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# **SAP BTP Configuration Guide**

## **SAP Subscription Billing**

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# 1 Introduction

This document guides you through the SAP Subscription Billing onboarding process step-by-step.

Once you've received an email from SAP welcoming you to SAP Subscription Billing, you can start with the first steps.

The technical setup includes the creation of a tenant. Only users with an Administrator role for the global account can create tenants. At first, only the recipients of the welcome email have this role. If someone else needs to create a tenant, one of the email recipients must add the relevant user as Administrator for the [global account](#). This is described in the section [Add Administrators to Global Account \[page 14\]](#).

See also the SAP Business Technology Platform (SAP BTP) documentation for an overview of all administration roles: [Role Collections and Roles in Global Accounts, Directories, and Subaccounts \[Feature Set B\]](#).

## Cloud Availability

We recommend that you go to [SAP for Me](#) and add the e-mail addresses of employees of your company whom we can contact with Cloud Availability notifications relating to SAP Subscription Billing. You do this under *Systems & Provisioning*.

### → Tip

Ideally, enter the e-mail addresses of your fellow employees who can work with us in critical situations without delay. For more information, see [Get Notified](#).

## SAP BTP Environment

SAP Subscription Billing runs on the **Cloud Foundry** environment. For more information, see [Cloud Foundry Environment](#) in the SAP BTP documentation.

## Booster

Decide whether you want to use an automation wizard called “booster” for the onboarding of an SAP Subscription Billing tenant, or if you want to follow a manual step-by-step guide. **If your Global Account is running on feature set A, please use the booster functionality instead of the manual steps.**

### ⓘ Note

The booster has some settings that need to be configured carefully, for example regarding subaccounts. Please read the information on the booster carefully.

For the next steps, see:

- [Set Up Using Booster Automation \[page 7\]](#)
- [Set Up Using Manual Steps \[page 13\]](#)

## 2 Revision History

Overview of changes to the guide in the last 12 months.

Date of Update	Change
2023-12-18	Section <a href="#">Set Up SAP Event Broker for SAP Cloud Applications [page 58]</a> added. Either SAP Event Broker or SAP Event Mesh can now be used to distribute events in standard integrations between SAP Subscription Billing and SAP S/4HANA Cloud Public Edition.
2023-11-13	Section <a href="#">Enable API Access [page 40]</a> enhanced with the option of creating a service key with a client certificate.
2023-09-05	Cloud Availability notification information added in section <a href="#">Revision History [page 6]</a> .
2023-04-21	Logon URL for the SAP BTP cockpit adapted in the onboarding sections.
2023-03-31	New region eu11 with EU only access added.
2023-01-30	Link about the integration of SAP Subscription Billing apps with the SAP Fiori launchpad of SAP S/4HANA Cloud added to the section <a href="#">Onboard SAP Subscription Billing [page 8]</a> .

### Note

Note that screenshots used in this document were taken using one of the standard SAP visual themes. They may not look the same for you depending on your user settings.

## 3 Set Up Using Booster Automation

A booster is a set of guided interactive steps that enable you to select, configure, and consume services on SAP BTP to achieve a specific technical goal. Boosters automate processes that otherwise require a high number of manual steps, such as onboarding applications like SAP Subscription Billing. The booster helps you onboard an SAP Subscription Billing tenant in a new or existing subaccount, including services such as Event Mesh and Price Calculation depending on the selected configuration. If you use a booster for the onboarding of SAP Subscription Billing, most of the steps mentioned under [Set Up Using Manual Steps \[page 13\]](#) are performed automatically.

The [Onboard SAP Subscription Billing \[page 8\]](#) booster is available for SAP Subscription Billing standalone and SAP S/4HANA Cloud integration scenarios.

### → Recommendation

We recommend using the booster for **non-productive tenants**.

If you choose to use the booster for a **productive tenant**, please note the following:

- All users added with Administrator or Developer roles get full authorization for administrative and development tasks as well as full access to the SAP Subscription Billing user interface. If this contradicts your compliance rules for productive tenants, add users manually or remove authorizations prior to productive use of the tenant.
- The boosters don't support custom identity providers (IdP). The default IdP SAP ID Service is not recommended for productive use of SAP Subscription Billing. You can manually adapt the IdP settings.
- The boosters create an API client for accessing SAP Subscription Billing APIs with all API scopes. You can manually configure API access with only selected scopes depending on your business needs.

During the booster configuration, you must decide whether you want to create a **new subaccount** or select an **existing subaccount** to which you want to add SAP Subscription Billing.

