

Integration Guide

CUSTOMER

SAP Asset Intelligence Network with SAP Service Cloud and SAP Commerce Cloud

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Integration Guide: SAP Asset Intelligence Network with SAP Service Cloud and SAP Commerce Cloud

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Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.

Document History

Version	Date	Change
1.0	November 2017	SAP Asset Intelligence Network integration with SAP Cloud for Customer document created
2.0	February 2018	Document updated for SAP AIN 1802 release
3.0	July 2018	Document updated for SAP AIN 1805 release
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1 Introduction

This integration guide primarily discusses the overall technical implementation of SAP Asset Intelligence Network with SAP Service Cloud and SAP Commerce Cloud system. However, additional software dependencies might exist without being mentioned explicitly in this document.

Note

The integration information that is presented here serves as an example of how you can use the SAP Asset Intelligence Network application in your company. Ensure that you check your requirements and systems to determine how this can be used productively at your site.

Recommendation

We recommend that you test these scenarios thoroughly in your test systems to ensure they are complete and free of errors before going live.

1.1 About this Document

This section describes the concept of how the SAP Asset Intelligence Network (SAP AIN) is integrated with SAP Service Cloud and SAP Commerce Cloud. You can find cross-scenario implementation information as well as scenario-specific information in this guide.

Note

The central starting point for the SAP Asset Intelligence Network application is the administration and operations guide, which you can find on the SAP User Assistance Content Platform at https://uacp2.hana.ondemand.com/viewer/p/SAP_ASSET_INTELLIGENCE_NETWORK.

Purpose

This section consists of the following main sections:

- **Configuring SAP AIN with SAP Service Cloud**
- **Maintaining User Credentials**
- **Configuring SAP Commerce Cloud as an External System in SAP AIN**

1.2 Online Information from SAP

Documentation

Description	Internet Address	Title
Information on documents and guides such as Security, Upgrade or Administrator's guides relating to SAP AIN	https://help.sap.com/viewer/p/SAP_ASSET_INTELLIGENCE_NETWORK	SAP AIN Help Portal Page

General Quick Links

Description	Internet Address
SAP Help Portal	http://help.sap.com
SAP Notes	http://support.sap.com/notes
Released platforms and operating systems	http://support.sap.com/platforms
System sizing	http://sap.com/sizing
Security	http://sap.com/security

1.3 Naming Conventions

Throughout this document the following naming conventions apply.

Terminology

Important terms and terminology that are used in this document.

Terminology	Description
SAP AIN	SAP Asset Intelligence Network

2 Configuring SAP Cloud Platform Integration System in SAP Asset Intelligence Network

Prerequisites

- You have the CONFIGURATION_DELETE or CONFIGURATION_EDIT roles assigned to your user ID.
- You have access to the SAP Cloud Platform Integration account.
- You have the link to access the Integration Flow file.

Procedure

1. Log on to your SAP Cloud Platform Integration Web UI.
2. On the SAP Cloud Platform Integration landing page, click Discover (icon with spectacles).
3. From the SAP Cloud Platform Integration Web UI, choose the SAP Asset Intelligence Network Integration with SAP *Service Cloud* and SAP Cloud Platform IoT Services package.
4. Choose *SAP Cloud Platform Internet of Things Integration* for SAP Cloud Platform IoT systems. Choose *Tickets Integration* or *Contracts Integration* for SAP Service Cloud integration.
5. Click *Copy*.
6. From the *Cloud Platform Integration* landing page, choose the *Design* tab.
7. From the *Integration Flow Package*, choose -> *the relevant integration artifact* -> *Actions* -> *Deploy*.
The `Integration_Flow` file is deployed to the SAP Cloud Platform Integration system.
8. To check the deployment status, choose the *Monitor* tab and verify.

3 Maintaining User Credentials

You perform this procedure to maintain user credentials of an external system in SAP Cloud Platform Integration.

Note

The credentials name is used while creating external system in AIN.

Prerequisites

You have access to a SAP Cloud Platform Integration account.

Procedure

1. Log on to your SAP Cloud Platform Integration account.
2. From the SAP Cloud Platform Integration landing page, choose -> [Monitor](#)-> [Manage Security Material](#).
3. Choose -> [Add](#) -> [User Credentials](#).
4. In the [Add User Credentials](#) dialog box, enter the following:

Field	Description
Name	Enter a name denoting the system you are going to configure. For example: HCP IoT
Description	Provide a meaningful description
User	Provide the external system ID
Password	Provide the external system password

Choose [Deploy](#).

