

# **Salesforce Integration with SAP Signavio Process Intelligence Configuration Guide**

For SAP Integration Suite

Version 1.0.3

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# 1 Prepackaged Content Introduction

## 1.1 Introduction

This document provides an overview of the artifacts delivered as part of the Salesforce Integration with SAP Signavio Process Intelligence Configuration Guide. The document discusses the common configuration steps needed before deploying the Integration Flows within the package. Read this guide carefully before configuring the integration content.

## 1.2 Coding Samples

Any software coding and/or code lines/strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. We do not warrant the correctness and completeness of the Code given herein.

## 1.3 Internet Hyperlinks

The documentation may contain hyperlinks to the Internet. These hyperlinks are intended to serve as a hint about where to find related information. We do not warrant the availability and the correctness of this related information or the ability of this information to serve a particular purpose.

## 1.4 Overview

The integration of Salesforce and SAP Signavio Process Intelligence processes can be customized. You can customize this process as per business requirements by making adjustments for different components, including adjustments to:

- Integration flow externalized parameters,
- SAP Signavio Process Intelligence setup,
- Value Mappings to modify entity, and field as per requirement.



If you make modifications to the original integration flows in this package, subsequent developer updates to the package might not reflect as intended. Therefore, take this into consideration while altering any content.

# 2 Preparing the Systems for Integration

## 2.1 Prerequisites

To configure the integration content using this guide, you need to have access and authorizations to the systems listed below.

## 2.2 Access Requirements

- Salesforce Tenant Details
- SAP Integration Suite Tenant Details.
- SAP Signavio Process Intelligence Tenant Details

## 2.3 Authorization Requirements

- Salesforce Details
- SAP Integration Suite Tenant Details.
  - AuthGroup.IntegrationDeveloper
- SAP Signavio Process Intelligence Tenant
  - Appropriate authorizations to connect to the SAP Signavio Process Intelligence Tenant.

## 2.4 Adapter Installation

Installing the Salesforce adapter for SAP Integration Suite is a prerequisite to using this Integration Package.

For more information about the Salesforce Adapter, see [Salesforce Adapter for SAP Integration Suite](#).

For information about Adapter installation, see [Consuming Integration Adapters from SAP Business Accelerator Hub](#).

# 3 Salesforce to SAP Signavio Process Intelligence Content Configuration

Salesforce, SAP Signavio Process Intelligence, and SAP Integration Suite need to be configured and prepared before the integration content package can be configured and deployed.

## 3.1 Configuration in Salesforce

Before using Salesforce, you must configure a Security Token and OAuth Credentials. This helps you to establish a secure authentication with Salesforce.

For more information, see [Configure Security Token and OAuth Credentials in Salesforce tenant](#).

## 3.2 Configuration in SAP Signavio Process Intelligence

You are required to ensure activation of Ingestion API in SAP Signavio Process Intelligence. Activating the Ingestion API by creating a connection to SAP Integration Suite allows data transfer from an integration flow in SAP Integration Suite to SAP Signavio Process Intelligence for potential Process Mining activities.

For more information, see [API activation in SAP Signavio Process Intelligence](#).

## 3.3 Value Mapping Configurations

As part of the integration content package, you are provided the following pre-configured Value Mappings:

### 3.3.1 Salesforce to SAP Signavio Process Intelligence - Entity Input Table

A "List of entities" that needs to be ingested into SAP Signavio Process Intelligence is present in this mapping table.



You can add new entities, however for execution ensure you make the required modifications in the relevant integration flows.

The entities present in the package include:

Salesforce, EntityName
Account
Lead
Opportunity
Quote
Task
LeadHistory
OpportunityFieldHistory
QuoteHistory
User

### 3.3.2 Salesforce to SAP Signavio Process Intelligence - Entity Fields Inclusion Value Mapping

This mapping table contains a comma-separated "list of fields" that must be extracted for each entity in the Entity Input Table. The fields included in this list appear in the SAP Signavio Process Intelligence target after an entity is replicated.



You must configure this list to add additional fields if required. These are essentially Salesforce API fields.

Example: List of fields for the LeadHistory entity

Salesforce, EntityName	Signavio, InclusionFields
LeadHistory	Id, LeadId, CreatedById, CreatedDate, Field, OldValue, NewValue

### 3.3.3 Salesforce to SAP Signavio Process Intelligence - Entity Query Filters

This mapping table contains the custom Salesforce query filter expression for the fields. Below is a sample example for QueryFilter for LeadHistory:

Salesforce, EntityName	Salesforce, QueryFilter
LeadHistory	Field IN ('Status', 'Owner', 'OwnerId', 'LeadSource', 'ConvertedOpportunityId', 'Company', 'City', 'Industry', 'Title', 'IsPriorityRecord', 'Rating')

### 3.3.4 Salesforce to SAP Signavio Process Intelligence - Entity Start Date Value Mapping

This mapping table contains the execution `StartDate` for each entity in the Entity Input Table.