### ⚠ Caution

If you make the wrong selection for your use case, you may run into issues further in the onboarding process. For more details on which configuration to select, see the section 6 under [Onboard SAP Subscription Billing \[page 8\]](#).

After the configuration is completed and the booster is started, the booster assigns entitlements, subscribes chosen applications, and creates the relevant service instances and the associated service keys automatically.

When the booster has finished all the processing steps, you can access the user interfaces of SAP Subscription Billing and applications such as Event Mesh and Price Calculation, depending on your chosen configuration. In addition, you can use the created service key to get OAuth access tokens for the created service instances.

### 📌 Note

You can run a booster as many times as you like, for example to add more users or to take advantage of changes that were made to the booster itself. The booster is a convenient way to make changes to your subaccount settings and benefit from some in-built checks and validations.

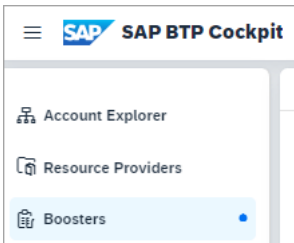
To run the booster on an existing subaccount, make sure you are the Subaccount Administrator and Space Member.

## 3.1 Onboard SAP Subscription Billing

To start the onboarding of SAP Subscription Billing, follow these step-by-step instructions.

### → Tip

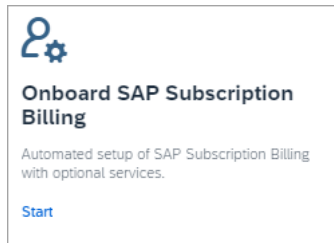
Throughout the booster configuration, select *Next* to get to the next selection screens or *Previous* to adjust settings you made in the previous screens.

Step	Task
1.	<p>Logon to the SAP BTP Cockpit using either of these URLs depending on your region:</p> <ul style="list-style-type: none"><li>• EMEA: <a href="https://emea.cockpit.btp.cloud.sap">https://emea.cockpit.btp.cloud.sap</a></li><li>• Americas: <a href="https://amer.cockpit.btp.cloud.sap">https://amer.cockpit.btp.cloud.sap</a></li><li>• Asia-Pacific, Oceania: <a href="https://apac.cockpit.btp.cloud.sap">https://apac.cockpit.btp.cloud.sap</a></li><li>• EU Access: <a href="https://eu-access.cockpit.btp.cloud.sap">https://eu-access.cockpit.btp.cloud.sap</a></li><li>• A logon URL in the region closest to you (to avoid latency). See <a href="#">Regions and API Endpoints Available for the Cloud Foundry Environment</a> in the SAP BTP documentation.</li></ul>
2.	<p>Open the global account that was used to order SAP Subscription Billing.</p> <p>→ Tip</p> <p>To find the right global account, you can use the <i>System &amp; Provisioning</i> dashboard in <a href="#">SAP for Me</a> (log on with your S-user ID). In the dashboard, you can find the global account ID under <i>System Name &amp; Number</i>.</p> <p>In this guide, we use “<i>SubscriptionBilling Consulting</i>” as the example account.</p>
3.	<p>Choose <i>Boosters</i> in the navigation panel.</p>  <p>ⓘ Note</p> <p>If you don't see this entry in the navigation panel, you need to have the Global Account Administrator role assigned to your user.</p>



Step	Task
------	------

4. Select the tile *Onboard SAP Subscription Billing* from the *Boosters* overview page and click *Start*.



The overview page displays:

- Information about the booster
- Components that are available for the booster
- Available additional resources

5. Click *Start* to begin the booster process.

The booster checks the necessary prerequisites including required authorizations and entitlements.

6. Decide whether you want to create a new subaccount for SAP Subscription Billing or add it to an existing subaccount.

Once you have decided, choose either *Create Subaccount* or *Select Subaccount* and click *Next*. See below steps 6a and 6b.

#### Caution

This decision has implications for the onboarding of further applications such as *Event Mesh* (optional). Some applications **MUST** be subscribed in the same subaccount as SAP Subscription Billing.

6a Create Subaccount

To create a new subaccount, enter the required information and click [Next](#) add users. The booster prefills the fields with suggestions you can partially change:

- **Entitlements:** Depending on your use case, you can delete optional entitlements of applications that you don't want to subscribe.
- **Subaccount Name:** You can change the generated name to something more relevant to your use case.
- **Region:** Change the region if the prefilled region is not fitting.
- **Subdomain:** This will be the name of your SAP Subscription Billing tenant.