4 SAP Asset Intelligence Network with SAP Service Cloud

4.1 Configuring SAP Service Cloud System

You perform this procedure as a prerequisite to configuring external systems such as SAP Service Cloud, with SAP Asset Intelligence Network.

Prerequisites

You have the administrator role configured to your user in the SAP Service Cloud system.

Procedure

Integration settings for Contract Services

- **Setting up a new system in SAP Service Cloud**
 1. Log on to your [SAP Service Cloud](#) account.
 2. On the landing page, go to [Administrator](#) section.
 3. Under [Integration](#) section, choose [Communication Systems](#).
 4. Choose [New](#).
 5. In the [New Communication System](#) window, enter the following:

Tab	Field	Description
General	ID	Provide a unique ID
	Host Name	Enter Host name
	System Access Type	Always maintain as "Internet"
	Technical Details	Enter your name, e-mail, phone, and fax
System Instances	Add new-> System instance ID	Enter a system instance Web Services
	Preferred Application Protocol	

6. Choose [Save](#).
7. Choose [Set to Active](#) from the [Actions](#) section.

- **Setting up a Communication Arrangement**

1. Log on to your [SAP Service Cloud](#) account.
2. On the landing page, go to [Administrator](#) section.
3. Under [Integration](#) section, choose [Communication Arrangements](#).
4. Choose [New](#).
5. In the [New Communication Arrangement](#) window, select a communication scenario **Query Contracts** from the list in the [Select Scenario](#).
6. In the [Define Business Data](#) page, select a [System Instance ID](#).

Note

System Instance ID should be the same as that you have created earlier.

7. In the [Define Technical Data](#) page, enter the following:

Field	Description
Communication Method	Select a communication method
Application Protocol	Always maintain 'Web Service'
Authentication Method	User ID and Password
User ID	You can edit your user credentials

8. Review and activate the communication arrangement.
9. You can now view the newly created communication arrangement in the [Communication Arrangement](#) List.

4.2 Maintaining User Credentials

You perform this procedure to maintain user credentials of an external system in SAP Cloud Platform Integration.

Note

You have to deploy user credentials twice, one for SAP Service Cloud tickets and the other for contracts.

Prerequisite

You have access to the SAP Cloud Platform Integration account.

Procedure

1. Log on to your SAP Cloud Platform Integration account.
2. From the SAP Cloud Platform Integration landing page, choose → *Monitor* → *Manage Security Material*
3. Choose → *Add* → *User Credentials*
4. In the *Add User Credentials* dialog box, enter the following:

Field	Description
Name	SAP Service Cloud tickets: Enter any name denoting the system you are going to configure. For example: C4C_USER Contracts: C4S_TECHNCAL_USER
Description	Provide a meaningful description
User	Provide the external system ID
Password	Provide the external system password

5. Choose *Deploy*.

4.3 Configuring External Systems in SAP Asset Intelligence Network

You use this procedure to configure external system in SAP Asset Intelligence Network using *Application Settings* app.

Context

For simplicity, this procedure explains configuring SAP Service Cloud in SAP Asset Intelligence Network.

Prerequisites

- You have the privileges of an organization administrator, CONFIGURATION_DELETE or CONFIGURATION_EDIT.
- You have already integrated the external system with SAP Asset Intelligence Network. For details, see: Admin Guide at www.help.sap.com/ain.
- Set up external system for SAP Service Cloud

Procedure

Configure SAP Cloud Platform Integration

1. Log on to *SAP Asset Intelligence Network*.
2. Launch the *Application Settings* app.
3. Navigate to *Systems -> Add -> SAP Cloud Platform Integration*

Note

You can configure only one SAP Cloud Platform Integration system in SAP Asset Intelligence Network.

