



Administration Guide | PUBLIC  
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# Setting Up SAP Intelligent Product Recommendation

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# 1 Subscribing to SAP Intelligent Product Recommendation Applications

Subscribe to the SAP Intelligent Product Recommendation applications from your **SAP Business Technology Platform** subaccount.

## Context

Subaccounts help you in managing and organizing the global account of your project with respect to its members, their authorizations, and entitlements.

## Procedure

1. Create a subaccount.
  - a. Launch [SAP BTP Cockpit](#).
  - b. Choose [► Create ► Subaccount ►](#) and enter the following information in the [Create Subaccount](#) dialog.

Field Name	Description
Display Name (Mandatory)	Name of the subaccount
Description (Optional)	Description of the subaccount along with any additional details
Subdomain (Mandatory)	Part of the URL, which is used to access all the SAP Intelligent Product Recommendation apps
Region (Mandatory)	Desired server location
Parent (Mandatory)	Parent account of your subaccount

- c. Choose [Create](#).

This system creates a subaccount for you, which you can view in the [Account Explorer](#) page under the [Subaccounts](#) tab.

2. Subscribe to an application.
  - a. Choose your subaccount in [► Account Explorer ► Subaccounts ►](#).
  - b. In the left-hand pane, choose [► Services ► Instances and Subscriptions ►](#).
  - c. In the [Subscriptions](#) tab, choose the following applications to open their Overview page and choose [Subscribe](#).

## Related Information

[Create a Subaccount](#)

[Subscribe to Multitenant Applications Using the Cockpit](#)

## 2 Prerequisites for Setting Up SAP Intelligent Product Recommendation

List of things to do before setting up SAP Intelligent Product Recommendation.

- You've received a welcome email from SAP for your global account.
- You have set up your global account and subaccount. For more information, refer to [Managing Global Accounts Using the Cockpit](#) and [Managing Subaccounts Using the Cockpit](#).
- You're assigned the **Administrator** role for the global account.
- You've created a space in your Cloud Foundry organization. For more information, refer to [Create Cloud Foundry Spaces Using the Cockpit](#).

### Note

To be able to create a space, you have to enable your subaccount as Cloud Foundry organization. To do this, choose [Enable Cloud Foundry](#).

- **SAP Intelligent Product Recommendation Update for Subscriptions After July 14, 2025**  
Starting July 14, 2025, access to SAP Intelligent Product Recommendation APIs will require a secure and authenticated access mechanism. This is enabled exclusively through SAP Identity Authentication Service (IAS).  
**For New Subscriptions (After July 14, 2025)**  
Customers subscribing to services after July 14, 2025, must manually create an IAS tenant.  
**Prerequisite:** Create an IAS Tenant. For more information refer to [Configure IAS Tenant and Establish Trust between the Subaccount and the created IAS Tenant | SAP Help Portal](#)  
**For Existing Subscriptions (Before July 14, 2025)**  
To use the Product Recommendation APIs or to migrate to the new IAS based authentication model, you need to have the prerequisite below:  
**Prerequisite:** Create an IAS Tenant. For more information refer to [Configure IAS Tenant and Establish Trust between the Subaccount and the created IAS Tenant | SAP Help Portal](#)  
**Migration Option:** To migrate to the new IAS provisioning model, please create a support ticket with SAP. Migrating to the new model, ensures API access, better security, and compatibility with new SAP features

# 3 Configure IAS Tenant and Establish Trust between the Subaccount and the created IAS Tenant

This page walks you through the step-by-step process of configuring an Identity Authentication Service (IAS) Tenant in the Subaccount and establish trust between the Subaccount and the created IAS Tenant.

## Procedure

1. **Create a new Cloud Identity Service Instance.**
    - a. Go to **Instances and Subscriptions** on BTP cockpit.
    - b. Click **Create**.
    - c. Select Cloud Identity Services.
    - d. Select **Plan** as **application**
    - e. Select **Runtime Environment** as **Other** and provide an Instance Name.
    - f. Click **Next** and then click **Finish**.
    - g. Cloud Identity services (IAS Tenant) is created.
  2. **Establish Trust between the Subaccount and the created IAS Tenant.**
    - a. Navigate to the Subaccount *Trust Configuration* section in the BTP cockpit.
    - b. Click *Establish Trust*.
    - c. Choose the created IAS Tenant.
    - d. Select the **Domain** for trust mapping.
    - e. Configure the necessary parameters.
    - f. Click *Finish* to complete the setup.
  3. **Manage Users**
    - a. Tenant administrators can manage user accounts via the administration console for SAP Cloud Identity Services, and via APIs. For more information refer to [Managing Users | SAP Help Portal](#).
- For more information about Cloud Identity Services, refer to [SAP Cloud Identity Services](#).

## 4 Entitlements for SAP Intelligent Product Recommendation

When you purchase an enterprise account, you're entitled to use a specific set of resources, such as the amount of memory that can be allocated to your applications.

You can manage entitlements and quotas at the global account level, and distribute to subaccounts so that they can be consumed by the subaccounts. When you free a quota at the subaccount level, it becomes available again at the global account level.

### Note

You must be a global account administrator to be able to configure entitlements and quotas.

### Related Information

[Managing Entitlements and Quotas Using the Cockpit](#)  
[Configure Entitlements and Quotas for Subaccounts](#)

# 5 Introduction to Setting Up SAP Intelligent Product Recommendation

SAP Intelligent Product Recommendation helps you to build an intelligent guided buying experience. This guide describes the steps that you need to perform for setting up SAP Intelligent Product Recommendation.

Administration tasks in SAP Intelligent Product Recommendation include management and configuration of global accounts and subaccounts, users, role collections along with connecting to various systems.

## 6 APIs for SAP Intelligent Product Recommendation

The Product Recommendation service APIs enable you to receive intelligent product and configuration suggestions based on the inputs you provide. These APIs analyze your specific needs and match them with suitable products and their technical configurations, helping you streamline decision making and enhance your guided selling experience.

You can design tailored, machine learning (ML)-powered digital assistants to streamline your sales processes and improve the customer experience. By leveraging advanced algorithms, the system analyzes product, sales, and market data along with end-customer preferences to generate valuable insights. It provides relevant product recommendations to your sales teams and customers, both from a technical and commercial perspective.

### Prerequisite

An IAS Tenant must be created in SAP marketplace. For more information refer to [Configure IAS Tenant and Establish Trust between the Subaccount and the created IAS Tenant | SAP Help Portal](#)

### Procedure

1. To Create and Configure the IAS Application and use the Product Recommendation APIs, perform the following steps in the IAS Admin Console:
  1. Log in to your IAS Tenant Admin.
  2. Navigate to **Applications** under **Applications & Resources**.
  3. Click on **Create**, enter the **Display Name**, and select **Protocol Type** as **OpenID Connect**.
  4. Open the created application and go to **Application APIs** and then **Dependencies**.
  5. Click **Add**.
  6. Enter a Dependency Name, then select the Application that starts with **iipr-ias-service** (Subaccount) and **APIs** **iipr\_runtime\_api**. Note the Dependency Name.
  7. Under **Application APIs**, go to **Client Authentication** and **Add Secret**.
  8. Save the credentials — they are required for generating tokens.
2. **Generate Tokens Using OAuth2:** Use the following curl commands to generate tokens. Replace the placeholder values accordingly.

- **Generate Initial Token:**

```
curl --request POST \  
--url <IAS-TENANT-URL>/oauth2/token \  
--header 'accept: application/json' \  
--header 'content-type: application/x-www-form-urlencoded' \  
--data client_id=<CLIENT_ID> \  
--data 'client_secret=<CLIENT_SECRET>' \  
--data grant_type=password \  
--data scope=openid \  
--data token_format=jwt \  
--data jq -r '.access_token' \  
--data username=<USERNAME> \  
--data password=<PASSWORD>
```

- **Exchange for Final Token:**

```
curl --request POST \
--url <IAS-TENANT-URL>/oauth2/token \
--header 'accept: application/json' \
--header 'content-type: application/x-www-form-urlencoded' \
--data client_id=<CLIENT_ID> \
--data 'client_secret=<CLIENT_SECRET>' \
--data grant_type=urn:ietf:params:oauth:grant-type:jwt-bearer \
--data assertion=<TOKEN generated in above step> \
--data resource=urn:sap:identity:application:provider:name:<DEPENDENCY NAME> \
--data token_format=jwt \
--data jq -r '.access_token' \
```

- **Sample API call to retrieve Needs Attribute**

```
curl --request GET \ --url '<BackendURL>/odata/v4/ProductRecommendationService/NeedsAttributes?
language=en' \ --header 'authorization: Bearer <Token generated in step 2>' \ --header 'content-type:
application/json'
```

Placeholder Reference Table

Placeholder	Description
IAS-TENANT-URL	Administration URL of the Cloud Identity Services portal.
CLIENT_ID	The Client ID created while adding a Secret.
CLIENT_SEC	The Client Secret paired with the Client ID.
USERNAME	Enter the IAS Tenant log in Email id.
PASSWORD	The password associated with the IAS Tenant username.
DEPENDENCYNAME	Enter the Dependency name you created in step 1.