You can deselect optional applications in this step under [Action](#).

**Onboard SAP Subscription Billing**

1 Check Prerequisites — 2 Select Scenario — **3 Configure Subaccount** — 4 Add Users — 5 Review

---

**Configure Subaccount**  
Configure your Cloud Foundry Subaccount and Space. ⓘ

Entitlements: [Reset](#)

Service	Plan	Required Quota	Remaining Quota	Action
Price Calculation *	default	1	limited	
SAP Subscription Billing *	default	1	limited	
Event Mesh	default	1	limited	
Event Mesh Subscription	standard	1	limited	
PersonalDataManagerApp	standard	1	limited	
SAP Subscription Billing API	default	- 1 +	72	
retention-manager-app	standard	1	limited	

The service plans that are required for running this project and their required quota. The required quota is deducted from the available quota for each service in your global account.

Subaccount Name: \*   
The name for your new subaccount can contain up to 255 characters.

Provider: \*   
Select the infrastructure provider of the new subaccount.

Region: \*   
Select the region in which to create the new subaccount.

Subdomain: \*   
The subdomain of your subaccount must be unique and can contain up to 63 letters (a-z or A-Z), digits (0-9), and hyphens (not at the start or end).

Org Name: \*   
The name for the Cloud Foundry org can contain up to 255 characters.

Space Name: \*   
The name for the Cloud Foundry space can contain up to 255 characters.

[Previous](#) [Next](#) [Cancel](#)

**Step**      **Task**

**6b**      **Select Subaccount**

To select an existing subaccount for this booster, choose the relevant subaccount from the list under *Subaccount*.

**Entitlements:** Depending on your use case, you can delete optional entitlements of applications that you don't want to subscribe.

You can deselect optional applications in this step under *Action*.

7. Add additional users as Administrators or Developers. The booster will assign the relevant roles automatically. The user who is configuring the booster is added as administrator and developer automatically.

The screenshot shows the 'Onboard SAP Subscription Billing' configuration wizard. At the top, there is a progress bar with five steps: 1. Select Scenario, 2. Configure Subaccount, 3. Add Users (highlighted in blue), and 5. Review. Below the progress bar, the main heading is 'Add Users'. Underneath, it says 'Enter the details of additional users who will work on your development project and assign them to the relevant roles.' There is an information icon to the right. A blue tip box contains the following text: 'The Platform Identity Provider displays all the Custom Identity Authentication Service (IAS) tenants configured in your global account. The booster will use it to assign cockpit platform roles like "Subaccount Administrator". Similarly, the Application Identity Provider displays all the Custom IAS tenants associated with the selected subaccount. This IAS tenant will be used by application users having application roles like "BuildAppsDeveloper".' Below the tip, there are three input fields: 'Custom Identity Provider for Platform Users' with the value 'accounts.sap.com', 'Custom Identity Provider for Applications' with a dropdown menu showing 'accounts.sap.com', and 'Administrators' with a yellow input box containing the placeholder text 'Enter e-mails, separated by commas, spaces, semicolons, or line breaks.' Below the 'Administrators' field, there is a note: 'Administrators will be assigned to the org manager and space manager roles and role collection(s) All SAP Subscription Billing UI Roles, Enterprise Messaging Administrator, Subaccount Administrator.' There is also a 'Developers' field with a yellow input box containing the same placeholder text. Below the 'Developers' field, there is a note: 'Developers will be assigned to the space developer role and role collection(s) Subaccount Viewer.' At the bottom right of the form, there are three buttons: 'Previous', 'Next', and 'Cancel'.

→ **Tip**

You can add additional users later by running the booster again.

8. Review the configuration settings you made, especially regarding the subaccount mode. When you are happy with your choices, click *Finish*.

The booster will make the settings according to your configuration.

Step	Task
9.	<p>When the booster configuration is complete, some settings still have to be made manually, depending on your configuration needs:</p> <ul style="list-style-type: none"><li>• As the booster can only create user interface access for Administrators and Developers, business users have to be added manually. See <a href="#">Enable Authentication and Single Sign-On for Business Users [page 25]</a>.</li><li>• <a href="#">Define Security Administrators in Your Subaccount [page 23]</a></li><li>• <a href="#">Assign Your Own Identity Provider (IdP) to Your Subaccount [page 27]</a></li><li>• <a href="#">Build Role Collections [page 34]</a></li><li>• <a href="#">Define Roles to Restrict Authorization by Market (Optional) [page 37]</a></li><li>• <a href="#">Assign Role Collections to Users or User Groups [page 39]</a></li><li>• To enable the integration of SAP Subscription Billing apps with the SAP Fiori launchpad of SAP S/4HANA Cloud, follow the procedure described under <a href="#">Integration with the SAP Fiori Launchpad of SAP S/4HANA Cloud</a> in the <i>Setup and Administration Guide</i>.</li></ul>

**Note**

API scopes for recently deployed features may not be up to date when you run the booster for the initial onboarding. Missing API scopes need to be added manually. For more information, see [Create a Service Instance \[page 45\]](#).