Example: `StartDate` for the `QuoteHistory` entity

Salesforce, EntityName	Signavio, StartDate
QuoteHistory	2024-06-06T00:00:00Z

### 3.3.5 SAP Signavio Process Intelligence Tables - Fieldname Datatype Value Mapping

This mapping table contains an entity-wise list of field names and data type mappings for the data to be populated in the SAP Signavio Process Intelligence target.

Example: Fieldnames and Datatypes for `Table_Quote` table in SAP Signavio Process Intelligence

Table_Quote, FieldName	Signavio, Datatype
QuoteId	String
CreatedDate	Long
LastUpdateDate	Long
CreatedBy	String
OwnerId	String



You must configure this list to add additional fields if required. For execution ensure you make the modifications needed in the relevant mappings.

## 3.4 Configuration in SAP Integration Suite

This section discusses Integration flow settings, prerequisites, parameters of the Sender and Receiver systems, and other details specific to each integration flow.

To work with the integration flows of this package, copy the prepackaged integration flow scenario to your workspace. Then configure the integration flows. Finally, to activate the integration flows, deploy them.

### 3.4.1 Configuration in SAP Business Technology Platform (SAP BTP) Connectivity

You need to configure inbound communication required to set up the connection between a remote sender system and SAP Integration Suite.

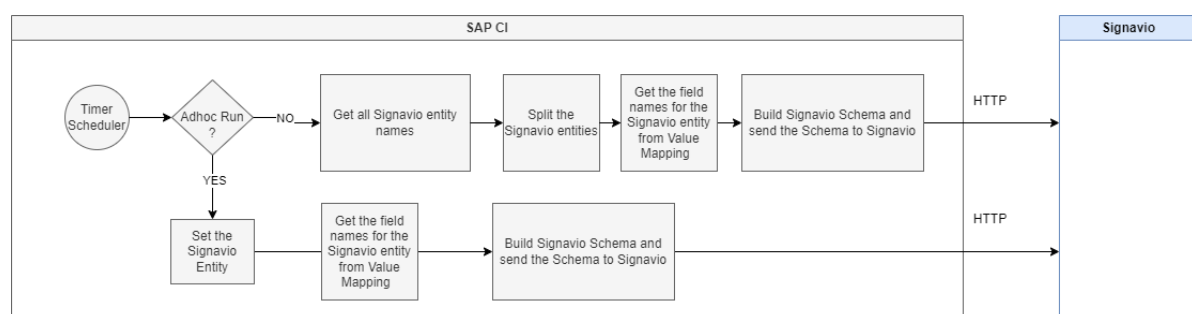
For more information, see [Creating Service Instance and Service Key for Inbound Authentication | SAP Help Portal](#).

### 3.4.2 Configuring Integration flows: Salesforce Integration with SAP Signavio Process Intelligence Package

This section contains configuration details for integration flows under Salesforce Integration with SAP Signavio Process Intelligence Package.

#### 3.4.2.1 Salesforce to SAP Signavio Process Intelligence - Create Tables

This integration flow is a one-time preparatory step before the actual entity replication. This flow is used to create tables in SAP Signavio Process Intelligence. A high-level flow is given below.



These objects serve as target tables for entities that are replicated from Salesforce to SAP Signavio Process Intelligence.



It is recommended to allow at least 15 minutes for this integration flow to execute before the entity replication integration flow is triggered.

## Purpose

To review the configuration parameters of the integration flow - **Salesforce to SAP Signavio Process Intelligence - Create Tables**

## Procedure

1. Open **Salesforce to SAP Signavio Process Intelligence - Create Tables** integration flow and click on configure.
2. Click on the **Timer** tab to review (or modify if needed) scheduling parameters.

Configure "Salesforce to SAP Signavio Process Intelligence - Create Tables"

Timer: Start Timer [StartEvent\_28769097]

Run Once

Schedule on Day

Schedule to Recur

Advanced

Schedule on Day

On Date: 08/16/2024

On Time: 10:43 AM

Every: 1 min

Between: 00:00 and 01:00

Time Zone: (UTC 0:00) Greenwich Mean Time(Etc/GMT)

Throw exception on schedule expiry

- **Run Once:** integration flow will be executed only once, can be used for the initial load.
- **Schedule on Day:** integration flow will be executed on a specific date/time.
- **Schedule on Recur:** integration flow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).



By default, the integration flow has been configured to **Run Once**.

For more information about Scheduling, see [Configuring Timer](#).

3. Click on the **Receiver** tab to review (or modify if needed) connection parameters. For parameter specific descriptions, see [Parameter Descriptions](#).

