

SAP SuccessFactors Integration with ServiceNow Configuration Guide

For SAP Cloud Integration Suite

Version 1.0 – June 2021

Contents

1	<i>Introduction</i>	2
1.1	Coding Samples	2
1.2	Internet Hyperlinks	2
2	<i>Overview</i>	2
3	<i>Preparing the Systems for Integration</i>	2
3.1	Prerequisites	2
3.2	Adapter Installation.....	3
3.3	Plug-in Installation.....	3
4	<i>Configuration</i>	3
4.1	Configuration in SAP SuccessFactors.....	3
4.2	Configuration in ServiceNow	4
4.3	Configuration in SAP Integration Suite.....	4
4.3.1	Replicate SAP SuccessFactors Users to ServiceNow Users	4
5	<i>Appendix</i>	12
5.1	Generating Schema from Eclipse Plug-in and Replacing Standard Schema Used in Integration Flow	12



1 Introduction

This document provides an overview of the artifacts delivered as part of the SAP SuccessFactors Integration with ServiceNow for the SAP Integration Suite. The document discusses some of the common configuration steps needed before deploying the Integration Flows within the package.

Read this guide carefully before configuring the integration content.

1.1 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.

1.2 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.

2 Overview

The integration of SAP SuccessFactors Employee Central and ServiceNow processes can be customized. It is expected that you customize the process as per your business requirements. Adjustments can be made at different components, including:

- Adjustment to the integration flow externalized parameters;
- Adjustments to the ServiceNow setup;
- Adjustment to the mapping step to reflect the possible custom properties in ServiceNow.

In case changes have been made to the sys_user tables in ServiceNow to include custom fields, XSD needs to be generated using the Eclipse Plug-in. These XSDs need to be uploaded to the Integration Flow and the mapping adjusted accordingly.

3 Preparing the Systems for Integration

3.1 Prerequisites

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



Access required:

- SAP SuccessFactors Tenant Details
- SAP Integration Suite Tenant Details.
- ServiceNow Tenant Details

Authorization required:

- SAP SuccessFactors Tenant Details
 - Appropriate authorizations for the technical user that will be used to connect to the SAP SuccessFactors Tenant.
- SAP Integration Suite Tenant Details
 - AuthGroup.IntegrationDeveloper
- ServiceNow Tenant
 - Appropriate authorizations for the technical user that will be used to connect to the ServiceNow Tenant.

3.2 Adapter Installation

Installing the ServiceNow adapter is a prerequisite to use this Integration Package. For the adapter installation refer to the *ServiceNow Adapter and Plug-in Installation Guide* that is included as part of the ServiceNow adapter package.

3.3 Plug-in Installation

For the Eclipse plug-in (or Workbench) installation refer to the *ServiceNow Adapter and Plug-in Installation Guide* that is included as part of the ServiceNow adapter package.

4 Configuration

SAP SuccessFactors, ServiceNow, and SAP Integration Suite need to be configured and prepared before the integration content package can be configured and deployed. Follow the steps mentioned in the next sections.

4.1 Configuration in SAP SuccessFactors

A Technical Communication User is needed to call OData services in SAP SuccessFactors from the Integration Suite. Communication Users in SAP SuccessFactors are used for inbound communication and for processing messages in the system. The created technical user needs to have all the appropriate authorization to read employee and user data.



4.2 Configuration in ServiceNow

This integration package is configured using basic Authentication toward ServiceNow. It is however also possible to use OAuth. Details of how to configure OAuth can be found in ServiceNow Adapter guides that can be obtained from within the ServiceNow adapter zip file.

A Technical Communication User is needed in ServiceNow to perform all integration calls from the Integration Suite. The created technical user needs to have all the appropriate authorization to create and update the sys_user table in ServiceNow.

4.3 Configuration in SAP Integration Suite

In this section, the settings of the Integration Flows will be discussed, including the prerequisites, parameters of the Sender and Receiver systems, as well as others specific to each iFlow.

4.3.1 Replicate SAP SuccessFactors Users to ServiceNow Users

This integration flow allows replication of users from SAP SuccessFactors to ServiceNow. The integration needs to be scheduled (if scheduled to recur) and it checks for any changed or modified user data in SAP SuccessFactors. Figure 4.1 depicts the business process to be implemented.