4. In the *Add System* dialog box, fill in the following:

Field	Description
System Type	SAP Cloud Platform Integration (auto populated)
System Name	Enter a unique system name
System Status	Set to Active
URL Information	Provide the host URL of the SAP Cloud Integration system. For example: https://cd2ain1-iflmap.hcisb.hana.ondemand.com/
Additional Information	Fill in additional information as necessary
Is System Primary	Not relevant for this procedure

5. Choose *OK*.

Configure SAP Service Cloud

1. Log on to SAP Asset Intelligence Network.
2. Launch the *Application Settings* app.
3. Choose the *Systems* tab.
4. Choose *Add*.
5. Choose the external system of type SAP Service Cloud.
6. In the *Add System* dialog box, provide the details as listed:

Field	Description
System Name	Provide a unique system name
Credential Name	As provided while adding user credentials in your SAP Cloud Platform Integration account.
System Status	Active or Inactive
URL Information	URL of the external system.

Additional Information	If required.
------------------------	--------------

7. Choose *OK*.

The external system with details gets populated in the *Systems* list in the *Application Settings* window.

4.4 Mapping External IDs for Objects with SAP Service Cloud System

You as an equipment manufacturer are mapping external IDs for an equipment and the corresponding operator with the SAP Service Cloud system. When you have a registered product existing in SAP Service Cloud system, you can:

- Create, edit or view the relevant tickets for the corresponding equipment in AIN.
- View the relevant contracts for the corresponding equipment in AIN.

Note

- Registered product in SAP Service Cloud correspond to equipment to AIN. The serial ID of the registered product must be mapped to corresponding AIN equipment as External IDs. The SAP Service Cloud account ID must be mapped in the corresponding AIN company profile as External IDs.
- In case the equipment owner (Source) is different from the equipment manufacturer in AIN, share the equipment with the manufacturer of the equipment with "Write" access. In case you need more information on how to connect with business partners, see [Managing your Business Partners](#). For more information on sharing equipment, see [Sharing Business Objects from Object Pages](#).

Prerequisites

- The external system in question is already configured with SAP Asset Intelligence Network.
- Your user ID either belongs to the group has the roles EQUIPMENT_DELETE or EQUIPMENT_EDIT or EQUIPMENT_READ assigned.

Note

The mapping is not supported for lean equipment, where there is no model associated to the equipment.

Procedure

- The manufacturer of the model associated with the equipment maps the External ID on the equipment.
 1. Launch the *Equipment* application.
 2. Open the item of equipment in question.
 3. Go to *External IDs* and choose *Add*.
 4. In the *Add External ID* window, enter the following:

Field	Description
System Name	Choose the name of the SAP Service Cloud system that you have defined earlier as an external system.
Object Type	'Registered Product'
External ID	Enter a registered product's Serial ID

5. Choose *OK*.

You see the new External IDs listed on the External IDs page.

- The Manufacturer of the model associated with the equipment maps the External ID for the equipment owner (Source) in the company profile.

6. Launch the *My Company Profile* application.

7. Go to *External IDs*, choose *Add*.

8. In the *Add External ID* window, enter the following:

Field	Description
System Name	Choose the name of the SAP Service Cloud system that you have defined earlier as an external system.
Object Type	Not required
External ID	Enter the SAP Service Cloud account ID of the Source of the equipment

9. Choose *OK*.

You see the new external IDs listed on the *External IDs* page.

5 SAP Asset Intelligence Network with SAP Commerce Cloud

5.1 Configuring SAP Commerce Cloud as an External System in SAP Asset Intelligence Network

You use this procedure to configure external system in SAP Asset Intelligence Network using [Application Settings](#) app.

For simplicity, this procedure explains configuring SAP Commerce Cloud in SAP Asset Intelligence Network.

Prerequisites

- **In SAP Commerce Cloud System**

- You have the administrator role configured to your user in the SAP Commerce Cloud system.
- Omni Commerce Connect (OCC) v2 must be enabled.
- Download and unzip the [sapjumpinurl addon](#).
- Steps to download the addon:
 1. Download
 2. Unzip the **sapjumpinurl.zip** from the downloaded folder.

Note

After downloading the file, you must extract the zip file again. Install the addon on SAP Commerce Cloud system using the following command **addon installation procedure: ant addoninstall -Daddonnames="sapjumpinurl" -DaddonStorefront.yacceleratorstorefront=<enter store front name in the hybris system>**

- **In SAP AIN system**

- You must have the privileges of an organization administrator, CONFIGURATION_DELETE or CONFIGURATION_EDIT.
- You have already integrated the external system with SAP Asset Intelligence Network. For details, see: Admin Guide at www.help.sap.com/ain.