# 4 Set Up Using Manual Steps

## 4.1 Technical Setup

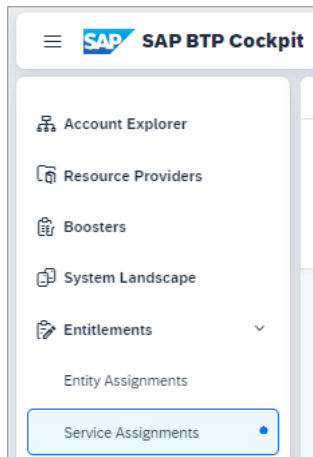
### 4.1.1 Check Successful Completion of Provisioning

Log on to the SAP BTP cockpit to check that SAP Subscription Billing is available for your account.

Step	Task
1.	<p>Log on to the SAP BTP Cockpit using either of these URLs depending on your region:</p> <ul style="list-style-type: none"><li>• EMEA: <a href="https://emea.cockpit.btp.cloud.sap">https://emea.cockpit.btp.cloud.sap</a></li><li>• Americas: <a href="https://amer.cockpit.btp.cloud.sap">https://amer.cockpit.btp.cloud.sap</a></li><li>• Asia-Pacific, Oceania: <a href="https://apac.cockpit.btp.cloud.sap">https://apac.cockpit.btp.cloud.sap</a></li><li>• EU Access: <a href="https://eu-access.cockpit.btp.cloud.sap">https://eu-access.cockpit.btp.cloud.sap</a></li><li>• A logon URL in the region closest to you (to avoid latency). See <a href="#">Regions and API Endpoints Available for the Cloud Foundry Environment</a> in the SAP BTP documentation.</li></ul>
2.	<p>Open the global account that was used to order SAP Subscription Billing.</p> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 10px;"><p>→ Tip</p><p>To find the right global account, you can use the <i>System &amp; Provisioning</i> dashboard in <a href="#">SAP for Me</a> (log on with your S-user ID). In the dashboard, you can find the global account ID under <i>System Name &amp; Number</i>.</p></div> <p>In this guide, we use "SubscriptionBilling Consulting" as the example account.</p>

**Step**      **Task**

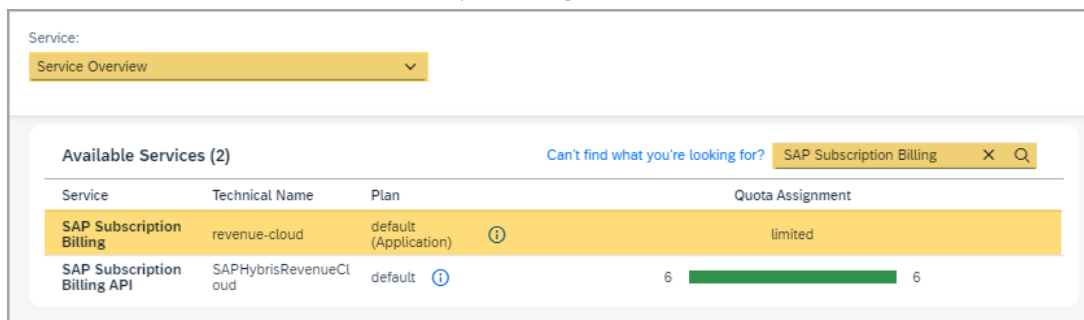
3. Choose ► *Entitlements* ► *Service Assignments* ► in the navigation panel.



**Note**

If you don't see this entry in the navigation panel, you need to have the Global Account Administrator role assigned to your user.

4. In the service overview, search for SAP Subscription Billing.



**Note**

If the service isn't displayed, please report this to your local SAP contact.

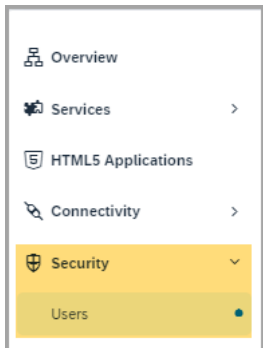
## 4.1.2 Add Administrators to Global Account

To enable further users to create a tenant, one of the recipients of the welcome email must add the relevant user as a global account administrator. You add administrators by assigning them a predefined role collection.

