## Typographic Conventions

<table>
<thead>
<tr>
<th>Type Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Example</em></td>
<td>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.</td>
</tr>
<tr>
<td>Example</td>
<td>Emphasized words or expressions.</td>
</tr>
<tr>
<td>EXAMPLE</td>
<td>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.</td>
</tr>
<tr>
<td>Example</td>
<td>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.</td>
</tr>
<tr>
<td>Example</td>
<td>Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
</tr>
<tr>
<td>&lt;Example&gt;</td>
<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
</tr>
<tr>
<td>EXAMPLE</td>
<td>Keys on the keyboard, for example, F2 or ENTER.</td>
</tr>
</tbody>
</table>
Document History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>06-09-2018</td>
<td>&lt;Change Description&gt;</td>
</tr>
<tr>
<td>2.0</td>
<td>23-07-2019</td>
<td>Document Updated for 1906 release</td>
</tr>
</tbody>
</table>
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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.

**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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a name denoting the system you are going to configure. For example: SAP Cloud Platform Internet of Things 2.0</td>
</tr>
<tr>
<td>Description</td>
<td>Provide a meaningful description</td>
</tr>
<tr>
<td>User</td>
<td>Provide the external system ID</td>
</tr>
<tr>
<td>Password</td>
<td>Provide the external system password</td>
</tr>
</tbody>
</table>

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.

   ![SAP HCP Internet of Things Services](image)

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

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Type</td>
<td>SAP Cloud Platform Integration (auto populated)</td>
</tr>
<tr>
<td>System Name</td>
<td>Enter a unique system name</td>
</tr>
<tr>
<td>System Status</td>
<td>Set to Active</td>
</tr>
<tr>
<td>URL Information</td>
<td>Provide the Runtime (iflmap) URL of the SAP cLoud Platform Integration system. For example: <a href="https://cd2ain1-iflmap.hcisb.hana.ondemand.com/">https://cd2ain1-iflmap.hcisb.hana.ondemand.com/</a></td>
</tr>
<tr>
<td>Additional Information</td>
<td>Fill in additional information as necessary</td>
</tr>
</tbody>
</table>
5. 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**

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. For example: SAP Cloud Platform Internet Of Things 2.0.
6. In the Add System dialog box, provide these details:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Name</td>
<td>Provide a unique system name</td>
</tr>
<tr>
<td>Credential name</td>
<td>As provided when you added user credentials to your <strong>SAP Cloud Platform integration</strong> account.</td>
</tr>
<tr>
<td>System Status</td>
<td>Active or Inactive</td>
</tr>
<tr>
<td>URL Information</td>
<td>URL of the external system</td>
</tr>
<tr>
<td>Note</td>
<td>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</td>
</tr>
<tr>
<td>Additional Information</td>
<td>If required.</td>
</tr>
</tbody>
</table>

7. 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:
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Name</td>
<td>Choose the name of the external system. For example: SAP Cloud Platform Internet of Things</td>
</tr>
<tr>
<td>Machine Name</td>
<td>The corresponding equipment name in the external system.</td>
</tr>
</tbody>
</table>

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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