This curl command retrieves the list of Needs Attributes from the Product Recommendation Service. These attributes define customer requirements that are later used to suggest suitable products.

### Note

- Replace <BackendURL> with the Base URL of the subscribed application.
- cURL is a command-line tool that you can use to get or send data including files using URL syntax. On Windows 10, cURL is included by default.

### Example

Here are a few sample URLs for IPR-PROD for reference:

**PROD EU10** : <https://intelligentprodrecmdnsrv.eu10.ipr.cloud.sap>

**PROD EU11** : <https://intelligentprodrecmdnsrv.eu11.ipr.cloud.sap>

**PROD US10** : <https://intelligentprodrecmdnsrv.us10.ipr.cloud.sap>

## 6.1 Product Categories

This service enables you to read the Product Recommendation Model of each product category. It is based on the OData protocol and can be consumed in external systems, Fiori applications, and other user interfaces.

### Technical Details

Service Name	Version
ProductCategories	1.0.0

### Service Structure

The service contains all the data relevant to Product Categories. Based on the language passed on the request, we get the Product category description and language as response. If any issues arise when these details are retrieved, the system displays error messages in the response.

#### Entities

Entity	Description	Necessity
ProductCategories	Product Categories	Mandatory

### Service Response

Entity	Description
200	OK

### Constraints

With this service, it is not possible to:

- Create a new product category
- Delete the product category
- Update the product category

## Authentication

This service uses **OAuth2** security protocol.

## Additional Information

Link to the API on the SAP Business Accelerator Hub:

[SAP Intelligent Product Recommendation](#) 

## 6.2 Needs Attributes

This service enables you to get the Needs attributes and corresponding language specific description and type of attribute (if Code list or Numeric) for a particular product category. It is based on the OData protocol, and can be consumed in external systems, Fiori applications and on other user interfaces.

### Technical Details

Service Name	Version
NeedsAttributes	1.0.0

### Service Structure

The service contains all the needs attributes relevant to a Product Category. Based on the language passed on the request and the Product category as filter condition, we get the Product Category, Name, Description, Sequence Number, Type, UoMISOCCode and language as response. If any issues arise when these details are retrieved, the system displays error messages in the response.

Entities

Entity	Description	Necessity
NeedsAttributes	Needs Attributes	Mandatory

## Service Response

Entity	Description
200	OK

## Constraints

With this service, it is not possible to:

- Create a new Needs attribute
- Delete the Needs attribute
- Update the Needs attribute

## Authentication

This service uses **OAuth2** security protocol.

## Additional Information

Link to the API on the SAP Business Accelerator Hub:

[SAP Intelligent Product Recommendation](#)

## 6.3 Needs Attribute Values

This service enables you to get the needs attribute values and corresponding language-specific description for a particular need attribute (if it is Code List Type). It is based on the OData protocol and can be consumed in external systems, Fiori applications, and other user interfaces.

## Technical Details

Service Name	Version
NeedsAttributeValues	1.0.0

## Service Structure

The service contains all the needs attributes values relevant to a Needs Attribute. Based on the language and needsAttributeName passed on the request we get the attribute value, description, position number and language as response. If any issues arise when these details are retrieved, the system displays error messages in the response.

### Entities

Entity	Description	Necessity
NeedsAttributeValues	Needs Attribute Values	Mandatory

## Service Response

Entity	Description
200	OK

## Constraints

With this service, it is not possible to:

- Create a new Needs attribute value
- Delete the Needs attribute value
- Update the Needs attribute value

## Authentication

This service uses OAuth2 security protocol.

## Additional Information

Link to the API on the SAP Business Accelerator Hub:

[SAP Intelligent Product Recommendation](#)

## 6.4 Recommend Products

This service enables you to get the list of recommended products with confidence score, language specific description of product, corresponding configuration determination model and commercial attributes determination model by passing the **productRecommendationModel** (received from Product Categories service) and Needs attributes name value pairs (received from Needs Attributes service). It is based on the OData protocol, and can be consumed in external systems, Fiori applications and on other user interfaces.

### Technical Details

Service Name	Version
RecommendProducts	1.0.0

### Service Structure

This service enables you to get the list of recommended products with confidence score. Based on the language, productRecommendationModel and needsAttribute value pairs passed on the request we get the solution, configurationDeterminationModel, commercialAttributesDeterminationModel, productid, product description, language and confidence score as response. If any issues arise when these details are retrieved, the system displays error messages in the response.

#### Entities

Entity	Description	Necessity
RecommendProducts	Recommend Products	Mandatory

### Service Response

Entity	Description
201	Created

## Constraints

With this service, it is not possible to:

- Delete the Recommend Products
- Update the Recommend Products

## Authentication

This service uses OAuth2 security protocol.

## Additional Information

Link to the API on the SAP Business Accelerator Hub:

[SAP Intelligent Product Recommendation](#)

## 6.5 Recommend Configuration

This service enables you to get the technical configuration of a particular product with confidence score, product attribute, product attribute value, corresponding language specific descriptions and material variant details by passing the configuration determination model (received from Recommend Products service) and Needs Attributes name value pairs (received from Needs Attributes service). If commercial attributes like lead time and price need to be retrieved the corresponding commercial attributes determination model (received in Recommend Products service) need to be passed as well. It is based on the OData protocol, and can be consumed in external systems, Fiori applications and on other user interfaces.

## Technical Details

Service Name	Version
RecommendConfiguration	1.0.0

## Service Structure

This service enables you to get the technical configuration of a product. Based on the language, productid and needsAttribute value pairs, commercialAttributesDeterminationModel and configurationDeterminationModel

passed on the request we get the products configuration which includes attributename, attribute description, attribute value, attribute value description, confidencescore, UoMISOCODE, sequenceNo. We also get commercialAttributes details which includes leadTime, unitNetPrice, unitGrossPrice, unitCogs, maxUnitNetPrice, minUnitNetPrice, maxUnitGrossPrice, minUnitGrossPrice, maxUnitCogs, minUnitCogs, margin, discount and currency. We also get material variants details like leadTime, variantName, fit and variant configurations. If any issues arise when these details are retrieved, the system displays error messages in the response.

## Entities

Entity	Description	Necessity
RecommendConfiguration	Recommend Configuration	Mandatory

## Service Response

Entity	Description
201	Created

## Constraints

With this service, it is not possible to:

- Delete the Recommend Configuration
- Update the Recommend Configuration

## Authentication

This service uses OAuth2 security protocol.

## Additional Information

Link to the API on the SAP Business Accelerator Hub:

[SAP Intelligent Product Recommendation](#)

## 6.6 Extract Needs from Text

This service analyzes a given input text—such as a paragraph from a tender document, email, or informal request. and automatically extracts needs attribute values relevant to a product category. It helps map user requirements to attributes relevant to a product and helps in product recommendation and configuration.

### Technical Details

Service Name	Version
ExtractNeedsFromText	1.0.0

### Service Structure

The service contains all the data relevant to Product Categories. Based on the language, Product category and userText passed as request, we get the needsAttributes corresponding to ProductCategory as response. If any issues arise when these details are retrieved, the system displays error messages in the response.

#### Entities

The entities contain the business data of the service.

Entity	Description	Necessity
ExtractNeedsFromText	This entity consists of Product category and userText	Mandatory

### Service Response

Entity	Description
200	OK

### Constraints

With this service, it is not possible to:

- Delete the NeedsAttribute
- Update the NeedsAttribute

## Authentication

This service uses OAuth2 security protocol.

## Additional Information

Link to the API on the SAP Business Accelerator Hub:

[SAP Intelligent Product Recommendation](#) 

# 7 RAP OData V4 Web API Activation

API\_SLSDOCITMVARCONFIGN is a RAP OData V4 Web API in SAP Intelligent Product Recommendation.

## ⚠ Restriction

This API is only for SAP Intelligent Product Recommendation, and **must not** be used for any other use cases.

## Related Information

[Publish a Service Group](#)

# 8 Connecting SAP BTP to SAP S/4HANA

Connect SAP BTP to SAP S/4HANA for allowing SAP Intelligent Product Recommendation to read and retrieve master data from the SAP S/4HANA system.