Configure "Salesforce to SAP Signavio Process Intelligence - Create Tables"

Timer **Receiver** More

Receiver: Mail

Adapter Type: Mail

Address: smtp.host.com:587

Proxy Type: Internet

Timeout (in ms): 30000

Protection: STARTTLS Optional

Authentication: Plain User/Password

Credential Name: Secure\_Cred

From: email@abc.com

To: email@abc.com

Cc:

- Switch to **More** tab to view execution options for creating objects in SAP Signavio Process Intelligence. For parameter specific descriptions, see [Parameter Descriptions](#).

Configure "Salesforce to SAP Signavio Process Intelligence - Create Tables"

Timer Receiver **More**

Type: All Parameters

AdhocEntity:

EnableMailNotification: TRUE

ExceptionLogging: TRUE

IflowName: Salesforce to SAP Signavio Process Intelligence - Create Tables

IflowPackageName: Salesforce Integration with SAP Signavio Process Intelligence

ReceiverBodyLogging: TRUE

ReceiverHeaderLogging:

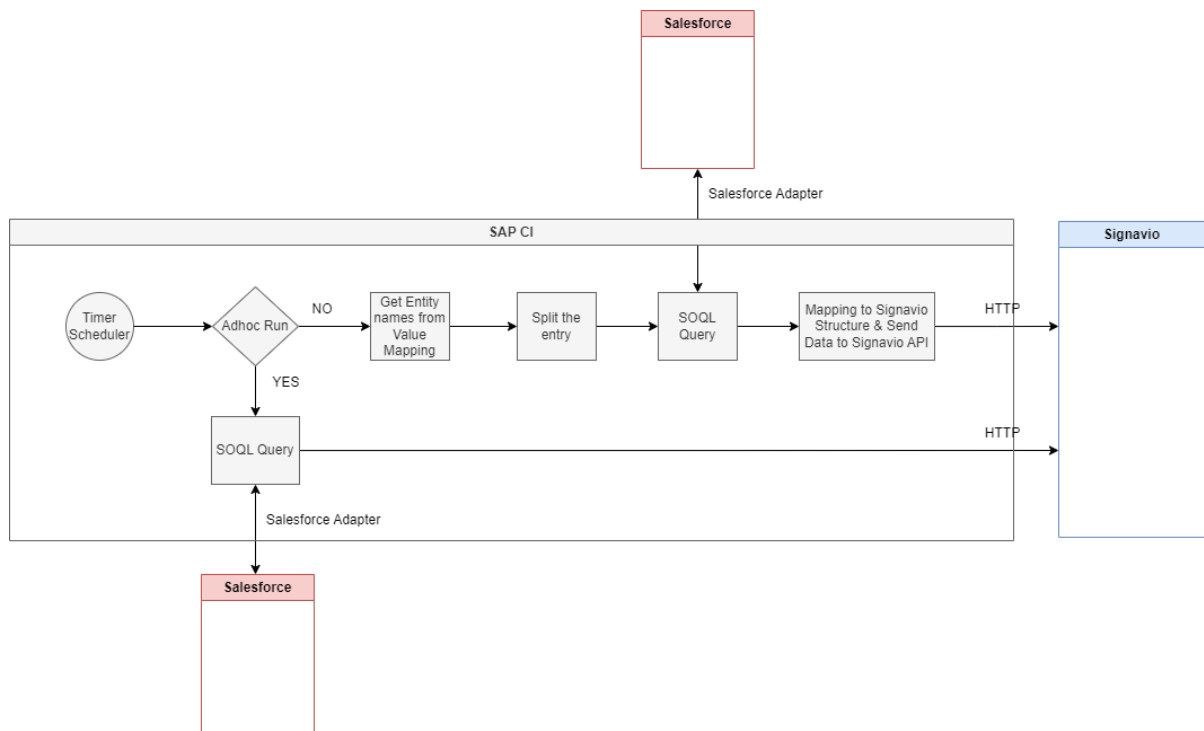
ReceiverPropertyLogging:

SecurityMaterial:

Transaction Handling: Not Required

### 3.4.2.2 Salesforce to SAP Signavio Process Intelligence Entity Replication

This integration flow replicates API Entities from Salesforce to SAP Signavio Process Intelligence. A high-level overview is provided below.



## Purpose

To review the configuration parameters of the integration flow - **Salesforce to SAP Signavio Process Intelligence - Entity Replication**.

## Procedure

1. Open **Salesforce to SAP Signavio Process Intelligence - Entity Replication** integration flow and click on configure.
2. Click on the **Timer** tab to review (or modify if needed) scheduling parameters.