For more information on the default role collections for administrators, see [Role Collections and Roles in Global Accounts, Directories and Subaccounts \[Feature Set B\]](#) in the SAP BTP documentation.

**Step Task**

1. In your global account, choose **Security > Users** in the navigation panel.



2. Select **Create** to add the user who you want to make administrator.

3.
  1. Enter the user name and email address of the user.
  2. The identity provider must be "Default identity provider".
  3. Select **Create**.

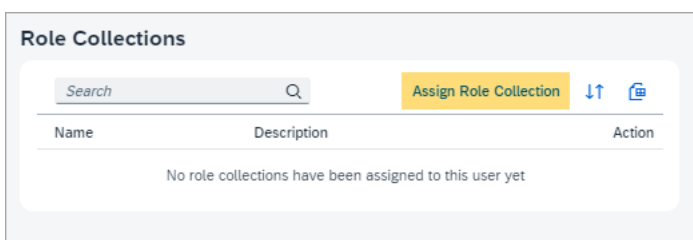
The 'Create User' form contains the following fields:
 

- User Name: \* (text input)
- Identity Provider: \* (dropdown menu with 'Default identity provider' selected)
- E-Mail: \* (text input)

 At the bottom right, there are 'Create' and 'Cancel' buttons.

4. Optional: If the user isn't part of the identity provider, you're asked to add the user. Complete this action.

5. In the overview of users, open the new user. Then, under **Role Collections**, select **Assign Role Collection**.



6. Assign the role collection "Global Account Administrator".

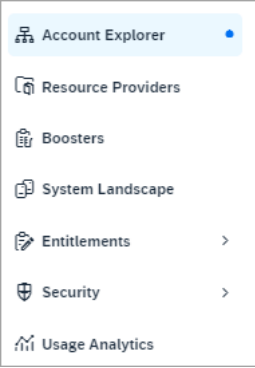
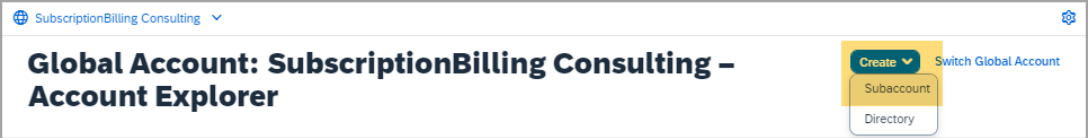
Name	Description
Global Account Administrator	Administrative access to the global account

7. The user has now administrative access to the global account.

## 4.1.3 Create Subaccounts

Subaccounts on SAP BTP are required for deploying applications and using services. When you create a subaccount and subscribe to SAP Subscription Billing, a tenant is created.

You need one subaccount for each tenant to which you are entitled. Repeat the steps below to create each subaccount.

Step	Task
1.	In the navigation panel of your global account, choose <i>Account Explorer</i> . 
2.	Select <b>Create</b> > <i>Subaccount</i> . 



Step	Task
------	------

- |    |  |
|----|--|
| 3. | Define the subaccount: <ol style="list-style-type: none"><li>Specify a display name and short description.</li><li>In the Region list, scroll to the provider "Amazon Web Services (AWS)" and select your region:<ol style="list-style-type: none"><li>Europe (cf-eu10)</li><li>Europe EU Access (cf-eu11) (Restricted to EU only contracts.)</li><li>US East (cf-us10)</li></ol></li><li>Enter a name for your subdomain.</li></ol> |
|----|--|

### ⚠ Caution

The subdomain is the tenant name used for login. Once defined, you can't change it later.

The subdomain also becomes part of the application URL for SAP Subscription Billing according to this pattern: <subdomain>.<region>.revenue.cloud.sap

The subdomain can contain only letters, digits and hyphens. Hyphens aren't allowed in the beginning or at the end. The subdomain must be unique across all accounts in the same region of the Cloud Foundry environment of SAP BTP.

You can use upper case and lower case letters; however, they can't be used to differentiate subdomains ("SUBDOMAIN" and "subdomain" are considered the same).