1. [Configuring Cloud Connectors \[page 22\]](#)  
Cloud connectors allow you to connect to the on-premise systems that you want to access.
2. [Creating a Role for Technical Communication User \[page 24\]](#)  
Create a role that comprises all authorizations that are necessary for technical communication between SAP Intelligent Product Recommendation and your SAP S/4HANA system.
3. [Creating and Configuring Destinations in SAP BTP Cockpit for SAP Intelligent Product Recommendation \[page 25\]](#)

## 8.1 Configuring Cloud Connectors

Cloud connectors allow you to connect to the on-premise systems that you want to access.

### Context

Install cloud connector within your network to establish connection between SAP Intelligent Product Recommendation and SAP S/4HANA.

### Procedure

#### Add your Subaccount

1. Launch your cloud connector subaccount administration.
2. Add your subaccount by choosing [+ Add Subaccount](#).
3. In the [Add Subaccount](#) dialog, enter the following information.

Option	Description
Region	Region of the subaccount
Subaccount	Subaccount ID
Display Name	
Subaccount User	

Option	Description
Password	
Location ID	
Description	

4. Choose [Save](#).

#### Add your Systems

5. Choose [Select Subaccount](#) to add the required systems that you want to connect to.
6. In the [Select Subaccount](#) dialog, select your subaccount name from the list.
7. In [Cloud To On-Premise](#), choose **+** to add a system.
8. In the [Add System Mapping](#) wizard, enter the following information.

Option	Description
Back-end Type	ABAP System
Protocol	HTTP or HTTPS
Virtual Host	Host name to be used in SAP Business Technology Platform destination to address the S/4HANA system. Any host name can be used, recommendation is to use a string rather than a virtual IP address.
Virtual Port	Port number that is used in SAP Business Technology Platform destination to address the S/4HANA system.
Internal Host	Host of your S/4HANA system.
Internal Port	HTTP or HTTPS port of your S/4HANA system.
Principal Type	None
System Certification for Logon	
Host In Request Header	

9. Choose [Save](#).


#### Add your Resources

10. Add the paths to be accessed by choosing **+** in the [Resources of <internal host>](#) section.
11. In the [Edit Resource](#) dialog, enter the following information.

Option	Description
URL Path	
Active	
WebSocket	
Access Policy	
Description	

12. Choose [Save](#).

#### Check your Connection

13. Check the connection to your system by choosing 

## Results

You can see Cloud Connectors in your SAP BTP Cockpit subaccount.

**Task overview:** [Connecting SAP BTP to SAP S/4HANA \[page 22\]](#)

**Next task:** [Creating a Role for Technical Communication User \[page 24\]](#)

## Related Information

[Cloud Connector Installation](#)

## 8.2 Creating a Role for Technical Communication User

Create a role that comprises all authorizations that are necessary for technical communication between SAP Intelligent Product Recommendation and your SAP S/4HANA system.

### Context

When you configure a destination, you need to specify the technical user that is used to access data within SAP Intelligent Product Recommendation on SAP Business Technology Platform through the cloud connector in SAP S/4HANA. Create a role that contains the necessary authorizations and assign it to this technical user in the SAP S/4HANA system. You can use the role administration functions (transaction `PF09`) to manage roles and authorization data.

### Procedure

1. Launch your SAP S/4HANA system.
2. Follow the steps given in [Creating Single Roles](#).
3. Add the following authorization objects.
  - `V_VBAK_AAT`
  - `V_VBAK_VKO`

## Next Steps

Once you've created the role, assign it to a technical user's master record when you define the destination for technical communication between SAP Intelligent Product Recommendation and your SAP S/4HANA system.

**Task overview:** [Connecting SAP BTP to SAP S/4HANA \[page 22\]](#)

**Previous task:** [Configuring Cloud Connectors \[page 22\]](#)

**Next task:** [Creating and Configuring Destinations in SAP BTP Cockpit for SAP Intelligent Product Recommendation \[page 25\]](#)

## 8.3 Creating and Configuring Destinations in SAP BTP Cockpit for SAP Intelligent Product Recommendation

### Context

### Procedure

[Creating and Configuring SAP S/4HANA Destination in SAP BTP Cockpit \[page 26\]](#)

The HTTP destinations at the subaccount level provide information for connecting SAP Intelligent Product Recommendation to SAP S/4HANA system.

[Creating and Configuring Destination for SAP Sales Cloud \[page 27\]](#)

The HTTP destinations at the subaccount level provide information for connecting SAP Intelligent Product Recommendation to SAP Sales Cloud.

[Integration with SAP Variant Configuration and Pricing \[page 28\]](#)

Configuration details to set up SAP Intelligent Product Recommendation integration with SAP Variant Configuration and Pricing.

**Task overview:** [Connecting SAP BTP to SAP S/4HANA \[page 22\]](#)

**Previous task:** [Creating a Role for Technical Communication User \[page 24\]](#)

## 8.3.1 Creating and Configuring SAP S/4HANA Destination in SAP BTP Cockpit

The HTTP destinations at the subaccount level provide information for connecting SAP Intelligent Product Recommendation to SAP S/4HANA system.

### Procedure

1. Choose your subaccount in the *Subaccounts* tab.
2. Choose **► Connectivity ► Destinations ►**.
3. Choose *New Destination*.
4. In *Destination Configuration* in the *Blank Template* tab, enter the following information.

Field	Value
Name (Mandatory)	S4_BACKEND
Type (Optional)	HTTP
Description (Optional)	Leave it blank
URL (Optional)	Address as defined in the cloud connector
Proxy Type (Optional)	OnPremise
Authentication (Optional)	BasicAuthentication. For more information, refer to <a href="#">Security Recommendations for SAP Intelligent Product Recommendation</a> .
Location ID	Leave it blank
User	Technical communication user that is used in SAP S/4HANA
Password	Password of the technical communication user

#### Note

You can have additional properties. If you add *sap-client* in the *Additional Properties* area, enter the client from your SAP S/4HANA system.

5. Choose *Save*.

### Related Information

[Connectivity in the Cloud Foundry Environment](#)

## 8.3.2 Creating and Configuring Destination for SAP Sales Cloud

The HTTP destinations at the subaccount level provide information for connecting SAP Intelligent Product Recommendation to SAP Sales Cloud.

### Context

### Procedure

1. Choose your subaccount in the *Subaccounts* tab.
2. Choose ► *Connectivity* ► *Destinations* ►.
3. Choose *New Destination*.
4. In *Destination Configuration* in the *Blank Template* tab, enter the following information.

Field	Value
Name (Mandatory)	SALESCLOUD_DESTINATION
Type (Optional)	HTTP
Description (Optional)	Leave it blank
URL (Optional)	Your SAP Sales Cloud tenant URL
Proxy Type (Optional)	Internet
Authentication (Optional)	BasicAuthentication. For more information, refer to <a href="#">Security Recommendations for SAP Intelligent Product Recommendation</a> .
Location ID	Leave it blank
User	User name credential
Password	Password of the user
Additional Properties	
Property Name	Value
HTML5.DynamicDestination	true
HTML5.Timeout	60000
WebIDEnabled	true

Select *Use default JDK truststore*.

5. Choose *Save*.

## 8.3.3 Integration with SAP Variant Configuration and Pricing

Configuration details to set up SAP Intelligent Product Recommendation integration with SAP Variant Configuration and Pricing.

### Destination Configuration

Field	Value
Name (Mandatory)	CPS_DESTINATION
Type (Optional)	HTTP
Description (Optional)	Leave it blank
URL (Optional)	Address as defined in the cloud connector
Proxy Type (Optional)	Internet
Authentication (Optional)	OAuth2ClientCredentials
Client ID (Mandatory)	
Client Secret	
Token Service URL type	
Token Service User	
Token Service Password	

### Additional Properties

Set `WebIDEEEnabled` to be true, and select *Use default JDK truststore*.

### Related Information

[Creating and Configuring a Destination in SAP BTP Cockpit](#)

# 9 Managing Users, Roles, and Role Collections

For business users, an application offers authorization artefacts. With this data, you can create roles, arrange them into collections, and assign those collections to certain business users or user groups.

## Prerequisites

You've configured your own instance of SAP Business Technology Platform Instance and Authorization Service. You have created users in created business users and user groups in your identity provider (IdP).

## Context

If you use the SAP Business Technology Platform Identity Authentication service, you can find more information in the SAP Business Technology Platform documentation in [Manually Establish Trust and Federation Between UAA and Identity Authentication](#). If you use a different IdP, you can find more information in [Establish Trust and Federation with UAA Using Any SAML Identity Provider](#).