Configure "Salesforce to SAP Signavio Process Intelligence - Entity Replication"

Timer: Set Schedule [StartEvent\_28769097]

Run Once  
 Schedule on Day  
 Schedule to Recur  
 Advanced

Schedule to Recur  
 Daily  
 On Time  
 Every  
 Time Zone

10:38 AM  
 1 min Between 00:00 and 01:00  
 ( UTC 0:00 ) Greenwich Mean Time(Etc/GMT)

- **Run Once:** integration flow will be executed only once, can be used for the initial load.
- **Schedule on Day:** integration flow will be executed on a specific date/time.
- **Schedule on Recur:** integration flow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).



You can modify the **Timer** configurations based on your scenario and landscape.

For more information about Scheduling, see [Configuring Timer](#).

3. Click on the **Receiver** tab to review (or modify if needed) connection parameters. For parameter specific descriptions, see [Parameter Descriptions](#).

Configure "Salesforce to SAP Signavio Process Intelligence - Entity Replication"

Timer **Receiver** More

Receiver: Mail

Adapter Type: Mail

Connection

Address: smtp.gmail.com:587

Proxy Type: Internet

Timeout (in ms): 30000

Protection: STARTTLS Optional

Authentication: Plain User/Password

Credential Name: <Your\_Security\_Credential>

Processing

From: address@abc.com

To: address@abc.com

Cc:

4. Switch to **More** tab to view execution options for ingesting entities into SAP Signavio Process Intelligence. For parameter specific descriptions, see [Parameter Descriptions](#).

Configure "Salesforce to SAP Signavio Process Intelligence - Entity Replication"

Timer Receiver **More**

Type: All Parameters

AdhocEntity:

Adhoc\_StartDate:

EnableMailNotification: TRUE

ExceptionLogging: TRUE

ExecuteFullLoad:

IflowName: Salesforce to SAP Signavio Process Intelligence - Entity Replication

LogSummaryReport: TRUE

PackageName: Salesforce Integration with SAP Signavio Process Intelligence

ReceiverBodyLogging: TRUE

ReceiverHeaderLogging:

ReceiverPropertyLogging:

SecurityMaterial:

SourceBodyLogging: TRUE

SourceHeaderLogging:


SourcePropertyLogging:

Transaction Handling: Not Required

UpdateLastRunVariable: TRUE

### 3.4.2.3 Parameter Descriptions

- For parameters related to entity loads, you can configure the following parameters:

Field	Description
ExecuteFullLoad	If the value is set to TRUE, a full load synchronization will be executed.  Acceptable values: TRUE,FALSE.
Adhoc_LastModifiedDate	Set a date for an adhoc execution.  Syntax: YYYY-DD-MMTHH24:MI:SS Example: 2024-24-07T00:00:00Z
UpdateLastRunVariable	If the value is set to TRUE, the last run date is saved at the integration flow level.  Acceptable values: TRUE,FALSE.
AdhocEntity	Specify an entity for which integration flow needs to be triggered <ul style="list-style-type: none"> <li>• Object creation on an adhoc basis</li> <li>• Entity replication on an adhoc basis</li> </ul> Example: Account <div style="background-color: #e6f2ff; padding: 5px; margin-top: 10px;">  Only a single entity can be specified at a time. </div>

- For Logging and Email notifications, you can configure the following parameters:

Field	Description
ReceiverBodyLogging	Specify TRUE to log the payload(Not recommended in a live environment).  Possible values: TRUE,FALSE. Use FALSE as a default value.
ExceptionLogging	Specify TRUE to log the exception (Not recommended in a live environment).  Possible values: TRUE,FALSE. Use FALSE as a default value.
ReceiverHeaderLogging	Specify TRUE to log the message header (Not recommended in a live environment).  Possible values: TRUE,FALSE. Use FALSE as a default value.
ReceiverPropertyLogging	Specify TRUE to log the message property (Not recommended in a live environment).  Possible values: TRUE,FALSE. Use FALSE as a default value.

Field	Description
SourceHeaderLogging	Specify TRUE to log source header.  Possible values: TRUE,FALSE. Use FALSE as a default value.
SourcePropertyLogging	Specify TRUE to log source property.  Possible values: TRUE,FALSE Use FALSE as a default value.
SourceBodyLogging	Specify TRUE to log source body.  Possible values: TRUE,FALSE. Use FALSE as a default value.
LogSummaryReport	It generates a brief summary regarding processed entities, and execution query.
EnableMailNotification	In case the value is set to TRUE, the integration flows will send a notification to the email address specified in the To field configured in the mail adapter. The notification is sent in case an exception occurs.  Possible values: TRUE,FALSE

- For Fields related to integration flow descriptions, you can configure the following parameters:

Field	Description
Iflowname	Specify a description for the integration flow name
Iflowpackagename	Specify a description for the related integration flow packages
Security Material	Specify the security artifact representing the user credentials.