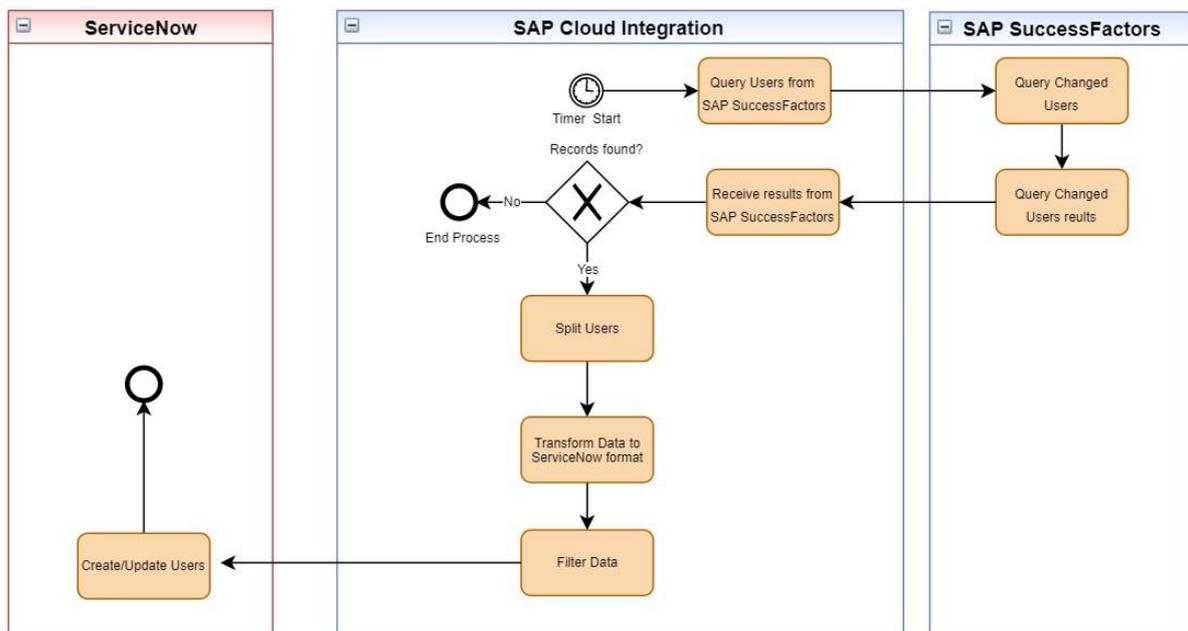


Figure 4.1 Process Diagram

The SAP Cloud Integration implementation of the process in Figure 4.1 is shown in Figure 4.2.

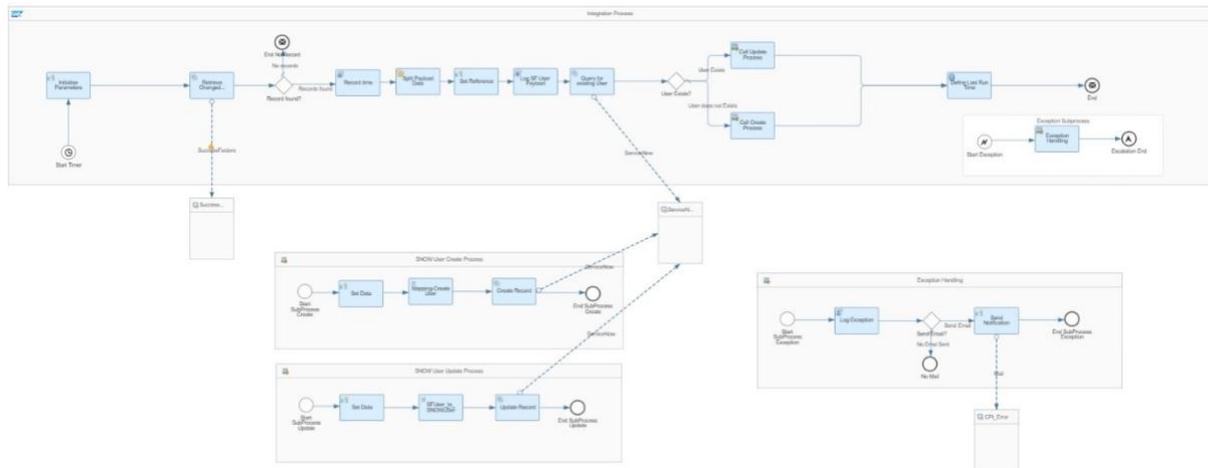


Figure 4.2 Integration Flow

4.3.1.1 Prerequisites

The following actions are prerequisite for this integration flow:

- Deploy the security artifacts that will be required during the configuration of integration content.
- Users need to define the time zone in configuration and the first time run date and hour from when to start replicating.

4.3.1.2 Deploying User Credentials in SAP Cloud Integration

To enable the Integration Flows to run, Credentials for both ServiceNow and SAP SuccessFactors in the Cloud Integration Tenant must be deployed. These are discussed in the next sections.