## Procedure

1. Create role collections by choosing **► Security ► Role Collections** **▾**, and perform the following substeps.
  - a. Choose **+** (*Add a role*) to create a role collection.
  - b. In the *Create Role Collection* dialog, enter a role name, and description.
  - c. Choose *Create*.
2. Create users by choosing **► Security ► Users** **▾**.
3. Choose *Create*.
4. In the *New Role* dialog, perform the following substeps.
  - a. Enter a user name.
  - b. Select an identity provider.
  - c. Enter the email ID of the user.
  - d. Choose *Create*.
5. Choose **► Services ► Instances and Subscriptions** **▾**.
6. In the *Subscriptions* tab, in the SAP Intelligent Product Recommendation row, choose **⋮** (*Actions*) and *Manage Roles*.

7. In the *Roles by Role Template* section of SAP Intelligent Product Recommendation, choose + (*Add a role*).
8. In the *Create Role* wizard, perform the following substeps.
  - a. Enter a role name, description (optional), and select a role template from the dropdown list and choose *Next*.
  - b. Skip *Configure Attributes* and choose *Next*.
  - c. In the *Select Role Collections*, enter the role collections in the *Search* field to assign the role to it, choose *Next*.
  - d. In the final screen, review your role details, and choose *Finish*.

## Related Information

[Working with Users](#)

[Working with Role Collections](#)

[Mapping Role Collections in Subaccounts](#)

## 9.1 Role Collections in SAP Intelligent Product Recommendation

You can use role collections to group authorizations within and between applications because it comprises of one or more roles from one or more applications.

SAP Intelligent Product Recommendation has four roles collections, and six roles. A role collection consists of one or more roles from one or more applications and can be used to bundle authorizations within and across applications.

Role Collections

Name	Description	Roles	Roles Template
Administrator	Responsible for exporting data in the <b>Data Export</b> app.	Maintain_DE Auditlog_Auditor	Maintain_DE Auditlog_Auditor
Administrator	Responsible for creating units of measure, characteristics, and products in the <b>Manage Characteristics and Products</b> app.	Maintain_MD	Maintain_MD
Administrator	Responsible for accessing the <b>Maintain Settings</b> app, and making changes within it.	Maintain_ST	Maintain_ST

Name	Description	Roles	Roles Template
Internal Sales Representative	Responsible for choosing the right products for their business requirements in the <b>Intelligent Product Recommendations</b> app.	Maintain_RT	Maintain_RT
Machine Learning Specialist	Responsible for creating, modifying, and updating datasets to be used for machine learning trainings in the <b>Manage Data Ingestion and Transformation</b> app.  Responsible for creating machine learning profiles, and models in the <b>Manage Machine Learning Lifecycle</b> app. A machine learning specialist is also responsible for training the ML models, and deploying them.	Maintain_DP	Maintain_DP
		Maintain_ML	Maintain_ML
Product Manager	Responsible for creating product categories, solutions, and assignments of configurable products to solutions in the <b>Manage Product Categories</b> app.  Responsible for creating product selection profiles (IPSP), needs profiles, and configuration profiles for product recommendations. Also, responsible for activating product selection profiles in the <b>Manage Intelligent Product Selection Profiles</b> app.	Maintain_DM	Maintain_DM
Administrator	Responsible for maintaining currency definitions and conversion factors in the <b>Manage Currencies and Conversion Factors</b> app.	Maintain_CC	Maintain_CC
Product Manager	Responsible for managing product to product mapping in the <b>Manage Product Mapping</b> app.	Maintain_PM	Maintain_PM

Name	Description	Roles	Roles Template
Administrator	Responsible for maintaining data privacy-related tasks such as, managing personal data, setting its retention period and deleting it.	DataPrivacyUser	DataPrivacyUser
		DataProtectionOfficer	DataProtectionOfficer
		DeleteDataSubject	
Product Manager	Responsible for refining the bidding evaluation criteria in the <b>Managing Bidding Evaluation Criteria</b> app. Also responsible for creating templates with terms, conditions and clauses under the <b>Manage Smart Bidding Template</b> app.	Maintain_AIAssistedBidding_DM	Maintain_AIAssistedBidding_DM
Internal Sales Representative	Responsible for analyzing the tender document with the tender template in the <b>AI Assisted Bidding</b> app to identify matches and gaps.	Maintain_RT	Maintain_RT

# 10 Uploading Characteristics, Products, and Units of Measure Manually

If you don't have connectivity to SAP S/4HANA system, you can still upload units of measure, characteristics and product-related information using documents or spreadsheets.

## Prerequisites

- You've the Maintain\_DM role assigned to you.
- You aren't connected to any SAP S/4HANA system.

## Context

You can upload documents or files containing characteristics and products, which are subsequently transferred to the Manage Product Categories and Manage Intelligent Product Selection Profiles applications for the product managers to use when creating product categories and product selection profiles respectively.

### Note

You can upload files of CSV file format only. For downloading, the application supports JSON file format for product categories, and product selection profiles. For datasets, the application supports CSV file format within a zipped folder.

1. [Exporting Documents \[page 34\]](#)  
Export your data from SAP Intelligent Product Recommendation to your local system.
2. [Generating Template \[page 34\]](#)  
You can generate templates that you can use to fill up with data for setting up product categories and IPSPs in SAP Intelligent Product Recommendation if you don't have S4\_BACKEND configured as a destination for your tenant.
3. [Uploading Documents \[page 35\]](#)  
You can upload data to set up product categories and IPSPs in SAP Intelligent Product Recommendation if you don't have S4\_BACKEND configured as a destination for your tenant.

## 10.1 Exporting Documents

Export your data from SAP Intelligent Product Recommendation to your local system.

### Procedure


1. Launch the *My Data Management* application.
2. Choose *Generate Document*.
3. In the *Generate Document*, select an object whose data you want to export.

#### Note

If you choose **dataset** as the object, select values for the additional fields that appear in the *Generate Document* dialog box.

4. Choose *Generate*.

The generated document appears in the table as a ZIP file. The documents containing dataset information are in CSV format, and the documents containing the product selection profiles and product categories information are in JSON format.

5. Choose  to download the document to your local system.







**Task overview:** [Uploading Characteristics, Products, and Units of Measure Manually \[page 33\]](#)

**Next task:** [Generating Template \[page 34\]](#)

## 10.2 Generating Template

You can generate templates that you can use to fill up with data for setting up product categories and IPSPs in SAP Intelligent Product Recommendation if you don't have S4\_BACKEND configured as a destination for your tenant.

### Procedure

1. Launch the *My Data Management* application.
2. Choose  *Generate Template*  *Configurable Product List*  if you want a template to fill with product details, or choose  *Generate Template*  *Characteristics*  if you want a template for characteristics.
3. Choose *Generate*.

The generated template for the required object appears in the table.

4. Choose [↓ Download](#) to download the template to your local system.

**Task overview:** [Uploading Characteristics, Products, and Units of Measure Manually \[page 33\]](#)

**Previous task:** [Exporting Documents \[page 34\]](#)

**Next task:** [Uploading Documents \[page 35\]](#)

## 10.3 Uploading Documents

You can upload data to set up product categories and IPSPs in SAP Intelligent Product Recommendation if you don't have S4\_BACKEND configured as a destination for your tenant.

### Prerequisites




- Ensure the document that you want to upload is free of viruses.
- Ensure the cell values of the file that you upload don't begin with these characters: equal sign (=), plus sign (+), at sign (@), tab (0x09), and carriage return (0x0D).
- Ensure that the unit of measure doesn't exceed the limit of three characters in length.
- Ensure the character name doesn't exceed the limit of 30 characters in length.
- Ensure the character description doesn't exceed the limit of 30 characters in length.
- Ensure the character position doesn't exceed the limit of two characters in length.

### Context

#### Note

SAP Intelligent Product Recommendation reads specific attributes such as, sales order, sales order item, and product ID from sales transactional data to support smart recommendations. The extracted data is provided to SAP Intelligent Product Recommendation in a compliant way. Consent management isn't implemented for this scenario.

### Procedure

1. Launch the *My Data Management* application.
2. In the *Document Staging Area* tab, choose  *Upload*  *Configurable Product List* .

3. To upload characteristics and their values, choose **Upload > Characteristics > .**
4. In the *Upload* dialog, choose **Browse** to search for the file that you want to upload.
5. Choose *Upload*.  
The uploaded document appears in the table.
6. Choose **Import** to import the document containing the needed data.

**Task overview:** [Uploading Characteristics, Products, and Units of Measure Manually \[page 33\]](#)

**Previous task:** [Generating Template \[page 34\]](#)

# 11 Creating Characteristics, Products, and Units of Measure

Create characteristics, products, and unit of measures to enable product managers to use them when creating product categories and intelligent product selection profiles.

## Prerequisites

- You've the Maintain\_MD role assigned to you.
- You aren't connected to any SAP S/4HANA system.

## Context

To enable product managers to create product categories and intelligent product selection profiles, it is important to define clear characteristics, products, and units of measure.

