the process or the guide that uses the function.	util:getAssetName()
getAssetLocation	Returns the location where the process or the guide that uses the function is stored. You can use the getAssetLocation function only in processes that run on the Cloud Server.	util:getAssetLocation()
getInstanceStartTime	Returns the start time of the running instance of the process or guide.	util:getInstanceStartTime()

For more information about these new XQuery functions, see Design.

Load balancing support for RabbitMQ connections

You can configure load balancing for RabbitMQ connections that run on a Secure Agent cluster.

For more information about configuring load balancing in a RabbitMQ connection, see RabbitMQ Connector Guide.

Support for extraction of JMS headers when invoking a process

When you invoke a process, in addition to the HTTP headers, you can use the following request context functions to get the header details from JMS messages:

- · getAllHeaders
- getDateHeader
- getHeader
- getHeaderNames
- · getHeaderOrDefault
- headerExists

When you use these functions to get the header details, the output will be the same for both HTTP headers and JMS headers.

For more information about these function, see Design.

Support for Kafka connections on the Cloud Server

You can create a Kafka connection on the Cloud Server and configure SSL and SASL authentication by uploading the SSL truststore file and keystore file.

After you publish the Kafka connection on the Cloud Server, you can start and stop event sources from the **Connections** page in Application Integration Console.

With this feature, you can save time and effort because you do not have to unpublish and republish the connection to stop and start the event-based processes.

For example, if the event source points to or returns corrupted data, and you do not want processes to consume that data, you can stop the event source associated with that endpoint. Thereafter, the processes published on that event source will not consume new messages. However, if you stop an event source when a process is running, the process continues to run in the background and completes gracefully.

Note: This feature is available only on the AWS PODs.

For more information about starting and stopping event sources in a Kafka connection that runs on the Cloud Server, see Connectors for Cloud Application Integration and Monitor.

Changed behaviors

Application Integration includes the following changed behaviors in this release:

Changes in single SQL query response format

In a data access service connector, with the introduction of multiple SQL queries support, the XML response for single and multiple SQL queries begins with the multiplataAccessResponse tag followed by the dataAccessResponse tag.

The following sample snippet shows the new XML response format:

```
<multiDataAccessResponse>
  <dataAccessResponse>
    <result statementId="SQL Name 1">
       <row>
         activevos
         <table_schema>public
          aeb4ptaskpa
         BASE TABLE
         <self_referencing_column_name/>
         <reference generation/>
         <user defined_type_catalog/>
         <user defined type schema/>
         <user_defined_type_name/>
          <is insertable into>YES</is insertable into>
         <is typed>NO</is_typed>
         <commit action/>
       </row>
    </result>
  </dataAccessResponse>
</multiDataAccessResponse>
```

Previously, when you made a single SQL query request, the corresponding XML response began with the dataAccessResponse tag.

The following sample snippet shows the previous XML response format:

For more information about single and multiple SQL queries, see Design.

Metadata changes in the response payload of data access service connectors

The following sample snippet shows the new format of the response payload:

Previously, the navigation property name also displayed references to the foreign key.

The following sample snippet shows the previous format of the response payload:

For more information about the response payload of data access service connectors, see Design.

Upgrade

The following topic provides information about the task that you must perform after you upgrade to the October 2023 release.

Process Server restart

As part of this release, updates were made to the Process Server service on the Secure Agent. The updates do not affect the service and the agent processes will continue to work as is. As a result of the deployment of the updates, you will see that the status of the Process Server service shows up as **Restart Required**.

If you have configured an upgrade restart schedule for the Process Server, the restart will happen automatically as per the schedule. Otherwise, by default, the restart will happen 7 days after your Point of Deployment (POD) upgrade.

If you would like to manually restart the Process Server at your own convenience and get the latest updates, perform the following steps:

- 1. Open the Administrator service and select Runtime Environments.
- On the Runtime Environments page, click the name of the Secure Agent.
 Note: You might have to expand the Secure Agent group to see the list of Secure Agents within the group.
- Click the **Details** tab.
- 4. In the Agent Service Start or Stop area, select the service as Process Server.
- 5. Click Stop.
- 6. Click **Start** to restart the Process Server service. After the service starts, the status changes to **Up and Running**. If the service fails to start, check the audit log to find the cause of the error.