- For other important parameters related to SAP Integration Suite configuration, refer to the below fields:

Field	Description
CI Tenant Address	Specify the hostname of your Cloud Integration tenant.  Example: <a href="https://&lt;yourhost&gt;.hana.ondemand.com">https://&lt;yourhost&gt;.hana.ondemand.com</a>
Credential Name	Specify the credential created to connect to CI Tenant Address of your Cloud Integration tenant.  You must create this artifact as a security credential.

# 4 Deploying the Integration Content

After ensuring the integration flows are configured to your requirements, you must deploy all the objects contained in the package. However, the correct order of deployment must be followed to avoid errors.

## Purpose

To deploy the contents of **Salesforce Integration with SAP Signavio Process Intelligence** integration package.

## Procedure

1. Deploy Salesforce and SAP Signavio Process Intelligence credentials from **Security Material**. For more information, see [Appendix](#).
2. Deploy the value mappings listed under [3.3 Value Mapping Configurations](#).
3. Deploy integration flow listed under [3.4.2.1 Salesforce to SAP Signavio Process Intelligence - Create Tables](#).
4. Deploy all Integration Flows under the package.

After the deployment of the above assets, you can now run the integration flows.

# 5 Running the Content

## Purpose

To execute the integration flows in the **Salesforce Integration with SAP Signavio Process Intelligence** integration package.

## Procedure

1. Run **Salesforce to SAP Signavio Process Intelligence - Create Tables** as a one-time step to create tables in SAP Signavio Process Intelligence.
2. Run delta or full loads for specific or all entities by executing **Salesforce to SAP Signavio Process Intelligence - Entity Replication**. You can execute Delta and Full load by configuring the parameters mentioned below:
  - a. **ExecuteFullLoad** has the highest priority; If set to TRUE, full load for all entities will be performed. **StartDate** in value mapping and **Adhoc\_LastModifiedDate** in the **More** tab will be ignored.



It is recommended to utilise AdhocEntity in conjunction with ExecuteFullLoad for entity wise loads.

- b. Secondly, **StartDate** in **Salesforce to SAP Signavio Process Intelligence – Entity Start Date Value Mapping** determines the execution timings if **ExecuteFullLoad** is empty. This is similar to a delta load.
- c. Finally, **Adhoc\_LastModifiedDate** is used for execution, if **StartDate** and **ExecuteFullLoad** parameters are not populated. This is similar to a delta load for an adhoc date.



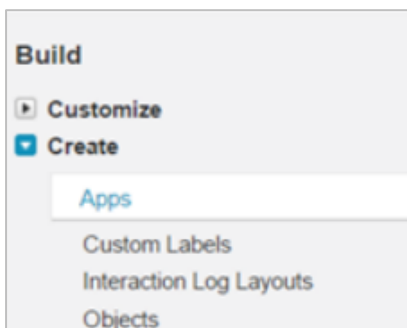
Ensure that you have set **UpdateLastRunVariable** to **FALSE** for your adhoc loads to avoid conflict with your scheduled runs.

# 6 Appendix

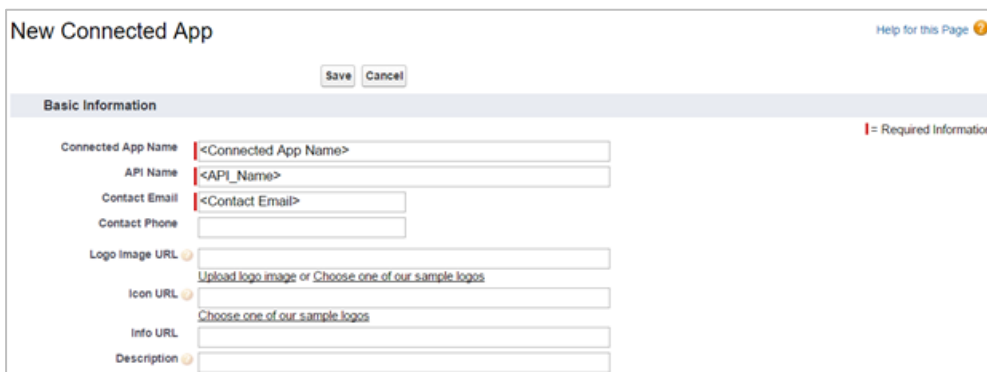
## 6.1 Configure Security Token and OAuth Credentials in Salesforce tenant

### Procedure

1. Log in to your Salesforce console and select **Setup**.
2. On the left panel in the Build overview, select Create, select **Apps** and select **New** for the **Connected Apps** section.