Procedure

1. Log on to SAP Asset Intelligence Network.
2. Launch the Application Settings app.
3. Choose the Systems tab.
4. Choose Add.

5. Choose the external system of type SAP Commerce Cloud.
6. In the Add System dialog box, provide the details as listed:

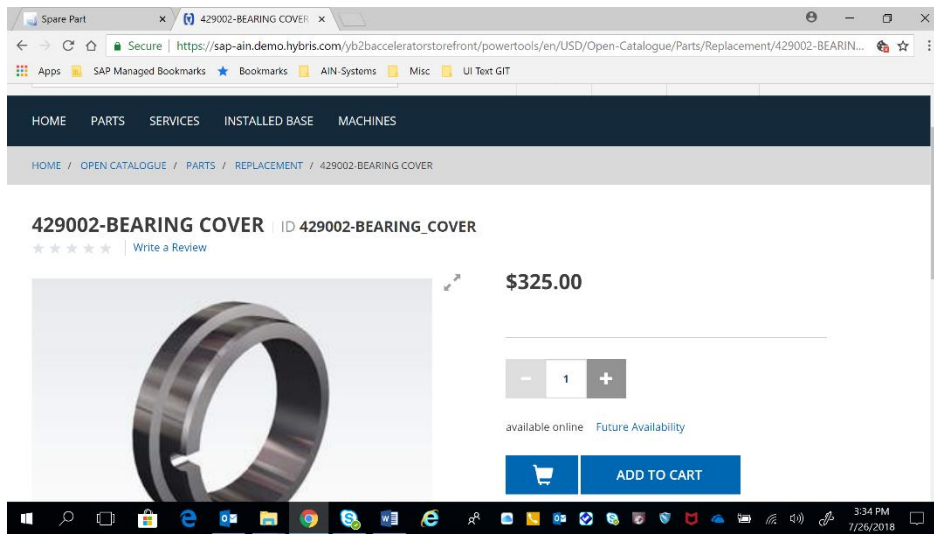
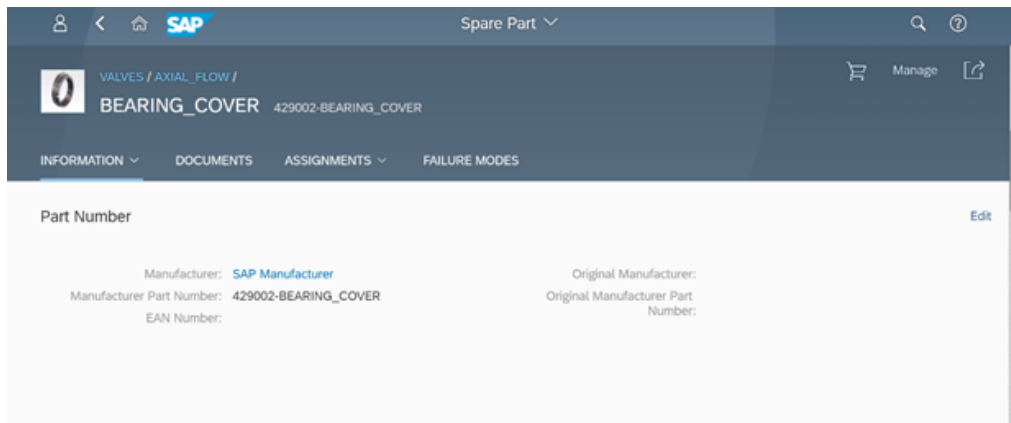
Field	Description
System Name	Provide a unique system name
Credential Name	As provided while adding user credentials in your SAP Cloud Platform Integration account.
System Status	Active or Inactive
URL Information	URL of the external system.
Base Site ID	Base site ID maintained in the SAP Commerce Cloud system
Webroot	<p>Webroot of the store front name in the SAP Commerce Cloud system</p> <p>Note</p> <p>If you have maintained a webroot in your SAP Commerce Cloud system, then it is mandatory to maintain the same in AIN system as well.</p>
Additional Information	If required.

7. Choose *OK*.
The external system with details gets populated in the *Systems* list in the *Application Settings* window.

Note

After the configuration is in place, you can view the "Add to Cart" icon for the relevant spare parts in the *Equipment* and *Models* app.

8. Make sure that the *Manufacturer Part Number* in the AIN system is the same as the *Product ID* in the Hybris Commerce system.