4.3.1.2.1 Deploying User Credentials for ServiceNow

This is necessary to connect to ServiceNow using basic Authentication (username and password). Follow the steps below:

1. In your SAP Cloud Integration tenant go to Monitor.
2. In Manage Security click on Security Material.
3. Click on the Add dropdown and select User Credentials.
4. Specify the name and description of the User Credential.
5. Fill in the username and password of your technical ServiceNow User.
6. Click on Deploy.



4.3.1.2.2 Deploying User Credentials for SAP SuccessFactors

This is necessary to connect to SAP SuccessFactors using basic Authentication (username and password). Follow the steps below:

1. In your SAP Cloud Integration tenant go to Monitor.
2. In Manage Security click on Security Material.
3. Click on the Add dropdown and select User Credentials.
4. Specify the name and description of the User Credentials.
5. Fill in the username and password of your technical ServiceNow User.
6. Click on Deploy.

4.3.1.3 Configuration

Follow the steps below to configure the integration flow:

1. Open the integration flow "Replicate SAP SuccessFactors Users to ServiceNow Users".
2. Click on Configure.
3. Configure "Timer". You can choose between:
 - Run Once:** iFlow will be executed only once, can be used for the initial load.
 - Schedule on Day:** iFlow will be executed on a specific date/time.
 - Schedule to Recur:** iFlow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).

Figure 4.3 Configure Timer

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

4. Go to Receiver.
5. Configure the "Receiver" connector named "SuccessFactors" to fit your specific landscape. See Figure 4.4.



Figure 4.4 Configure Receiver SAP SuccessFactors

The description of each of the fields in Figure 4.4 is presented in the table below.

Parameter	Description
Address	Specify the API hostname of your SAP SuccessFactors system. The hostname is part of the Address. Example: https://example.successfactors.com
Address Suffix	Use the default Address Suffix.
Proxy Type	Specify the proxy type that suits your scenario. The default value is Internet.
Authentication	Specify the authentication method to be used. Note that Basic authentication is selected by default.
Credential Name	Specify the name of the credential you have deployed for SAP SuccessFactors. This was discussed in Section 4.3.1.2.2.
Accept-Encoding	Specify the Accept-Encoding that suits your scenario.
Pagination	Specify the preferred Pagination approach. Use Client as default.
Page Size	100

Timeout (in min)	3
------------------	---

Table 1 Configure Receiver SAP SuccessFactors

6. Configure the "Receiver" connector named "ServiceNow". See Figure 4.5.

The screenshot shows a configuration window with three tabs: 'Timer', 'Receiver', and 'More'. The 'Receiver' tab is active. Under the 'Connection' section, the following fields are visible:

- Receiver: ServiceNow (dropdown menu)
- Adapter Type: ServiceNow (dropdown menu)
- Address: https://[redacted].service-now.com (text input)
- Authentication: Basic (dropdown menu)
- Credential Name: ServiceNow-[redacted]-credential (text input)

Figure 4.5 Configure Receiver ServiceNow

The description of each of the fields in Figure 4.5 is presented in the table below.

Parameter	Description
Address	Specify the hostname of your ServiceNow tenant. Example.: https://dev11111.service-now.com
Authentication	Specify the authentication method to be used. Note that Basic authentication is selected by default.
Basic Credential Name	Specify the name of a deployed User Credentials artifact that holds the username and password used to authenticate with ServiceNow. This was discussed in section 4.3.1.2.1.

Table 2 Configure Receiver ServiceNow

7. Configure the "Receiver" connector named "Email_Handler". See Figure 4.5.



Figure 4.6 Configure Receiver Mail Server

The description of each of the fields in Figure 4.6 is presented in the table below.

Parameter	Description
Address	Specify the combination of the hostname and port of your email Server. Example.: smtp.gmail.com:587
Basic Credential Name	Specify the name of a deployed User Credentials artifact that holds the Username and Password used to authenticate with the mail server.
From	Specify the email address from which the exception notification should come from.
To	Specify the email address where to sent the exception notification to.
Subject	Specify the template to be used as a subject of your email.

Table 3 Configure Receiver Mail Server

8. Configure "More" as shown in Figure 4.7.

Timer Receiver **More**

Type:	All Parameters
BodyLogging:	TRUE
EnableMailNotification:	TRUE
HeaderLogging:	FALSE
InitialQueryDate:	2021-05-11T00:00:00Z
PropertyLogging:	FALSE
Timezone:	CET

Figure 4.7 Configure More options

The description of each of the fields in Figure 4.7 is presented in the table below.