3. In the next window, enter **App Name**, **API Name**, and **Contact Email**.

A screenshot of the 'New Connected App' form in Salesforce. The form is titled 'New Connected App' and has a 'Help for this Page' link. It features a 'Basic Information' section with several input fields: 'Connected App Name' (placeholder: <Connected App Name>), 'API Name' (placeholder: <API\_Name>), 'Contact Email' (placeholder: <Contact Email>), 'Contact Phone', 'Logo Image URL' (placeholder: Upload logo image or Choose one of our sample logos), 'Icon URL' (placeholder: Choose one of our sample logos), 'Info URL', and 'Description'. A legend indicates that a red bar in the input field denotes 'Required Information'.


4. Under **API (Enable OAuth Settings)**, configure the following properties
  - a) Select the checkbox to **Enable OAuth Settings**.
  - b) Disable **Enable for Device Flow**.
  - c) Populate **Callback URL**.
  - d) Disable **Use digital signatures**.
  - e) Set **Selected OAuth Scopes** to **Full access (full)**.
  - f) Enable **Require Secret for Web Server Flow**.
  - g) Disable **Include ID Token**.

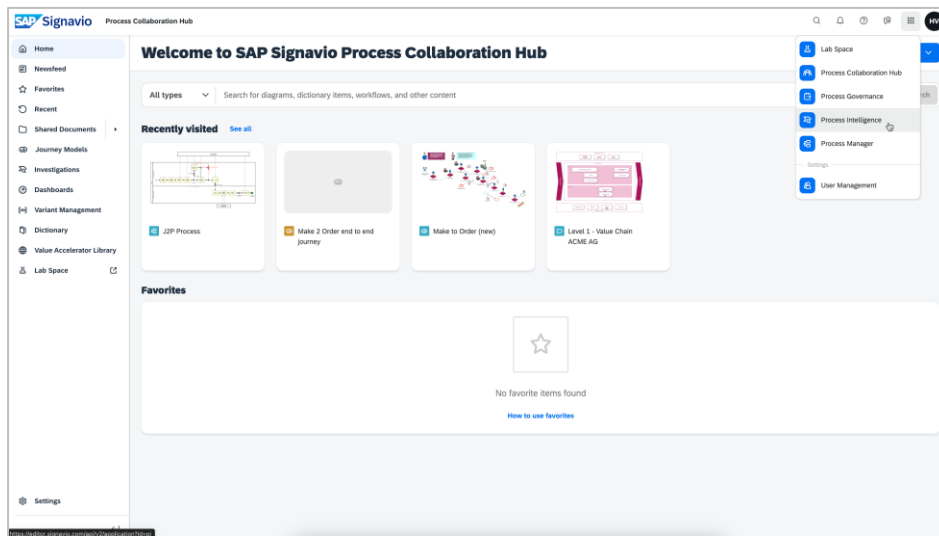
5. Disable **Enable Asset Tokens**. Select **Save** to complete the creation of the app.

6. Select the specific connect app in the saved details window. You can copy the **Client Id** and **Client Secret**, in the respective **Consumer Key** and **Consumer Secret** fields.

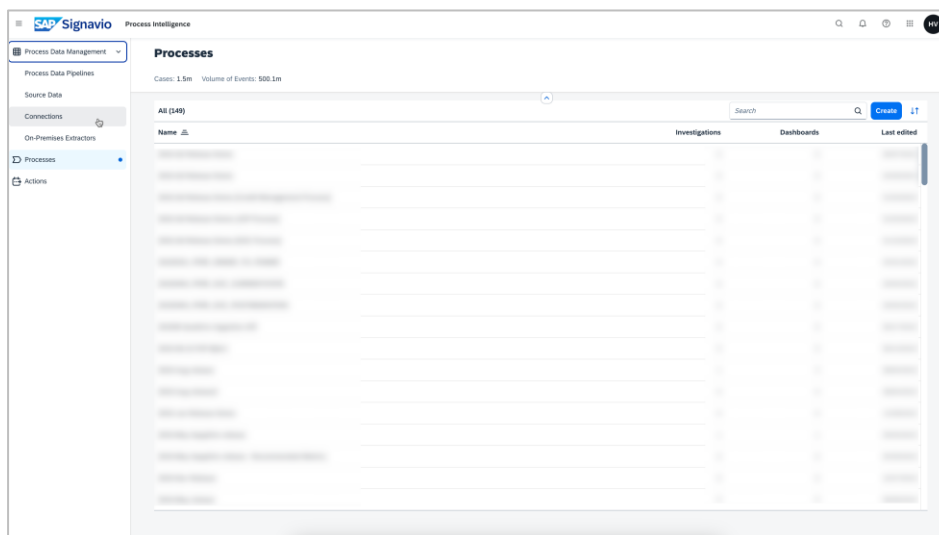
## 6.2 API activation in SAP Signavio Process Intelligence