Note

After the configuration is in place, you can view the "Add to Cart" icon for the relevant spare parts in the *Spare Part* app together *with Equipment* and *Models* app.

5.2 SAP Hybris Cart via REST API (OCC v2)

This integration works for Hybris B2C solutions, as well as for Hybris B2B solutions. The only impediment could be "secureportaladdon" extension of Hybris, which requires user to authenticate before any Hybris page could be rendered in the browser.

Prerequisites

SAP Hybris with OCC v2 enabled

sapjumpinurl addon installed, standard addon installation procedure: `ant addoninstall -`

`Daddonnames="sapjumpinurl" -DaddonStorefront.yacceleratorstorefront="yourstorefront" or`

define a controller/web method like following (extends

`de.hybris.platform.addonsupport.controllers.AbstractAddOnController` or

`de.hybris.platform.acceleratorstorefrontcommons.controllers.pages.AbstractPageController` if used without

addons): `@Controller @RequestMapping(value = "/jump-in") public class JumpinUrlController extends`

`AbstractAddOnController { private static final String CART_GUID_PATH_VARIABLE_PATTERN =("/{cartGuid:.}");`

`@Resource private CartFacade cartFacade;`

`@RequestMapping(value = "/cart/" + CART_GUID_PATH_VARIABLE_PATTERN, method = RequestMethod.GET)`

`public String prepareCart(@PathVariable("cartGuid") final String cartGuid) throws`

`CommerceCartRestorationException { cartFacade.restoreSavedCart(cartGuid); return REDIRECT_PREFIX +`

`"/cart"; }`

Use Case

1. Create a new shopping cart via Hybris REST API for anonymous user (no authentication is required)

Request: `POST https://{host}:{port}/rest/v2/{baseSite}/users/anonymous/carts`

Response example: `{ "type": "cartWsDTO", "code": "00003000", "guid": "d1d5cd58-26c9-4a5e-9925-81ff56ef11aa", "totalItems": 0, "totalPrice": { "currencyIso": "USD", "value": 0 }, "totalPriceWithTax": { "currencyIso": "USD", "value": 0 } }`

Description: This call creates a new empty shopping cart on Hybris side for the user “anonymous” (as specified in URL). The guid attribute in response identifies the shopping cart, this attribute is to be used in further API calls related to this cart. BaseSite identifies the site from Hybris e-commerce (one Hybris instance might serve multiple sites).

2. Add product to the cart by Hybris product code

Request: `POST https://{host}:{port}/rest/v2/{baseSite}/users/anonymous/carts/{cartGuid}/entries`

Parameters: • qty – quantity of the product to be added, for example 1 • code – product code as defined in Hybris, for example 816780

Response example: `{ "entry": { "entryNumber": 0, "product": { "availableForPickup": true, "code": "816780", "name": "DSLR-A100H", "purchasable": true, "stock": { "stockLevel": 2 } }, "url": "/Open-Catalogue/Cameras/Digital-Cameras/Digital-SLR/DSLR-A100H/p/816780" }, "quantity": 1, "totalPrice": { "currencyIso": "USD", "value": 1086 } }, "quantity": 1, "quantityAdded": 1, "statusCode": "success" }`

Description: This request adds specified quantity (qty) of the product (code) to the cart, identified by guid (obtained in step 1). The unit of measure is specified in request, as in Hybris every product has unit of measure, which will be used automatically, as configured in Hybris. The response contains following important information: • statusCode – “success” if the product was added to the cart successfully; • entryNumber – number of the shopping cart entry that was created during this API call. Should be used in update quantity/delete cart entry requests.

3. Redirect to the Hybris shopping cart page

Request (end-customer should be redirected to the following URL): Redirect to <https://{host}:{port}/{webContext}/jump-in/cart/{cartGuid}>

No parameters are passed with this request to the Hybris. When browser is redirected to the following URL, the new anonymous session is created on Hybris side and shopping cart identified by {cartGuid} is restored. After this, user will be redirected to the Hybris cart page.

{webContext} should be explicitly provided by the Hybris team/customer, since this depends on the Hybris configuration (in some configurations the webContext is empty, therefore is not required; in some other cases the webContext differs from the hybris baseSite).

6 Appendix

Important Disclaimers and Legal Information

Coding Samples

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