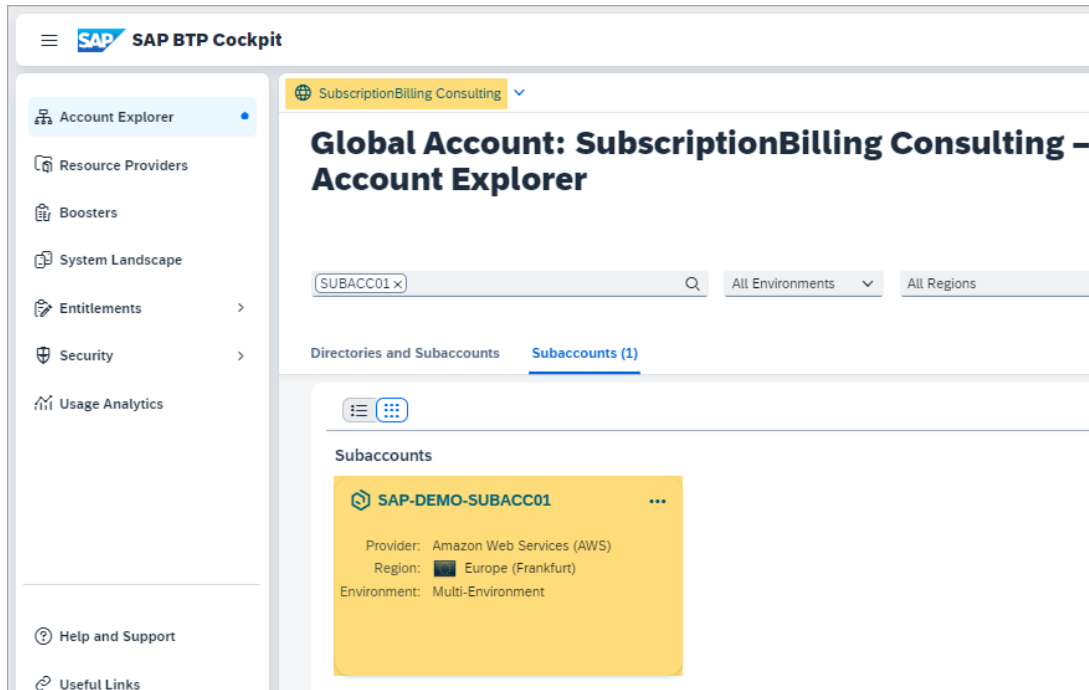
- For productive subaccounts, **don't** select *Enable beta features*.
- Select *Create*.

**Create Subaccount**

Display Name *	Description
SAP-DEMO-SUBACC001	Demo tenant
Region *	
Europe (Frankfurt) ▼	
Subdomain * ⓘ	Parent *
sap-demo-subacc001-2vts8cg9	SubscriptionBilling Consulting
▼ Advanced	
<input type="checkbox"/> Used for production ⓘ	
<input type="checkbox"/> Enable beta features ⓘ	
Labels ⓘ	
Name:	Values:
Enter label name	
+	
Create Cancel	

**Step**    **Task**

4. You see a tile for your subaccount on the *Subaccounts* tab. Wait for the “Onboarding” status to finish before accessing the subaccount.



**Note**

You are automatically assigned to the subaccount as administrator. To learn how to add other users as subaccount administrators, see [Define Security Administrators in Your Subaccount \[page 23\]](#).

## 4.1.4 Assign Entitlements

You need to assign entitlements if you want to use SAP Subscription Billing and its APIs.

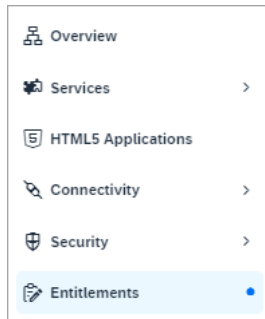
Your SAP BTP global account has entitlements to use resources, such as services and memory. Distribute quotas of these entitlements to your individual subaccounts (tenants) to define the maximum consumption for each subaccount.

**Note**

You have a total of 3 entitlements to distribute across a maximum of 3 tenants.