### Procedure

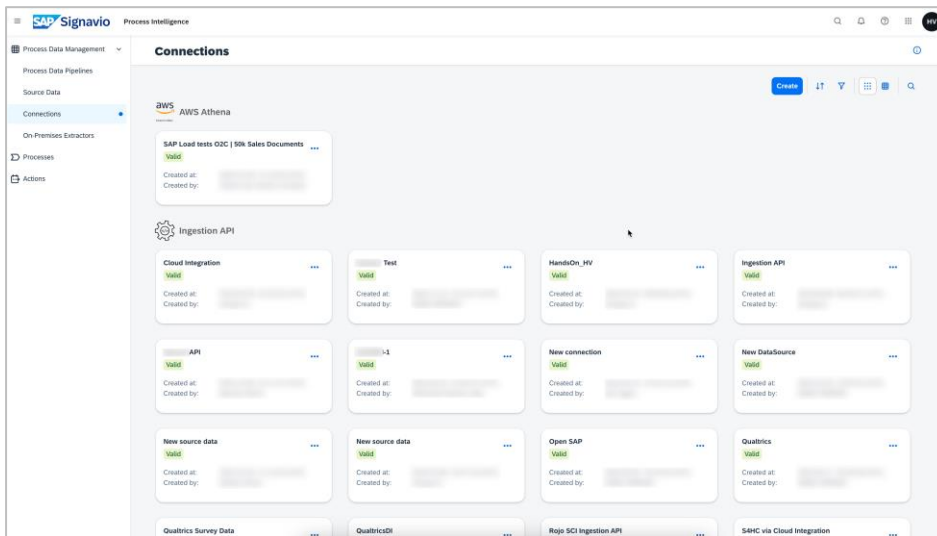
1. On the SAP Signavio Process Intelligence workspace, Click  on the top right and select **Process Intelligence** from the dropdown.



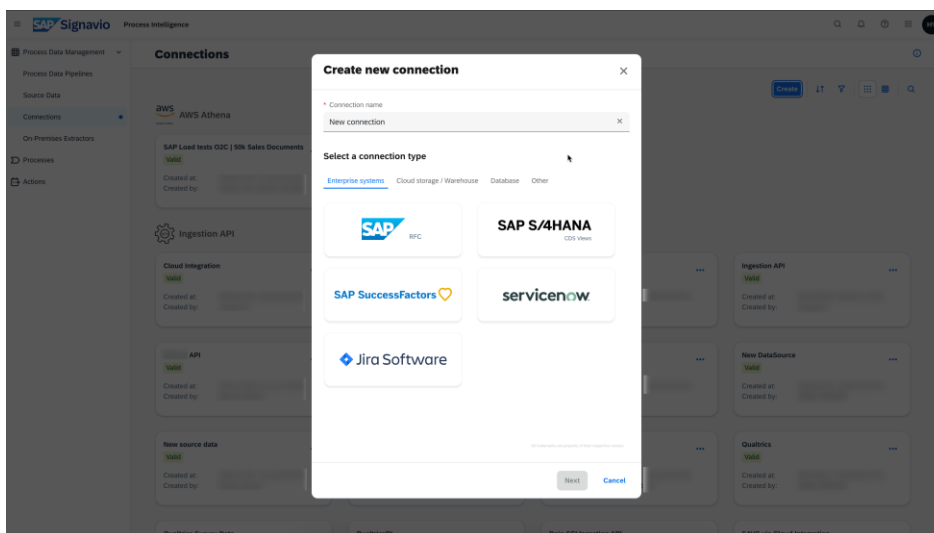
2. Select **Connections** under **Process Data Management** from the left side menu bar.



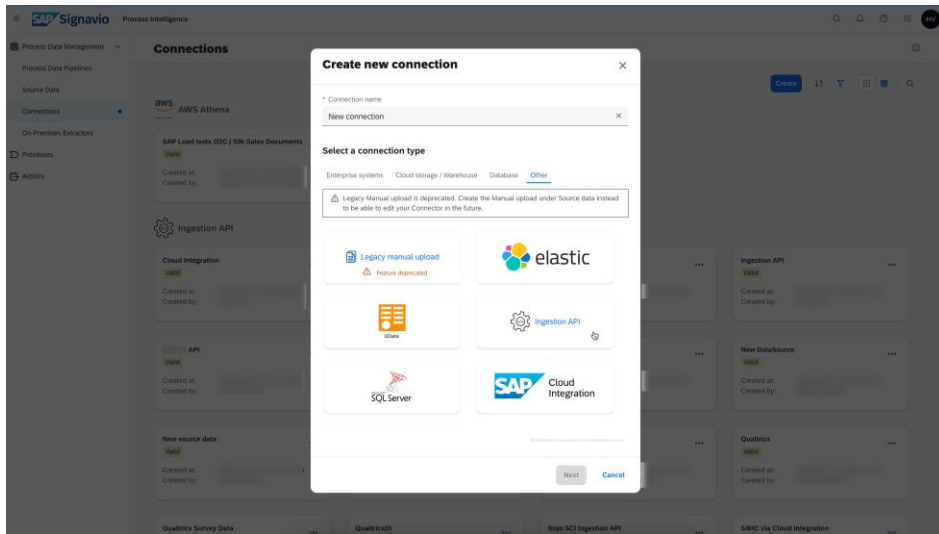
- Under **Connections**, Click **Create**.