For more information about Secure Agents, see Runtime Environments in the Administrator help system.

CHAPTER 5

July 2023

The following topics provide information about new features, enhancements, changed behaviors, and upgrade tasks in the July 2023 release of Informatica Intelligent Cloud Services[™] Application Integration.

New features and enhancements

Application Integration includes the following new features and enhancements in this release:

Watch the following What's New video to learn about the new features and enhancements in the July 2023 release:



Ability to configure a logging data source on a Secure Agent

You can configure a separate logging data source on a Secure Agent to redirect process logging from the existing database to the data source, and thereby reduce the load on the existing database.

Note: After configuring a separate logging data source on a Secure Agent, you must restart the Process Server for the change to take effect.

For more information about the logging data source, see Secure Agent Services in the Administrator help system.

Additional fields in process objects

The process object editor and service connector editor include the following new fields for the text, date, time, date time, integer, and number data types:

- Character length and text format for the text data type
- Date range for the date data type
- Date time range for the date time data type
- · Time range for the time data type
- Minimum and maximum values for the integer data type
- Minimum and maximum values for the number data type

For more information about process objects, see Design.

Guide execution URL

After you save and publish a guide, you can view the execution URL in the **Properties Detail** page of the guide. You can use the execution URL to run the guide.

For more information about publishing and running guides, see Invoke.

Guide generation in human task assets

When you create a human task asset, you can instantly create a new guide with all the input fields, output fields, and outcomes that you define in the asset. After the guide is generated, you can further configure the guide and publish the guide to use it. With this feature, you can avoid the manual effort of creating a guide.

For more information about generating guides, see Design.

Process object support in human task assets

When you create a human task asset, you can include process objects in the input fields and output fields. You must create a process object in Application Integration and then use the object in the human task asset. With this feature, you could have a group that contains various details such as the name, address, phone number, and other information instead of creating separate fields for each kind of demographic data.

For more information about using process objects in human task assets, see Design.

Improved security in data access service connector

When you create a data access service connector, you can prevent or mitigate an SQL injection attack that can happen through malicious input parameters. To achieve this, configure the new **Check SQL Injection** field in the data access service connector page. You must also configure the new **Check SQL Injection** field in the app connection that uses the data access service connector. For more information about data access service connectors, see *Design*.

OAuth authentication support in SMTP Service

In Application Integration Console, you can select OAuth authentication as one of the authentication types for the SMTP service. OAuth helps you to share specific data with an application while keeping the user names, passwords, and other information private.

You can configure OAuth settings such as the authorization URL, token URL, client ID, client secret, and scope. You can also view the authorization status and the most recent time when the authorization was completed.

For more information about SMTP services, see Design.

Support for list of simple types in guides

In a guide, you can configure the following list of simple data types for input fields, output fields, and temporary fields:

- Checkbox
- Date
- · Date Time
- Time
- Number
- Integer
- Text

When you create a guide, you can define a comma-separated list of check box, date, date time, time, number, integer, and text values.

For more information about creating guides using the list of simple types, see Design.

Salesforce enhanced domain support in guides

You can open guides in Community Sites that are enabled with Salesforce enhanced domain.

For more information about Salesforce guides, see Salesforce and Application Integration.

Support for XML data type in service connectors

When you create a service connector, you can define input fields and output fields with the XML data type to pass XML values directly to the fields.

For more information about using the XML data type in service connectors, see Design.

Table filters in data access service connector

When you create a data access service connector, you can filter the tables by providing the name of a schema, the tables to be included in the metadata, and the tables to be excluded in the metadata. You must enter similar details in the app connection that uses the data access service connector to view the appropriate results.

For more information about data access service connectors, see Design.

Trunc function for numbers in Miscellaneous section

You can use the new xquery trunc function under the **Miscellaneous** section to truncate numbers to a specific digit based on the number of decimal places specified by the precision. Use the following syntax for the trunc function:

Util:trunc(arg, precision)

For example, the following expression returns 2345.75 as the result:

```
util:trunc(2345.7535, 2)
```

For more information about the trunc function, see Design.