Parameter	Description
InitialQueryDate	<p>This date is used as a starting point for the query to retrieve changed users in SAP SuccessFactors. The date is written using the format: YYYY-MM-DD'T'hh:mm:ss.ss'Z'</p> <p>Example: 2021-01-01T00:00:00Z.</p> <p>In case you use the date in the example, the first time the integration flow runs, all users' data that have been changed from "2021-01-01T00:00:00Z" will be synchronized to ServiceNow. The integration flow then keeps track of the last time it has run. The subsequent run will query data from the last time the integration flow run.</p>
BodyLogging	Possible values "TRUE" / "FALSE". Specify "TRUE" to log the Message Body (Not recommended in a live environment). Use "FALSE" as a default value.
HeaderLogging	Possible values "YES" / "NO". Specify "YES" to log Message Headers. Use "FALSE" as a default value.
PropertyLogging	<p>Possible values "TRUE" / "FALSE". Specify "TRUE" to log Message Properties (Not recommended in a live environment).</p> <p>Use "FALSE" as a default value.</p>
TimeZone	Specify the timezone to be used. The default value is CET.

EnableMailNotification	Possible values "TRUE" / "FALSE". In case the value is set to "TRUE", the integration Flows will send a notification to the email address specified in the To field of the Mail server. See Table 3. The notification is sent in case an exception occurs.
------------------------	--

Table 4 Configure More options

9. Save and Deploy.

4.3.1.4 Integration Message Mapping

In case your organization uses custom fields in ServiceNow, you might need to customize the provided integration flow and adapt it to your needs. Users should update the existing solution by creating a new XSD using the Eclipse ServiceNow Workbench Plug-in, change this schema in the message mapping, and add custom connections as needed.

4.3.1.5 Value Mapping

Value mapping facilitates the customization of Gender for Users in SuccessFactors to "Gender" in ServiceNow. In the current version of the content package, there are two records – see Figure 4.8.

Note: In case these default values have been changed in your tenant, adjust the value mapping accordingly.

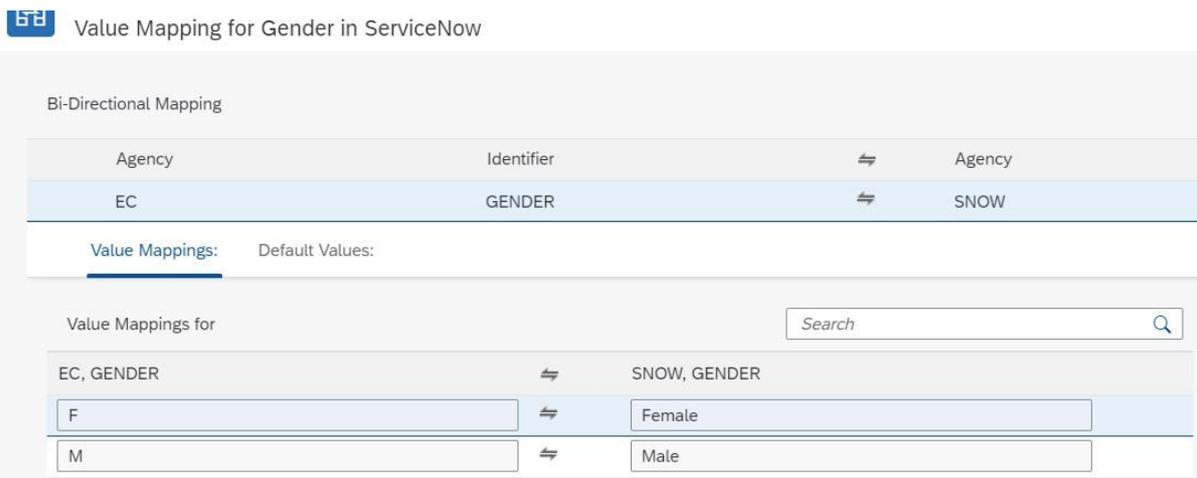


Figure 4.8 Value Mapping for Account Group



5 Appendix

5.1 Generating Schema from Eclipse Plug-in and Replacing Standard Schema Used in Integration Flow

Currently, the integration package uses standard fields and properties provided in ServiceNow. In case other custom fields are needed; a new XSD must be generated with the ServiceNow Eclipse Plug-in, the default XSD on mapping must be replaced by the created one, and these fields should also be mapped.

Steps to create an XSD:

1. Open Eclipse.
2. Go to Windows > Perspective > Open Perspective > Other.
3. Select ServiceNow Adapter and click Open.
4. Go to XSD Generator.
5. Select a Version.
6. Select an Operation. First Create, then Update.
7. Select the ServiceNow Table. Example: Sys_user
8. Select Request XSD for both the Create and Update Operations.
9. Click on Save XSD and select a folder.
10. Replace default XSD from mapping in SAP Cloud Integration to the recently created XSD.