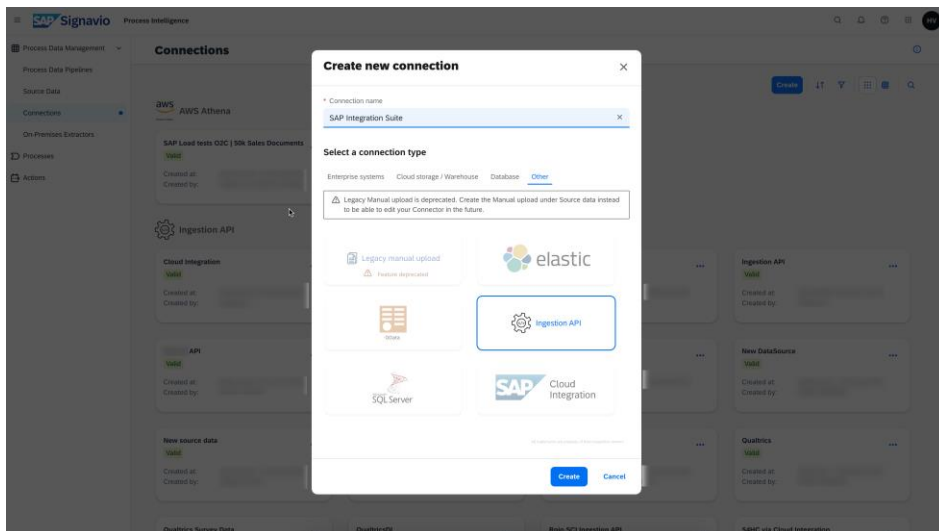
- A **Create new Connection** window pops up.



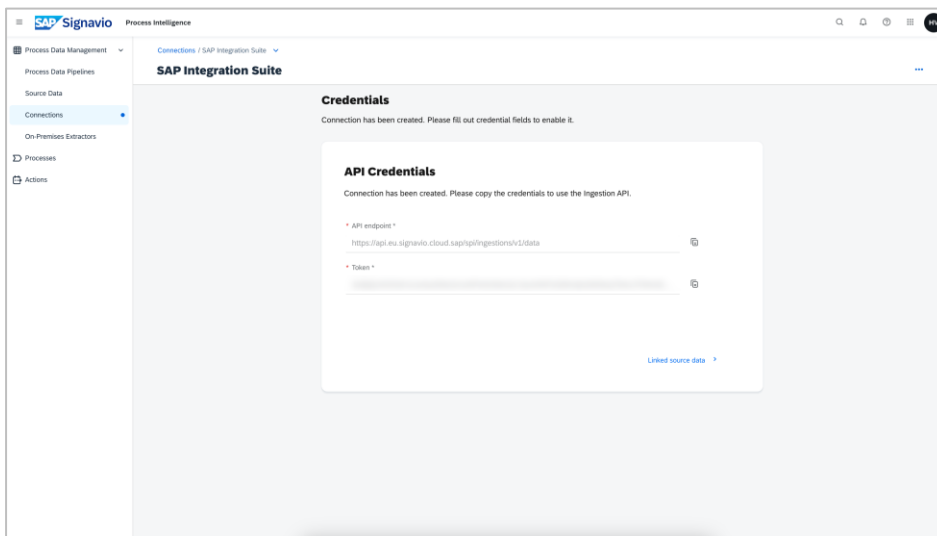
5. Switch to the **Other** and select the **connection** type as **Ingestion API**.



6. Finally, provide a **Connection name** and Click **Create** to finish the process.



7. A confirmation message reads “A new connection has been created”.



You can note the following details to be used later:

- The API endpoint for your specific tenant. The URL of the endpoint can vary based on the region your SAP Signavio Process Intelligence workspace is hosted in.
- Ingestion API Token that is required during configuration for SAP Integration Suite. You must add the above token as a **Secure Parameter** in **Security Material**.

For further information on the ingestion API, check out the official SAP Signavio Process Intelligence Ingestion API documentation.

# 7 References

For more information on *connecting* and *authenticating* against the adapters used in this integration content, refer to the following links:

- [Mail Receiver Adapter](#)
- [Salesforce Receiver Adapter](#)
- [HTTP Receiver Adapter](#)