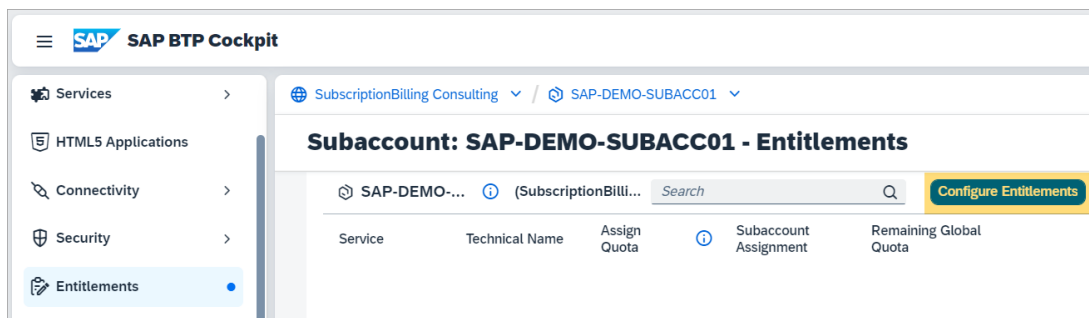
**Step**    **Task**

1. In your subaccount, choose *Entitlements* in the navigation panel.

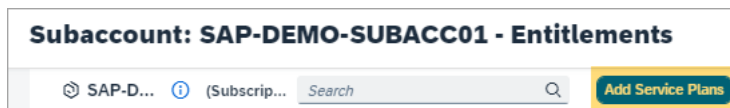


You see the table of subaccount assignments and service plans.

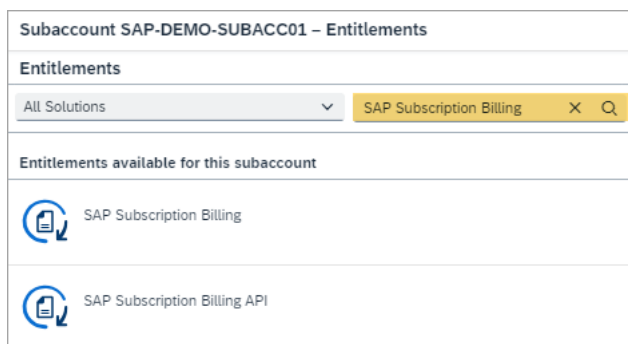
2. Select *Configure Entitlements*.



3. To open the list of resources that you're entitled to use, select *Add Service Plans*.



4. Search for **SAP Subscription Billing**. You see then both services for the application and for the API.

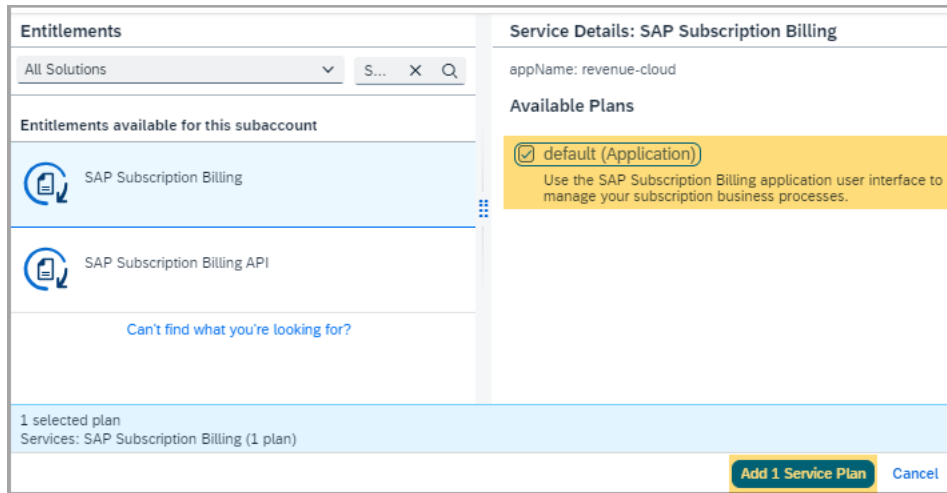


**Step**      **Task**

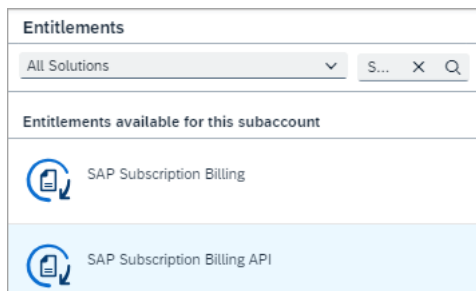
---

5. Start with the application:

Select the service **SAP Subscription Billing**, check the service plan *default (Application)*, and then add the service plan.



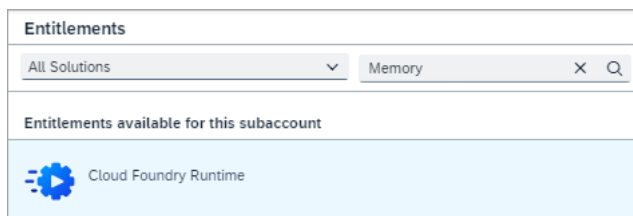
6. Repeat the steps 3 - 5 for the service **SAP Subscription Billing API**. This service enables you to call SAP Subscription Billing APIs .



