

Integration Guide

CUSTOMER

SAP Asset Intelligence Network with SAP Cloud Platform Internet of Things
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Integration Guide: SAP Asset Intelligence Network with SAP Cloud Platform Internet of Things Service 2.0

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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	06-09-2018	<Change Description>
2.0	23-07-2019	Document Updated for 1906 release

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1 Introduction

The SAP Asset Intelligence Network (AIN) provides a collaborative network for manufacturers and customers. You can set manufacturers as your partners and can monitor their models and the statuses of these models.

Note

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

Caution

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 Cloud Platform Internet of Things.

The SAP Cloud Platform Internet of Things Service enables customers and partners to develop, customize, and operate Internet of Things business applications in the 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.

Note

This integration guide primarily discusses the overall technical implementation of SAP Asset Intelligence Network and its associated components. However, additional software dependencies might exist without being mentioned explicitly in this document.

Caution

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

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

Prerequisites

- You have the [CONFIGURATION_DELETE](#) or [CONFIGURATION_EDIT](#) role assigned to your user ID.
- You have access to the SAP Cloud Platform Integration Web UI 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. Choose the [SAP Asset Intelligence Network Integration with SAP Cloud for Customer and SAP Cloud Platform IoT Service 2.0](#) package.
4. Click [Copy](#).
5. Choose the [Design](#) tab from the side panel.
6. Choose the copied package, navigate to the [Artifacts](#) tab. Choose [▶ Actions ▶ Deploy ▶](#) for all the required artifacts that you want to establish integration with.
The `Integration_Flow` is deployed to the SAP Cloud Platform integration system.
7. To check the deployment status, choose the [Monitor](#) tab on the side panel and verify in the [Manage Integration Content](#) section.

3 Maintaining User Credentials

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

i Note

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

Prerequisites

You have access to 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: SAP Cloud Platform Internet of Things 2.0
Description	Provide a meaningful description
User	Provide the external system ID
Password	Provide the external system password

5. Choose [Deploy](#).

4 Retrieving Links from the Internet of Things Services Cockpit

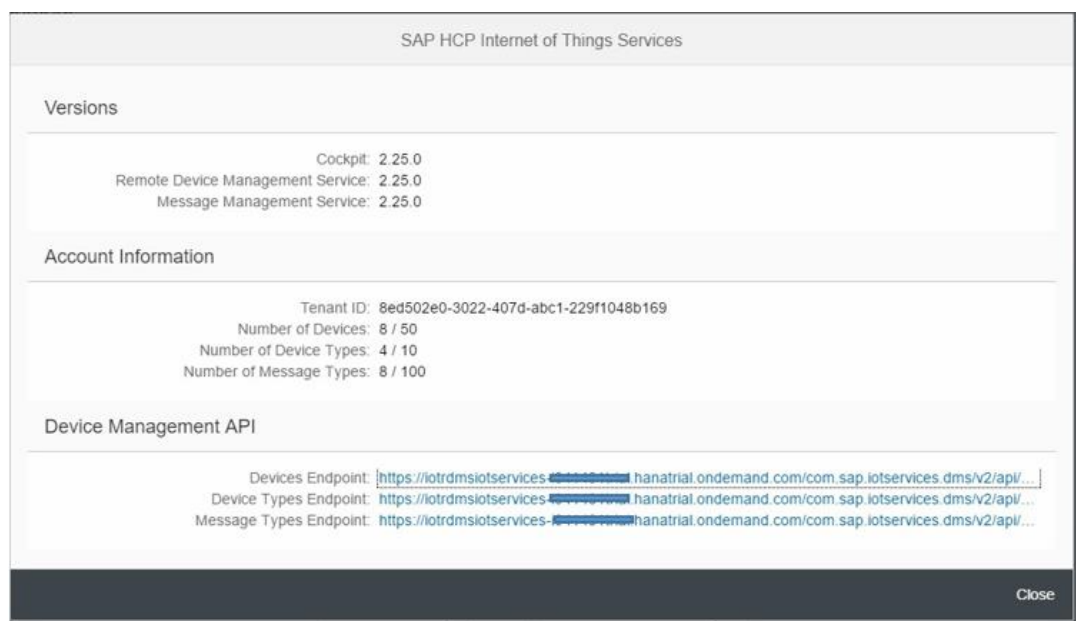
You perform this procedure to be able to enter the URL information while configuring the SAP Cloud Platform Internet of Things 2.0 with SAP Asset Intelligence Network.