- Characteristics:
  - Size: This could include dimensions such as length, width, and height.
  - Color: Specify the available color options for products.
  - Material: Describe the materials used in the product's construction.
  - Weight: Indicate the weight of the product.
  - Power requirements: Specify the voltage or power source needed for the product to operate.
  - Compatibility: Specify the compatibility of the product with other devices or systems.
- Products
  - Physical goods: Include tangible products that can be physically shipped or sold.
- Units of measure
  - Length: Use units like inches, centimeters, or meters.
  - Weight: Use units like pounds, kilograms, or grams.
  - Volume: Use units like liters, gallons, or cubic meters.
  - Time: Use units like seconds, minutes, hours, or days.
  - Currency: Use units like US dollars, Euros, or British pounds.
  - Quantity: Use units like pieces, sets, or packs.

## 11.1 Creating Units of Measure

Create units of measure (UoM) that you want to use for characteristics.

### Context

The units of measure you create here can be used to assign to characteristics in this application or in the Manage Intelligent Product Selection Profiles application.

### Procedure

1. Launch the Manage Characteristics and Products application.
2. To create a unit of measure, in the *Units of Measurements* tab, choose *Create* and perform the following substeps.
  - a. In the flexible column that opens, enter a name for the unit of measure.
  - b. Choose *Create* in the *Descriptions* section to maintain a unit of measure description in the required language.
3. Choose *Create*.

## 11.2 Creating Characteristics

Create characteristics so that the product managers can assign them to intelligent product selection profiles.

### Context

The characteristics you create here show up in the Manage Intelligent Product Selection Profiles application, where the product manager can assign them to the required needs attributes and product attributes.

### Procedure

1. Launch the Manage Characteristics and Products application.
2. To create a characteristic, in the *Characteristics* tab, choose *Create* and perform the following substeps.
  - a. In the flexible column that opens, enter a name for the characteristic.

- b. Choose *Create* in the *Descriptions* section to maintain a characteristic description in the required language.
  - c. Select a unit of measure from the *Unit of Measurement* list.
  - d. Choose *Create* in the *Values* section to create a characteristic value and its description for the selected characteristic.
  - e. Enter a name and description for the characteristic.
3. Choose *Create*.

## 11.3 Creating Products

Create products so that the product managers can use them to assign to product categories.

### Context

Create products to use them in the Manage Product Categories app. The products you create here show up in the *Configurable Product Assignment* section of the above-mentioned application.

### Procedure

1. Launch the Manage Characteristics and Products application.
2. To create a product, in the *Products* tab, choose *Create*, and perform the following substeps.
  - a. In the flexible column that opens, enter a name for the product.
  - b. Choose *Create* in the *Descriptions* section to maintain a description of the product in the required language.
3. Choose *Create*.

# 12 Manage Products Mapping

The Manage Product Mapping application allows users to manage configurable products efficiently. It provides a structured interface to view, create, and modify product mappings.

The Manage Product Mapping application enables you to efficiently manage configurable products by providing a structured interface to view, create, and modify product mappings. Upon launching the application in SAP, you are presented with a list of configurable products, which can be filtered using the Search bar and Editing Status. You can select a configurable product displays its details on the right side, along with existing mappings under the Recommended Products section.

## 12.1 Creating Configurable Product Mapping

You can use configurable product mapping for efficient product recommendation and organization. Use it to govern the process of managing and organizing a large number of products with varying attributes and options.

### Prerequisites

- You have the Maintain\_PM role assigned to you.

### Context

Creating configurable product mappings enhances product recommendation process and organization by streamlining the handling of a large number of products with varying attributes and options. This process ensures that configurable products are properly mapped to their respective components, improving efficiency and accuracy in product management. Companies offering highly configurable products often face challenges in recommending the most relevant options to their customers. Traditionally, recommendation systems rely on predefined configurable materials (KMATs), which can group multiple sellable or catalogue products under a single identifier. However, this approach limits the recommendation system's ability to provide fine-grained suggestions, as it typically suggests only the overarching configurable product rather than individual product variations

#### ❖ Example

Take an example of industrial robots where we can define a configurable material (KMAT) for a robotic arm, with characteristics such as payload capacity, reach, end-effector type, and motion control options. Instead of recommending just the base robotic arm model, an integrated model can dynamically recommend the most suitable configuration based on the industry, application requirements, and past selections.

## Procedure

1. Launch the **Manage Products Mapping** application.
2. Click *Create*.
3. Search from a list of **Configurable Products** to start adding product mapping.
4. Click *Create* under **Recommended Products** to start mapping products under the **Configurable Product**.
5. Search and add the products to be mapped.
6. Review the selected items and ensure all necessary details are correctly mapped.
7. Click *Create* to finalize and save the product mapping.

## 12.2 Viewing Product Mappings

Easily manage configurable product mappings by accessing the Manage Products Mapping section. Use filters to locate a product, then select a configurable product to view its mapped items. Click Edit to modify mappings, add new products, or remove existing ones. Once changes are made, save to ensure accurate product organization and presentation.

## Context

You can use this feature to view mappings, add new products, or remove existing ones. Once changes are made, save to ensure accurate product organization and presentation.

## Procedure

1. Launch the **Manage Products Mapping** application.
2. A list of **Configurable Products** is displayed. Filter the list of products by selecting Editing Status and click **Go**.
3. Select a **Configurable Product** to view the products mapped under it.
  - a. The product details will appear on the right side of the screen.
  - b. Under the **Recommended Products** section, existing product mappings are displayed.

# 13 Manage Currencies and Conversion Factors

The Manage Currencies and Conversion Factors application allows users to define and maintain exchange rates and conversion factors between currencies. This is essential for accurate currency conversion during financial transactions across international business operations.

This app helps you:

- Define exchange rates between currencies.
- Set up "From Currency" and corresponding "To Currency" rates.
- Maintain conversion ratios and validity periods for financial accuracy.

## 13.1 Viewing Currencies and Conversion Factors

The Manage Currencies and Conversion Factors application in SAP lets users view, filter, and maintain currency data, including searching, editing status tracking, and performing actions like create, delete, and export.

### Context

The Manage Currencies and Conversion Factors app is essential for maintaining accurate and consistent currency conversions within SAP. It ensures that business applications, including Intelligent Product Recommendation, can reliably interpret and compare product prices across different currencies.

Intelligent Product Recommendation uses real-time data to suggest relevant products to users. When these products have prices in multiple currencies (e.g., USD, EUR, JPY), the system must normalize them into a common currency to:

- Enable fair price comparisons,
- Rank products accurately based on value,
- Support seamless global recommendations.

This normalization depends entirely on the currency conversion factors maintained in this application.

To view the list of Currencies and Conversion Factors, perform the following steps:

### Procedure

1. Launch the *Manage Currencies and Conversion Factors* application. The currencies maintained will be listed under *Currencies*.

2. Search for any currency in the Search bar at the top of your screen.
3. To filter the currencies by status select the *Editing Status* as required. For more information, refer to the Table Description below.

#### Editing Status

Status	Description
All (Hiding Drafts)	Displays all saved entries while hiding unsaved drafts.
Unchanged	Shows only entries that haven't been edited.
Own Draft	Filters entries currently in draft status created by you.
Locked by Another User	Lists entries currently being edited by another user (not editable by you).
Unsaved Changes by Another User	Displays entries that have draft changes not yet saved by other users.

4. Click [Go](#) to refresh the list based on your selection.  
Additionally, you can perform the following actions directly from the toolbar:

#### Field Description

Field	Description
Create	Add a new currency entry with conversion factors by clicking the <a href="#">Create</a> button.
Delete	Select a currency and click <a href="#">Delete</a> to remove it from the system.
Copy to Clipboard	Use the copy icon to quickly copy selected rows for use in other applications.
Apply Settings	Personalize the table layout, show/hide columns, or adjust sorting and grouping preferences.
Export to Excel	Click the <a href="#">Excel icon</a> to download and export the list of currencies and conversion factors in Excel format for reporting or offline use.

## 13.2 Creating and Maintaining Conversion Factors

The Create New currency page allows you to define a new currency and its related exchange rates. You can specify the currency code and set up conversion factors with other currencies to ease conversions.

### Prerequisites

- You have the [Maintain\\_CC](#) role assigned to you.

## Context

To ensure smooth and consistent currency conversions, it is important to set accurate exchange rates. This is crucial for providing precise price estimations and comparisons for Intelligent Product Recommendations, which depend on up-to-date conversion data to compare and suggest products across various currencies. To create a new currency and add conversion factors, follow these steps.

## Procedure

1. Launch the *Manage Currencies and Conversion Factors* application.
2. Click *Create*.
3. Enter the name of the currency in the *Currency* field.
4. Click *Save* to create new Currency.
5. Once a Currency has been created, select a *Currency* from the left panel to edit.
6. Click **Create** to add a new *From Currency* conversion.

