



Informatica® Cloud Application Integration  
December 2021

# Introduction

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December 2021

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# Preface

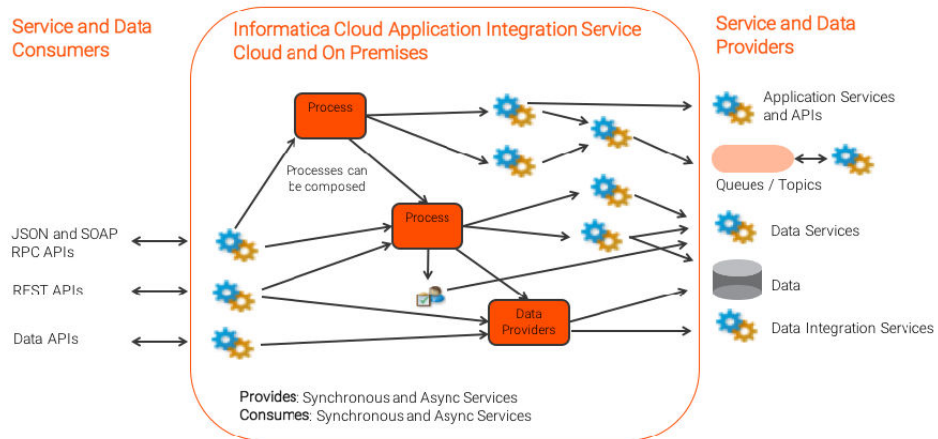
Read *Introduction* to learn about the Informatica Intelligent Cloud Services™ Application Integration and Application Integration Console services.

# CHAPTER 1

## Overview

Informatica Intelligent Cloud Services<sup>SM</sup> provides an event-driven and service-oriented offering that encompasses event processing, service orchestration, and process management. Use Application Integration for your design time needs and Application Integration Console for you run-time needs.

The following image shows how Application Integration functions:



## CHAPTER 2

# Components

Use the following components to design, manage, and maintain assets:

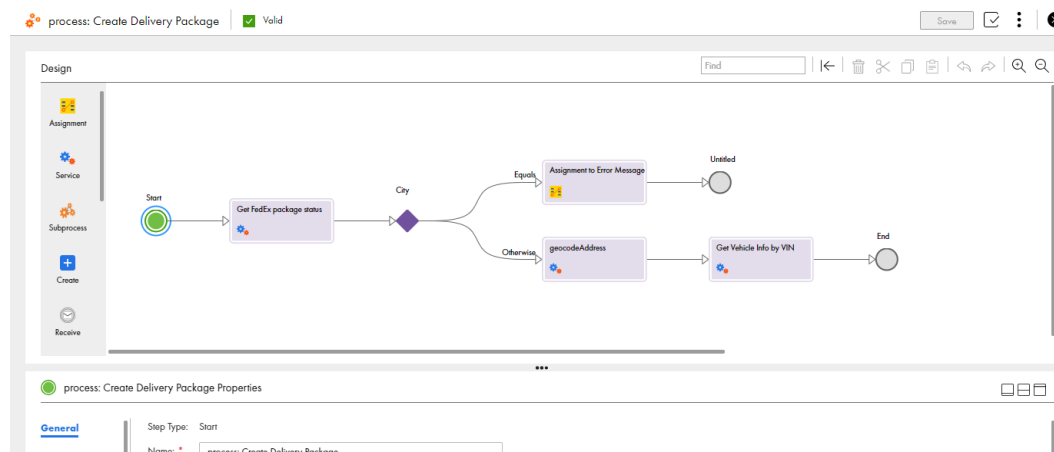
- Designer
- Process Server
- Application Integration Console
- Cloud Server
- Process Developer

## Designer

The Designer in Application Integration is an easy-to-use web interface that you use to create processes and guides.

When used for process design, the Designer is called Process Designer. When used for guide design, the Designer is called Guide Designer.

The following image shows the Process Designer:



When you create a new process or guide, you see Start and End steps connected by a line. Drag and drop steps from the palette on to the canvas to create the business logic for your use case.

With the Designer, you can use powerful features like decision making, parallel processing, and error handling using a simple drag-and-drop and point-and-click web interface.

In the backend, the Designer uses the Business Process Model and Notation (BPMN).

# Process Server

Process Server is the Secure Agent component that executes Application Integration tasks.

You can deploy a process, connection, or service connector to a Secure Agent or to Cloud Server. If you deploy to the Secure Agent, Process Server carries out the execution when you invoke the asset.

**Note:** You can prevent potential language-related issues related to decimal conversion and ensure that the correct JVM argument is added during execution by configuring the JVM property to include - `Duser.language=en` in Administrator.

For more information about Process Server, see the *Application Integration Process Server* section in the *Administrator* help.

# Application Integration Console

The Application Integration Console service that provides monitoring and management capabilities for Application Integration.

Depending on your roles and permissions, you can view and configure settings for Process Server or Cloud Server.

Use the Application Integration Console to perform the following tasks:

- View invoked processes and guides. You can view a detailed BPEL view of invoked processes and perform debugging.
- Create and view process schedules.
- View server and deployment logs.
- Configure Processes Server and Cloud Server. This includes server properties, logging properties, storage properties, queues, and system services
- View deployed assets and contributions.
- View XML details of all resource.
- Monitor Process Server performance.
- View alarm and receive queue metrics.

# Cloud Server

Cloud Server is an Informatica-hosted cloud engine that you can deploy assets to.

You can deploy a process, connection, or service connector to a Secure Agent or to Cloud Server. Typically, you deploy assets that contain only cloud-based applications to Cloud Server. If an asset needs to access an on-premise database, you need to deploy the asset to a Secure Agent.