Context

Using this procedure, you can retrieve the Remote Device Management Service (RDMS) and Message Management Service (MMS) links from the Internet of Things Services cockpit.

Procedure

1. Log on to *Internet of Things Services Cockpit*. For more information, see [SAP Cloud Platform Internet of Things for the Neo Environment](#).
2. Navigate to *MyUser* → *About IoT Services*
The *SAP HCP Internet of Things Services* screen is displayed.



3. Under the section, *Device Management API*, you can find the RDMS link.
4. Go to the *Application Data* screen and select *OData API*.

The link corresponding to [Service Root](#) pertains to the MMS link.

 Note

You use the preceding links while configuring the SAP Cloud Platform Internet of Things 2.0 with SAP Asset Intelligence Network.

5 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 Cloud Platform Internet of Things Service in SAP Asset Intelligence Network (only relevant for SAP Cloud Platform - Neo environment). Use the same procedure to configure other external systems such as SAP Cloud for Customer.

Prerequisites

- You have the CONFIGURATION_EDIT or CONFIGURATION_DELETE role

Procedure

Configure SAP Cloud Platform Integration as External System

- Log on to [SAP Asset Intelligence Network](#).
- Launch the [Application Settings](#) app.
- Navigate to **Systems** > **Add** → [SAP Cloud Platform Integration](#)

Note

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

- 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 Runtime (iflmap) URL of the SAP cCloud Platform 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
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- Choose *OK*.

You have configured the SAP Cloud Platform Integration system in SAP Asset Intelligence Network. In the next steps, you can configure SAP Cloud for Customer and SAP Cloud Platform IoT systems in SAP Asset Intelligence Network.

Configure the SAP Cloud Platform Internet Of Things 2.0 as External System

- Log on to SAP Asset Intelligence Network.
- Launch the *Application Settings* app.
- Choose the *Systems* tab.
- Choose *Add*.
- Choose the external system. For example: SAP Cloud Platform Internet Of Things 2.0.
- In the Add System dialog box, provide these details:

Field	Description
System Name	Provide a unique system name
Credential name	As provided when you added user credentials to your <i>SAP Cloud Platform integration</i> account.
System Status	Active or Inactive
URL Information	URL of the external system  Note While configuring the SAP Cloud Platform internet Of Things 2.0 Services, enter the RDMS and MMS links. For more information, you can refer to section 4 of this document
Additional Information	If required.

- Choose *OK*.

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

6 Mapping Indicators with an External System

You perform this activity to retrieve the indicator values of your equipment from an external system. When you have equipment data or machine data in an external system, you can retrieve that data by mapping your equipment to the external system.

Prerequisites

- The external system in question is already configured with SAP Asset Intelligence Network.
- Your user ID has the roles INDICATOR_DELETE or INDICATOR_EDIT assigned to it.
- You have created an item of equipment. For more information, see AIN application Help - [Creating an Item of Equipment](#).
- You have added Indicator as an attribute from the Templates app to an Equipment Template, and the equipment in question is associated with this equipment template. For more information, see AIN application Help - [Adding Indicator Groups and Indicators](#).

Context

In this procedure, you map indicators of equipment between an external system and SAP Asset Intelligence Network.

Procedure

1. Launch the Equipment application.
2. Open the item of equipment in question.
3. Scroll down to the *Indicators* section.
4. Click on *Map Indicators* button.

Note

You will see the indicators in this section only if you have already associated it with an equipment template and only those indicators that are edited to add additional properties at the equipment page. For more details, see AIN application Help - [Adding Indicator Groups and Indicators](#).

5. In the *Map Indicators* window, enter the following:

Field	Description
System Name	Choose the name of the external system. For example: SAP Cloud Platform Internet of Things
Machine Name	The corresponding equipment name in the external system.

6. Under the *AIN Indicators* section, select an indicator and choose the corresponding sensor/indicator under *External System Indicators* by selecting *Map*.
7. Choose *Save*.

You see the new indicator values appear on the *Equipment* object page.

Note

- You can see the latest values on the indicator cards in Equipment object page only if the Indicator's aggregation type is chosen as "None", otherwise you will see the aggregated values based on the type of aggregation chosen for the indicator.
- Only indicators associated with an equipment template can be mapped.
- The mapping will only work for numeric values.

7 Appendix

Important Disclaimers and Legal Information

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. SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code, unless damages were caused by SAP intentionally or by SAP's gross negligence.

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