### ❖ Example

Consider an example where user wants to display the currency relevant commercial attributes such as Gross, Net Price and COGS in their desired currency, so that they can see the relevant price information in a convenient and informative way.

Scenario: To convert 500 JPY to USD:

Conversion Tables

From Currency	To Currency	Exchange Rate	Adjusted Exchange Rate (AER)	From Currency Ratio (FCR)	To Currency Ratio (TCR)
JPY	USD	0.006645	0.6645	100	1

The currency conversion is done using the formula: **Converted amount** =  $X * \{(AER * TCR) / FCR\}$

Hence, **Converted amount** =  $500 * \{(0.6645 * 1) / 100\} = 3.225$  USD

7. Use the **Valid From** field to choose the date & time from which the rate is active. This ensures the system uses the correct rate during processing.
8. Click *Save* to save the currency conversion details.

# 14 Viewing Audit Logs

View audit logs for SAP Intelligent Product Recommendation.

[Viewing Logs of Exported Data \[page 45\]](#)

You can view the logs of the data that you export in the *Audit Log Viewer* app.

[Viewing Logs of Manage Intelligent Product Selection Profiles \(IPSP\) App \[page 46\]](#)

[Viewing Logs of Manage Data Ingestion and Transformation App \[page 46\]](#)

View logs of actions that you perform in the Manage Data Ingestion and Transformation app.

[Viewing Logs of Manage Machine Learning Lifecycle App \[page 47\]](#)

[View Logs of Personal Data \[page 48\]](#)

View logs of the activities performed on personal data.

[View Logs of Data Extraction \[page 48\]](#)

## 14.1 Viewing Logs of Exported Data

You can view the logs of the data that you export in the *Audit Log Viewer* app.

### Prerequisites

You have exported SAP S/4HANA data using the My Data Management app.

### Procedure

1. Choose your subaccount in the *Subaccounts* tab.
2. Go to **Services** > *Instances and Subscriptions* > **Instances**.
3. Choose *Audit Log Viewer Service*.

The **Audit Log Viewer** application opens.

4. Enter a date range for the audit logs that you want to view, and **S/4 Data** in the *Filter* search field.

The application displays the data export logs for the tenant along with the security event message **"action: S/4 data export triggered by: , data: <username>" on <timestamp>. Security event was related to user "<username>"**.

## 14.2 Viewing Logs of Manage Intelligent Product Selection Profiles (IPSP) App

### Procedure

1. Choose your subaccount in the [Subaccounts](#) tab.
2. Go to [Services](#) [Instances and Subscriptions](#).
3. Choose [Audit Log Viewer Service](#).

The **Audit Log Viewer** application opens.

4. Enter a date range for the audit logs that you want to view, and [s/4](#) in the *Filter* search field.

For IPSP Activation: The application displays the data extraction logs along with the username and "Configuration modification message. Attribute with name "IPSP Status" was changed from "Inactive" to "Active". The attribute is a part of an object with type "IPSP" and id consisting of: IPSP "<IPSP name> activated for <product category name>". Custom details: "action" with value "Update";

For IPSP Deactivation: The application displays the data extraction logs along with the username and "Configuration modification message. Attribute with name "IPSP Status" was changed from "Active" to "Inactive".The attribute is a part of an object with type "IPSP" and id consisting of: IPSP "<IPSP name> deactivated for <product category name>". Custom details: "action" with value "Update";

## 14.3 Viewing Logs of Manage Data Ingestion and Transformation App

View logs of actions that you perform in the Manage Data Ingestion and Transformation app.

### Context

The audit logs capture these actions as security events due to the presence of document name/file name and configurable product in the documents, which are considered as personal data.

### Procedure

1. Choose your subaccount in the [Subaccounts](#) tab.

2. Go to ► [Services](#) ► [Instances and Subscriptions](#) ►.
3. Choose [Audit Log Viewer Service](#).

The **Audit Log Viewer** application opens.

4. Enter a date range for the audit logs that you want to view, and **security** in the *Filter* search field.

For Generate Document: The application displays the logs as security event message "action: Personal data (document name/file name and configurable product) downloaded with engineered dataset, data: <dataset name> and <document name> on <time stamp>. Security event was related to user <username>".

For Download to Local System: The application displays the logs as security event message "action: Personal data (documentname/file name and configurable product) downloaded as local file with engineered dataset, data: <dataset name> and <document name> on <time stamp>. Security event was related to user <username>".

For Upload: The application displays the logs as security event message "action: Personal data (document name/file name and configurable product) uploaded from local file for engineered dataset, data: <dataset name> and <document name> on <time stamp>. Security event was related to user <username>".

For Import: The application displays the logs as security event message "action: Personal data (document name/file name and configurable product) imported to engineered dataset, data: <dataset name> and <document name> on <time stamp>. Security event was related to user <username>".

## 14.4 Viewing Logs of Manage Machine Learning Lifecycle App

### Procedure

1. Choose your subaccount in the *Subaccounts* tab.
2. Go to ► [Services](#) ► [Instances and Subscriptions](#) ►.
3. Choose [Audit Log Viewer Service](#).

The **Audit Log Viewer** application opens.

4. Enter a date range for the audit logs that you want to view, and **s/4** in the *Filter* search field.

The application displays the data extraction logs along with the username and "Configuration modification message. Attribute with name "ML Profile Status" was changed from "Published" to "Unpublished". The attribute is a part of an object with type "ML Profile" and id consisting of: <ML profile name> "unpublished. Corresponding models <model names> undeployed.". Custom details: "action" with value "Update";

## 14.5 View Logs of Personal Data

View logs of the activities performed on personal data.

### Procedure

1. Choose your subaccount in the *Subaccounts* tab.
2. Go to ► *Services* ► *Instances and Subscriptions* ►.
3. Choose *Audit Log Viewer Service*.

The **Audit Log Viewer** application opens.

4. Enter a date range for the audit logs that you want to view, and **security** in the *Filter* search field.

For Export Document Download: The application displays the logs as security event message "Export document downloaded on <time stamp>. Security event was related to user <username>".

For Deletion of Personal Data: The application displays the logs as security event message .

## 14.6 View Logs of Data Extraction

### Procedure

1. Choose your subaccount in the *Subaccounts* tab.
2. Go to ► *Services* ► *Instances and Subscriptions* ►.
3. Choose *Audit Log Viewer Service*.

The **Audit Log Viewer** application opens.

4. Enter a date range for the audit logs that you want to view, and **s/4** in the *Filter* search field.

The application displays the data extraction logs along with the username and **Security event message** "action: S/4 data export triggered by: , data: <Username>" on <DateTime>. Security event was related to user "<Username>" message.

# 15 Maintaining Settings

You can maintain SAP IPR specific settings that are applicable to all the applications.

## Prerequisites

You've ensured that you've the **Maintain\_ST** role assigned to you.

## Procedure

1. Launch the Maintain Settings application.
2. Go to *Intelligent Product Recommendations*, and choose *Edit* to change the AI dialog setting.
  - On: Displays the AI Acknowledgment dialog to inform users about the implications of using AI capabilities within the Intelligent Product Recommendations app.
  - Off: Hides the AI Acknowledgment dialog.
3. Choose *Save*.

## Related Information

[Role Collections in SAP Intelligent Product Recommendation](#)

# 16 Security Recommendations for SAP Intelligent Product Recommendation

SAP Intelligent Product Recommendation follows the SAP BTP security recommendations.