For example, you can only deploy a JDBC connection to a Secure Agent.

# Process Developer

Process Developer is an on-premise application for business process automation.

Use Process Developer, an Eclipse-based tool, to create processes that you can deploy in the cloud or on-premise. Process Developer uses the Business Process Model and Notation (BPMN), Business Process Execution Language (BPEL) and BPEL Extensions for People (BPEL4People) standards.

While you can use Process Designer or Process Developer to create processes, Informatica recommends that you use Process Designer.

For documentation and download instructions, information, see the *Process Developer* section.



# CHAPTER 3

## Features

Create assets and use multiple features with Application Integration and Application Integration Console

### Assets

Create different assets based on your use-case.

You can create the following asset types in Application Integration:

#### **Process**

Create a process to automate a business process. If you create an HTTPS-based process, you get REST and SOAP APIs that you can invoke, embed, or share. If you create an event-based process, the process executes when the event happens.

#### **Guide**

Create a guide to automate flows that a user might need to go through often. You run a guide within Application Integration. If you have the Salesforce managed package, you can run certain guides within your Salesforce interface.

#### **Service Connector**

Create a service connector to interact with programs and services that expose a REST or SOAP. If you have a WSDL or Swagger JSON file that contains the definition of a service connector, import the file to create a service connector.

#### **Connection**

Create a connection to use a service connector in a process or a guide.

#### **Process Object**

Create a process object to group sets of structured data. You can use process objects in other assets. You can also generate process objects when you create a service connector.

# Message Exchange Patterns

Use a variety of message exchange patterns in Application Integration to implement any cloud or hybrid solution.

Application Integration uses the following message exchange patterns:

- Synchronous Request/Response
- Asynchronous Request/Response
- One-way Fire and Forget
- Queuing, Publish, and Subscribe
- WS-Reliable Messaging

# Versioning

Use the contribution versioning feature to perform different tasks to manage processes.

Application Integration packages the contents of a process in to a Service Component Architecture (SCA) contribution.

You can view contribution details in the Application Integration Console.

Use contributions to perform the following tasks:

- Manage process versions and process components like WSDL, XSD, HTML, and process definitions.
- Delete old process instances and old resources by deleting the contribution.
- Maintain your own resources and ensure that they do not clash with resources of other developers.
- Rollback the current contribution to an earlier version.

# Fault Handling

Use fault handling to handle error conditions.

You can use the following methods to perform fault handling:

- Use a boundary event to catch faults.
- Use output fields or a Throw step to return faults.

For example, create a process that accepts two numbers as input and performs four mathematical operations on them: addition, subtraction, division, and multiplication.

If you do not enable fault handling and invoke the process with the numbers 5 and 0, you see an HTTP 500 error. This is because of division by zero. In addition, you do not see a result the addition, subtraction, or multiplication results.

If you enable fault handling and invoke the process with the numbers 5 and 0, you see the following response:

```
{"Sum": "5", "Difference": "5", "Product": "0"; "Quotient": "Fault"}
```

# Monitoring

Use built-in monitors to keep a check on the following artifacts and services:

- Deployed processes and guides
- Alarm and receive queues
- Contribution deployment logs
- Process Server performance

In addition to the Application Integration Console, Secure Agent logs are available on your local system.

## CHAPTER 4

# Connectivity

You can use multiple connectivity options with Application Integration.

## Service Connectors

Create a service connector to access interact with programs and services that expose an API.

You can create a service connector in the following ways:

- Specify a REST or SOAP API and defining other properties.
- Import a WSDL or Swagger JSON file that contains the definition of a service connector

## Connectors

Use built-in connectors to access popular applications and services.

You do not need to always configure service connectors. Based on your license, some connectors come with Application Integration.

Application Integration offers built in connectors that can be grouped into the following categories:

- Connectors designed to access data to and from the cloud. The JDBC, Workday, SAP BAPI, OData, and Salesforce connectors are in this category.
- Message-based connectors designed so you can configure queue-based message brokers like ActiveMQ and JMS. The AMQP and Amazon SQS connectors are in this category.
- Listener-based connectors that you configure to monitor file-based systems. You can monitor systems for files, objects on a file system, and other types of storage. You can retrieve files and process the contents of the files or perform file operations like moving or reading file metadata. For example, you can parse comma-delimited file, make the file contents available in a process object as XML, and archive the processed file in another directory. The file or object metadata, such as number of rows or time stamp, is also available in a process object. The File, FTP, and Amazon S3 connectors are in this category.
- Listener-based connectors that you configure to access event services. You can perform tasks like reading XML from a process object and creating comma-delimited files or reading binary files from a process stream and writing that binary content to the target file system.

With listener-based connectors, you need to define the following properties:

- Event Sources, which act as consumers or start events to trigger processes.
- Event Targets, which act as event services that you can use to invoke external systems

## Messaging

Use the messaging options in Application Integration according to your business need.

Use the built-in JMS, AMQP, and AWS SNS/SQS messaging services for queue and topic processing.

## System Services

You can use Application Integration system services to access data without creating a service connector or a connection.

Application Integration provides the following system services for data access:

- Data Access Service. Use this service for direct SQL or Stored Procedure execution.
- Email Service. Use this service to send emails.
- Shell Service. Use this service to execute shell scripts and utilities.

## OData Provider

Application Integration has a built-in OData provider.

Use the built-in OData provider to enable OData access to internal data sources like JDBC and Salesforce. OData clients such as Salesforce Lightning Connect can access OData streams over the Web and on premises.