Changed behaviors

Application Integration includes the following changed behaviors in this release:

Elimination of IP address allowlisting

You do not need to manually add the Application Integration IP addresses to the trusted IP ranges on the **Organization** page in Administrator.

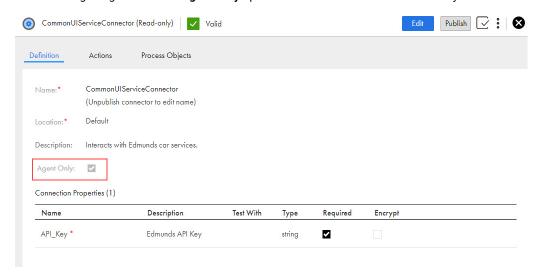
Previously, if your organization used Informatica Intelligent Cloud Services[™] and Application Integration, and you used a protective firewall, you had to add the corresponding domain names or IP address ranges to the trusted IP ranges.

For more information about allowlisting of IP addresses, see Allowlisting IP Address Ranges for Application Integration.

Service connectors

Service connectors include the following changes:

- You can click anywhere on a row containing a field to edit all the field values at once. After you enter the
 value, click anywhere outside the row or press Enter to save the value in the row. Previously, you could
 click only one value at a time to edit.
- When you view a service connector in read-only mode, the Agent Only option value appears in the form of a check box. Previously, the value appeared as text, that is, true or false.
 The following image shows the Agent Only option in a service connector in read-only mode:



Upgrade

The following topic provides information about the task that you must perform after you upgrade to the July 2023 release.

Process Server restart

As part of this release, updates were made to the Process Server service on the Secure Agent. After you upgrade to this release, the Process Server will restart automatically.

This will cause downtime and no processes will be triggered including scheduled processes until the Process Server is up and running.

For information about the upgrade process for major and minor releases, see the following Knowledge Base article:

https://knowledge.informatica.com/s/article/iics-runtime-continuity-faq?language=en_US

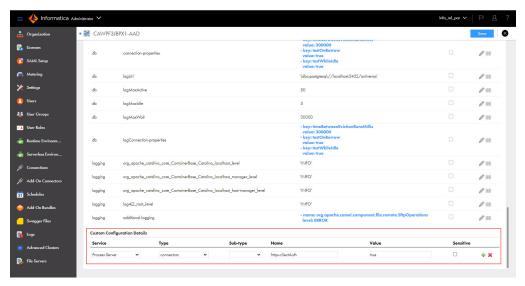
Enabling mutual authentication for Process Server

When you upgrade the Process Server with the latest package, the mutual authentication changes made to the previous version of the server.xml.mustache file are lost. Moreover, a downtime is needed for the new upgrade.

Instead of manually updating the server.xml.mustache file every time you restart the Process Server with the latest package, you can enable mutual authentication for the Process Server from Administrator.

To enable mutual authentication from Administrator, perform the following steps:

- 1. In Administrator, select Runtime Environments.
- 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.
- 3. Click the **Details** tab.
- 4. In the upper right corner, click Edit.
- 5. Scroll down to the Custom Configuration Details area.
- 6. If there are custom properties already configured, click the Add icon to add a new property row.
- 7. Select the service as Process Server.
- 8. Select the configuration property type as **connectors**.
- 9. Enter the property name as https-clientAuth and the value as true as shown in the following image:



10. Click Save.

The status of the Process Server service shows up as ${\bf Restart} \ {\bf Required}.$

11. Restart the Process Server for the change to take effect.

For information about manually updating the server.xml.mustache file to enable mutual authentication for Process Server, see the following community article:

https://knowledge.informatica.com/s/article/611562?language=en_US

CHAPTER 6

April 2023

The following topics provide information about new features, enhancements, and upgrade tasks in the April 2023 release of Informatica Intelligent Cloud Services[™] Application Integration.

New features and enhancements

The April 2023 release of Informatica Intelligent Cloud Services[™] Application Integration includes the following new features and enhancements.