Security Recommendations

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
SAP Destination service	Critical	Authentication & Single Sign-On	Encryption, Data in Transit	HTTP Destinations (proxy type Internet): Valid for all destinations with the proxy type Internet: TLS 1.2 is the default TLS version of HTTP destinations. If an HTTP destination is consumed by a Java application the change is effective after restart. All HTTP destinations that use the HTTPS protocol and have ProxyType=Internet can be affected. The standard setting is TLS 1.2.	Don't use older TLS versions and regularly check if all destinations are configured to use the recommended TLS version in the documentation.	<a href="#">Server Certificate Authentication</a>	2024-05-31	BTP-DE-S-001
SAP Destination service	Recommended	Authentication & Single Sign-On	Strong Authentication	HTTP Destinations: The service offers a number of authentication types for HTTP destinations, which you can configure based on your technical or security requirements.	Use the following authentication types: <ul style="list-style-type: none"> <li>For on-premise connections, use Principal Propagation SSO Authentication for interactive HTTP sessions.</li> <li>For Internet connections, use OAuth SAML Bearer Assertion Authentication or SAML Assertion Authentication.</li> <li>If you must use password-based authentication, use strong ones. This recommendation applies to <b>BasicAuthentication</b> and <b>OAuth2Password</b> types.</li> </ul> Don't use SAP Assertion SSO. This type has been deprecated.	<a href="#">HTTP Destinations</a>	2024-05-31	BTP-DE-S-003

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
SAP Destination service	Recommended	Authentication & Single Sign-On	Strong Authentication	HTTP Destinations: Mutual TLS with X.509 client certificates is performed only if the <code>tokenService.KeyStore relocation</code> property is set in the destination configuration. Otherwise, the client secret is used.	Mutual TLS is recommended for all productive environments. To perform mutual TLS, use an X.509 client certificate instead of a client secret when connecting to the authorization server. Create a certificate configuration with a valid X.509 client certificate or a key store, and link it to the destination configuration.	<a href="#">OAuth with X.509 Client Certificates</a>	2024-05-31	BTP-DE S-007
Cloud Connector	Critical	Authentication & Single Sign-On	Encryption, Data in Transit	You can use Cloud Connector to expose internal systems to the Internet with HTTP or HTTPS. There are no default entries.	Ensure that for all productive environments HTTPS is enforced. Check this enforcement regularly. Manage any exceptions as part of your risk management processes. Ensure that your target systems support HTTPS.	<a href="#">Configure Access Control (HTTP)</a>	2024-05-31	BTP-SC C-008
Cloud Connector	Critical	Authentication & Single Sign-On	Access Control	Cloud Connector enables you to maintain strict lists of allowed URLs for access control. Only those URLs for which you explicitly grant access are allowed. Cloud Connector denies all other HTTP(S) requests. There are no default entries.	For productive landscapes, be cautious about the use of the all sub-paths option. Make your URLs as specific as possible. Using sub-paths increases the risk of connecting to malicious or unintended resources. Regularly check if someone has exposed root URLs.	<a href="#">Configure Access Control (HTTP)</a>	2024-05-31	BTP-SC C-009
SAP Audit Log service	Recommended	Audit and Fraud Management	Audit	Cloud Foundry Environment: The SAP Audit Log service is a platform service, which stores all the audit logs written on your behalf by other platform services that you use. It allows you to retrieve the audit logs for your sub-account via the audit log retrieval API or view them using the SAP Audit Log Viewer. The retention period is 90 days. There's currently no possibility to extend the retention time.	The audit log retrieval API allows you to retrieve the audit logs. Download audit logs regularly and save them ideally in an existing and central audit log system of your choice.	<a href="#">Audit Log Retrieval API Usage for Subaccounts in the Cloud Foundry Environment</a>	2024-05-31	BTP-AU D-001

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
Identity Authentication	Critical	Authentication & Single Sign-On	Default Authentication of Administrators	The default authentication method for the administration console is user name and password.	Always protect the administration console application with multifactor authentication.	<a href="#">Configure Risk-Based Authentication for an Application</a>	2024-05-31	BTP-IAS-0001
Identity Authentication	Recommended	Authentication & Single Sign-On	Password Policies	The service supports multiple levels of password security. The default setting is Standard. The main difference between Standard and Enterprise is the enforcement of password change.  If these policies don't meet your corporate requirements, create custom policies.	If password-based authentication is mandatory for you, we recommend Enterprise over Standard, because it's the only option to fix leaked accounts.  Better is the deactivation of passwords for employees if applicable. Refer to <a href="#">BTP-IAS-0006</a> .	<a href="#">Configure Custom Password Policy</a>	2024-05-31	BTP-IAS-0002
Identity Authentication	Critical	User & Identity Management	Self-Registration of Users	For business-to-consumer (public) scenarios, self-registration may be required. By default, self-registration is disabled (value = internal) and can be configured per application.  Corporate identity lifecycle processes make self-registration undesirable in most business-to-employee (B2E) and business-to-business (B2B) scenarios.  For more information, refer to <a href="#">Scenarios</a> .	Keep self-registration disabled (value = internal). Actively manage use cases that require the function.	<a href="#">Configure User Access to the Application</a>	2024-05-31	BTP-IAS-0003

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
Identity Authentication	Critical	User & Identity Management	Social Sign-On of End Users	For business-to-consumer (public) scenarios, self-registration may be required. By default, self-registration is disabled (value = internal) and can be configured per application.  Corporate identity lifecycle processes make self-registration undesirable in most business-to-employee (B2E) and business-to-business (B2B) scenarios.  For more information, refer to <a href="#">Scenarios</a> .	Keep social sign-on disabled (value = internal). Actively manage use cases that require the function.	<a href="#">Enable or Disable Social Sign-On for an Application</a>	2024-05-31	BTP- -IAS- 0005
Identity Authentication	Advanced	Authentication & Single Sign-On	Default Authentication of End Users	The default authentication method for end users to authenticate with the service is user name and password.	Use authentication methods that don't include passwords. Disable password authentication for end users.	<a href="#">Configure Kerberos Authentication</a> <a href="#">Enable Users to Generate and Authenticate with Certificates</a> <a href="#">Enable or Disable FIDO2 Biometric Authentication for an Application</a>	2024-05-31	BTP- -IAS- 0006
Identity Authentication	Advanced	Security Monitoring & Forensics	Audit Data	The service uses the SAP Audit Log service on the Cloud Foundry environment for audit logging. The retention time is 90 days.	To keep audit log entries longer, download and archive the log entries regularly.  Also, refer to <a href="#">BTP-AUD-0001</a>	<a href="#">Access Audit Logs (AWS, Azure Infrastructure)</a>	2024-05-31	BTP- -IAS- 0011

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
Identity Authentication	Recommended	User & Identity Management	Integration of 3rd-Party Identity Providers	By default, Identity Authentication acts as the default identity provider with its own identity store. The service can also be configured to delegate authentication to a 3rd-party provider (proxy mode).	If the service is configured to delegate authentication to a 3rd-party identity provider, the trust between the service and the other identity provider is critical. Manage any changes of the trust settings.	<a href="#">Corporate Identity Providers</a>	2024-05-31	BTP-IAS-0014
Identity Authentication	Advanced	User & Identity Management	Identity Lifecycle	Most companies have an existing identity lifecycle management process. These systems act as the leading identity management system. In many cases, these systems don't provide best practices on how to manage SAP cloud services.	Use Identity Provisioning with the user store of Identity Authentication (Identity Directory) to synchronize users with your leading identity management solution. The Identity Directory functions as a central place to manage identities for SAP cloud services.	<a href="#">SAP Cloud Identity Services - Identity Provisioning</a>	2024-05-31	BTP-IAS-0015
Identity Authentication	Recommended	User & Identity Management	Critical Administrator Authorization	Identity Authentication plays a critical role in the access to SAP cloud applications. Because the central role of the service, it's required to reduce the number of administrators with full access. Identity Authentication permissions are based on the internal user store and its permission concept.	The assignment of the following authorizations is critical. Manage them ideally as part of your identity lifecycle process. <ul style="list-style-type: none"> <li>Manage Corporate Identity Providers</li> <li>Manage Tenant Configuration</li> <li>Manage Users</li> </ul>	<a href="#">List Administrators</a>	2024-05-31	BTP-IAS-0017
Identity Authentication	Advanced	Regulatory Process Compliance	Disclaimer	By default there's no standard legal disclaimer, privacy statement, or copyright information. This information is only required for business-to-business (private) or business-to-consumer (public) scenarios.  For business-to-employees (internal) scenarios, we assume that this requirement is covered by the employee contract.	Maintain a legal disclaimer, privacy statement, and copyright information especially if external users consume the service. Consult your legal department.	<a href="#">Configure Links Section on Sign-In Screen</a>	2024-05-31	BTP-IAS-0018

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
Identity Authentication	Advanced	Awareness	Corporate Domain	<p>The default URL of Identity Authentication isn't a domain of your organization, but a URL owned by SAP with a technical prefix.</p> <p>Employees are used to corporate domains and it helps to protect against phishing attacks.</p>	Use the corporate domains of your organization for business critical SAP services with the Customer Domain service.	<a href="#">Use Custom Domain in Identity Authentication</a>	2024-05-31	BTP-IAS-19
Identity Authentication	Advanced	Awareness	Corporate Mail Server	<p>Identity Authentication uses its own mail server for e-mails sent to users for different application processes. For example, when a user registers for an application, the user receives an activation e-mail from ias@notifications.sap.com.</p> <p>Use the mail server of your organization. It helps your employees to determine if an e-mail is trustworthy.</p>	Maintain your corporate mail server for any outgoing mails in Identity Authentication.	<a href="#">Configure Mail Server for Application Processes</a>	2024-05-31	BTP-IAS-20
Identity Authentication	Advanced	Awareness	Corporate Brand	<p>The logon page of the service doesn't include any organization-specific branding. Branding makes it easier for users to recognize the logon screen as part of your organization. Branding is a small step to protect against phishing attacks. Some of these attacks fail because they send out links without correct branding.</p>	Add the branding of your organization to the logon screen.	<a href="#">Configure a Branding Style for an Application</a>	2024-05-31	BTP-IAS-21
Identity Authentication	Recommended	Security Monitoring & Forensics	Administrator Alerts	Administrative changes and settings are important to run the service securely. By default, administrators don't receive mails about critical changes.	Configure the administration console to send e-mails about expiring certificates, system notifications, and new administrators to specific e-mail addresses or to the e-mail addresses of all administrators.	<a href="#">Send System Notifications via Emails</a>	2024-05-31	BTP-IAS-22