New features and enhancements

Application Integration includes the following new features and enhancements:

Ability to activate and deactivate APIs

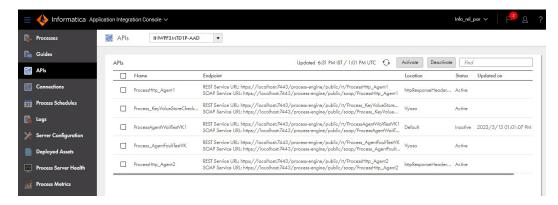
You can activate and deactivate APIs of published processes that use the REST/SOAP binding. With this feature, you can save time and effort because you don't have to unpublish and republish a process to deactivate and activate the API. You can activate and deactivate the API, that is, the REST and SOAP endpoints, from the **APIs** page in Application Integration Console.

For example, consider a bank that offers fund transfers on its web portal through APIs developed using Application Integration. The bank uses an Oracle database to store transaction information for future audits and monitoring.

During database maintenance, the bank wants to temporarily stop transactions to avoid potential issues with incoming requests.

In this case, the bank can filter and find all APIs that enable fund transfers and deactivate them. If customers invoke the deactivated APIs during the downtime, they will see a 503 Service Unavailable or an equivalent message. After maintenance is complete, the APIs can be activated to resume fund transfers.

The following image shows the **APIs** page:



Note: You can use this feature 7 days after your POD upgrade and the Process Server restart.

For more information about activating and deactivating APIs of published processes, see Monitor.

Ability to configure invoke work manager thread pool settings

For process invocations, you can independently control the number of threads used by work manager thread pool size on the **Server Configuration** page in **Application Integration Console**.

You can configure separate work manager thread pool settings for process invocations that run on Secure Agents.

For more information about the invoke work manager thread pool settings, see *Monitor*.

Ability to send a body for a DELETE request in service connectors

You can send a body for a **DELETE** request in service connectors. In addition to the **POST**, **PUT**, and **PATCH** verbs, you can now set the binding type for the **DELETE** verb in service connectors. When you select the binding type as **Custom**, a **Body** field appears where you can type the request to be sent to the service.

For more information about the verbs that you can use with service connectors, see Design.

API version 56.0 support in Salesforce connection

Application Integration supports version 56.0 of the Salesforce API for password and OAuth based authentication when you create a new Salesforce connection. With this feature support, you can use various new data objects and metadata types offered by Salesforce API version 56.0. For example, you can use the ContactPointAddress object that represents a contact's billing or shipping address corresponding to an individual account.

Note: To use the new feature for a Salesforce app connection, you must upgrade the managed package that is installed in Salesforce.

For more information about upgrading the managed package in Salesforce, see https://docs.informatica.com/integration-cloud/application-integration/current-version/salesforce-and-application-integration/salesforce-managed-package/upgrading-the-salesforce-managed-package.html.

For more information about Salesforce objects and services, see Salesforce Connector Guide.

Load balancing support for FTP connections

You can configure load balancing in an FTP connection. When you enable the load balancing option, the Process Server distributes the routes across different Secure Agent machines in a Secure Agent cluster to ensure load balancing.

You can configure load balancing for FTP connections that run on a Secure Agent cluster.

For more information about configuring load balancing in an FTP connection, see FTP Connector Guide.

OAuth authentication support for Email connections

You can select OAuth authentication as one of the authentication types for the Email app connection. You can configure OAuth settings such as the authorization URL, token URL, client ID, client secret, and scope. You can also view the authorization status and the most recent time when the authorization was completed. You will then be routed to create a new Microsoft Outlook account or use an existing Microsoft Outlook account to complete the authorization process.

For more information about OAuth authentication support for Email app connection, see *Email Connector Guide*.

OData support for Data Access Service Connector

You can enable the OData protocol in a Data Access Service Connector to access data services. To use this feature, enable the **Use OData** option on the **Definitions** tab of the connector creation page. On the **Actions** tab, you can also configure the following properties:

- · Column case for the SQL query
- Maximum number of rows that the SQL transformation can return. The maximum number of rows can't exceed 10,000 rows.
- Maximum length of time in seconds that a database client waits for a response from the database before timing out the session

After you enable the **Use OData** option in a data access service connector, you can enable OData and specify the allowed users and groups for OData in the connection that uses the data access service connector. After you publish the app connection, you can view the OData Service URL and OData Swagger URL in the **Properties Detail** page of the app connection.

Note: You can use this feature 7 days after your POD upgrade and the Process Server restart.

For more information about enabling the OData protocol in a Data Access Service Connector, see Design.

Support for certificate-based TLS or SSL authentication with RabbitMQ Connector

You can configure TLS or SSL authentication for a RabbitMQ Connector using a keystore file stored on the Secure Agent machine. The keystore file contains the keys and certificates to establish two-way secure communication with the RabbitMQ broker.

For more information about using client certificates with RabbitMQ Connector, see *RabbitMQ Connector Guide*.

Changed behavior

The April 2023 release of Informatica Intelligent Cloud Services Application Integration includes the following changed behaviors.

Process objects

Process objects include the following changes:

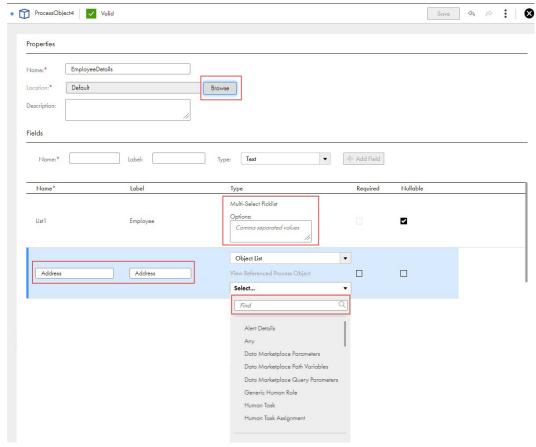
- The Select button to select the process object location is renamed to Browse.
- The **Find** box has been added to the **Object List** or **Reference** type to easily search for the process object. Previously, you could select the process object only by scrolling through the list.

• The objects in the **Picklist** and **Multi-Select Picklist** type can be separated using a comma. Previously, the objects were separated using a semicolon.

Note: The existing fields with **Picklist** and **Multi-Select Picklist** types that include semicolon separators will not be impacted.

- You can drag and drop the row that contains a field to order fields in the process object. Previously, the
 Up arrow and Down arrow icons were available against each row to order fields.
- You can click anywhere on the row containing a field to edit all the field values at once. Previously, you could click only one value at a time to edit.

The following image shows the changes in the process object fields:



For more information about process objects, see Design.

Upgrade

The following topic provides information about the task that you must perform after you upgrade to the April 2023 release.

Process Server restart

As part of this release, updates were made to the Process Server service on the Secure Agent. The updates do not affect the service and the agent processes will continue to work as is. As a result of the deployment of the updates, you will see that the status of the Process Server service shows up as **Restart Required**.

If you have configured an upgrade restart schedule for the Process Server, the restart will happen automatically as per the schedule. Otherwise, by default, the restart will happen 7 days after your Point of Deployment (POD) upgrade.

If you would like to manually restart the Process Server at your own convenience and get the latest updates, perform the following steps:

- 1. Open the Administrator service and select Runtime Environments.
- 2. On the Runtime Environments page, click the name of the Secure Agent.

Note: You might have to expand the Secure Agent group to see the list of Secure Agents within the group.

- 3. Click the Details tab.
- 4. In the Agent Service Start or Stop area, select the service as Process Server.
- 5. Click Stop.
- 6. Click **Start** to restart the Process Server service. After the service starts, the status changes to **Up and Running**. If the service fails to start, check the audit log to find the cause of the error.

For more information about Secure Agents, see Runtime Environments in the Administrator help system.

Upgrading the Process Server PostgreSQL database to version 14.6

You can upgrade the Process Server PostgreSQL database from version 12.4, 12.6, or 13.5 to version 14.6. Version 14.6 offers improved security, performance, and scalability.

You can use the replication technique to easily upgrade the PostgreSQL database for a Secure Agent. For more information about upgrading the PostgreSQL database using the replication technique, see Upgrading the PostgreSQL database using the replication technique.

You can also choose to upgrade at your own convenience by manually running scripts provided by Informatica. The scripts take a backup of the existing database version so that you can restore to the old database version in case of any upgrade issue.

For more information about upgrading the PostgreSQL database, see the following community article:

https://network.informatica.com/docs/DOC-18945

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