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
Identity Authentication	Recommended	Security Monitoring & Forensics	End-User Alerts	User-related security alert e-mails are disabled by default.	<p>Enable e-mails for security alerts for end users. Configure at least the following:</p> <ul style="list-style-type: none"> <li>E-mail change</li> <li>Login Name change</li> <li>Credential change</li> <li>TFA device activation or deactivation</li> </ul>	<a href="#">Send Security Alert Emails</a>	2024-05-31	BTP-IAS-0023
Identity Authentication	Advanced	User & Identity Management	Self-Registration of Users	<p>In business-to-business (private) or business-to-consumer (public) scenarios, there's no restriction on the values which users can provide, such as e-mail address.</p> <p>For more information, refer to <a href="#">Scenarios</a>.</p>	<p>Only if self-registrations are enabled: Maintain any unwanted domains in e-mail addresses or user names.</p> <p>For example, don't allow the creation of the user Administrator@*.* to prevent a malicious user from subverting a specific role. Another example would be to block e-mail providers, which enable the creation of mail addresses with scripts.</p>	<a href="#">Restrict User Attributes via Exclude Lists</a>	2024-05-31	BTP-IAS-0024
Identity Authentication	Advanced	Security Hardening	Self-Registration and CAPTCHA	<p>In business-to-business (private) or business-to-consumer (public) scenarios, you may allow password logon in combination with self-registration. These pages are vulnerable to automated attacks. For example, a malicious user tries to influence the rating system in your community, by creating fake users, who rate the services in that community.</p> <p>For more information, refer to <a href="#">Scenarios</a>.</p>	<p>Only if self-registration is enabled: Enable CAPTCHA for the logon or registration pages to distinguish humans from computers.</p>	<ul style="list-style-type: none"> <li><a href="#">Protecting Application Forms with Google reCAPTCHA</a></li> <li><a href="#">Enable MTCaptcha for Application Forms</a></li> </ul>	2024-05-31	BTP-IAS-0025

Component	Priority	Secure Operations Map	Title	Default Setting or Behavior	Recommendation	More Information	Last Update	Index
Identity Authentication	Advanced	Authentication & Single Sign-On	Authentication Policies	There are no group-dependent authentication policies for the entire tenant to limit the access based on user attributes (IP range or groups).	<p>Define group-based authentication policies according to the risks that the different user groups pose.</p> <p>This configuration isn't applicable to all environments. Administrators should be aware of this option and decide whether to use it based on internal requirements.</p> <p>Examples of rule criteria include: IP range, authentication method, user type, group type, or corporate attribute.</p>	<a href="#">Configure Default Risk-Based Authentication for All Applications in the Tenant</a>	2024-05-31	BTP-00-00-26

# 17 Data Protection and Privacy in SAP Intelligent Product Recommendation

Sales orders, sales order items, and products are considered personal data in SAP Intelligent Product Recommendation. Documents can contain personal data. As such, they're governed by the Data Protection and Privacy laws.

In certain scenarios, such as product configurations, the data used in SAP Intelligent Product Recommendation could lead to the identification of a person. In such cases, the customer is responsible for manually deleting those data.

## Consent Management

SAP Intelligent Product Recommendation doesn't have the capability of capturing user consent. SAP Intelligent Product Recommendation customers are responsible for user consent management of their customers, and must be compliant with data protection and privacy (often abbreviated to DPP) regulations and laws, such as the EU's General Data Protection Regulation (GDPR) or the California Consumer Privacy Act (CCPA).

## 17.1 Personal Data in SAP Intelligent Product Recommendation

Sales orders, sales order items, and products are considered personal data in SAP Intelligent Product Recommendation. As such, they are governed by the Data Protection and Privacy laws.

SAP Intelligent Product Recommendation does not require the user to enter personal data unless there is a specific purpose to collect such data. However, the tender documents may include personal data. To protect sensitive information from unauthorized access, it is recommended to use anonymization in the tender document. By anonymizing personally identifiable information in the tender document, you add an additional layer of protection to your confidential data, reducing the risk of privacy breaches.

For more information, see [Data Privacy Integration NextGen- Data Anonymization](#).

The **AI-assisted Bidding** application allows you to delete your original tender documents after analysis.

SAP Intelligent Product Recommendation uses SAP Data Privacy Integration (refer to [Data Privacy Integration NextGen](#) for more information), a subscription-based service that can be consumed by applications to use some of the key data privacy features. Using this service, you can:

- Search for a specific data subject record and see where it's used. In SAP Intelligent Product Recommendation, the data subjects are **Sales Order**, **Sales Order Item**, **Product**, **Document** and **Tender Document**. You can enter the sales order ID in the *Data Subject Search* field of the Manage Personal Data app. In the *Search Results*, choose the application name to view the details. Select the *Application Name* row to view sales order's where-used list. You can see details such as, *Dataset*, *Dataset Type*, *Product*

[Category](#), [Sales Order](#), and [Sales Order Item](#) in the [Sales Order View](#). You can export this list to your local system. The Audit Log Viewer application logs this activity as a security event. For more information, refer to [Manage Personal Data-Data Privacy Integration NexGen](#).

- Configure retention of personal data. Refer to [Retention Configuration - Data Privacy Integration NexGen](#) for more information. The IPR-specific values to specify are given below.

<i>App: Configure Data Controller</i> - Field Name	Value
Application Name	Intelligent Product Recommendation
Organization Attribute Name	Product/Document/Sales Order
Organization Attribute Value	Product Category

<i>App: Configure Business Purpose</i> - Field Name	Value
Business Purpose Usage	Data Subject Deletion

- Delete personal data from the system. This is a manual process.

#### → Remember

- Until you request for deletion, your personal data remains in the system and isn't deleted even if it's past its retention period. Once the deletion request is sent, the personal data is then hidden from view. The Audit Log Viewer application logs this activity as a security event.
- Once personal data is deleted, use the updated datasets for ML trainings, and retrain your ML models.


For more information, refer to [Scheduling Deletion of Data Subjects](#) and [Deleting Data Subject Information](#).

# 18 Integration and Exception Monitoring for SAP Intelligent Product Recommendation

Check all Data Attribute Recommendation (DAR)-related activity logs of Manage Machine Learning Lifecycle application using SAP Cloud ALM monitoring service.

## 18.1 Viewing Data Attribute Recommendation (DAR)-related Messages and Logs

### Procedure

1. Launch the *Integration and Exception Monitoring* app.
2. Choose  (*Select a Scope*) to open the scope selector.
3. In the the *Select a Scope* dialog, select *Services* from the dropdown list on the *Managed Components* filter, and choose *Go*.
4. In the *Managed Components* table, select the SAP Intelligent Product Recommendation services, and choose *Apply*.

#### Note

These services are your SAP Intelligent Product Recommendation tenants that you configure in SAP BTP cockpit.

5. Define a time frame for which you want to view the DAR logs.
6. Choose *Messages* to view the list of messages with **OUTBOUND** direction.
7. Choose *> navigation right arrow* to view the logs.

### Related Information


[Integration & Exception Monitoring Monitoring](#)

# 19 Real User Monitoring in SAP Intelligent Product Recommendation

Check all performance-related activity logs of SAP Intelligent Product Recommendation in the *Real User Monitoring* app of SAP Cloud ALM.


## 19.1 Viewing Performance Logs of SAP Intelligent Product Recommendation

### Procedure

1. Launch the *Real User Monitoring* app.
2. Choose  (*Select a Scope*) to open the scope selector.
3. In the the *Select a Scope* dialog, select *Services* from the dropdown list on the *Managed Components* filter, and choose *Go*.
4. In the *Managed Components* table, select the SAP Intelligent Product Recommendation services, and choose *Apply*.

#### Note

These services are your SAP Intelligent Product Recommendation tenants that you configure in SAP BTP cockpit.

5. Define a time frame for which you want to view the performance logs.
6. Choose *SAPUI5* (SAP Fiori calls), or *HTTPS* (service calls) to view all the actions that are taken in the SAP Intelligent Product Recommendation apps.
7. Choose  *navigation right arrow* to view the details of each entry.

### Related Information



[Real User Monitoring Monitoring](#)

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