7. Add 1 entitlement quota to the plan for the **SAP Subscription Billing API** service and then save your changes.

8. Optional:

If you want to develop your own applications or process extensions on SAP BTP Cloud Foundry, repeat these steps for the entitlement Cloud Foundry Runtime with the service plan "MEMORY".



You can adjust quotas for only one subaccount at a time. To adjust quotas for multiple subaccounts, complete these steps for each subaccount.

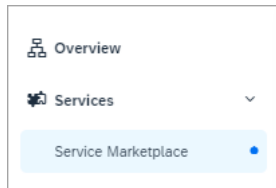
If you have distributed the maximum of your purchased quotas, you can't increase it further. However, you can move quotas between subaccounts in the same global account.

## 4.1.5 Subscribe to SAP Subscription Billing

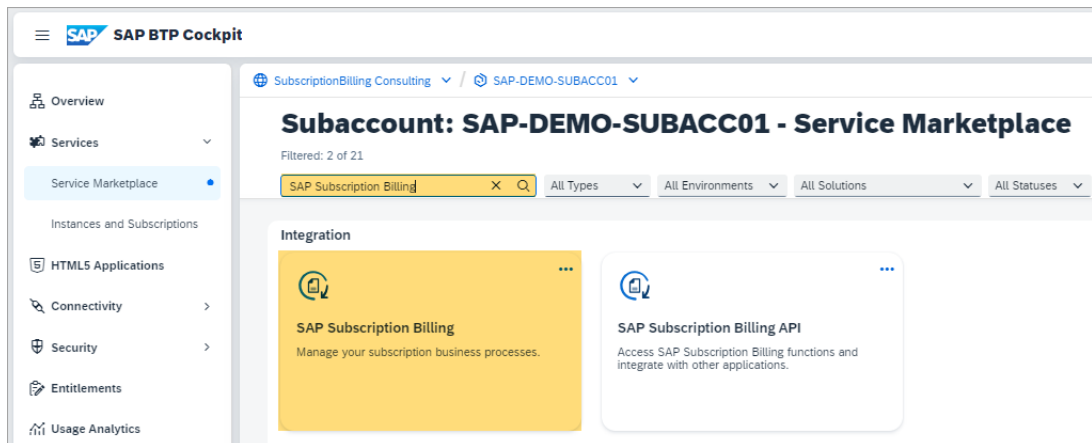
To use the SAP Subscription Billing solution, you must subscribe to the application for your subaccount

Step	Task
------	------

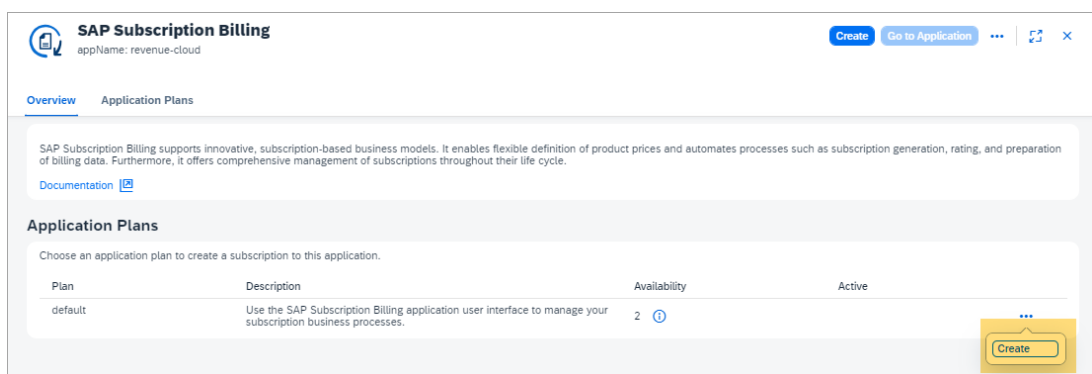
1. Go to your subaccount and choose **Services** > **Service Marketplace** in the navigation panel.



2. You see all the services that are available to you. Search for and select the application SAP Subscription Billing.



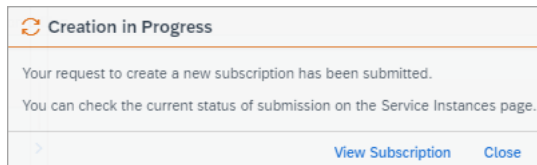
3. Under **Application Plans**, display the action menu of the plan for which you want to create a subscription and select **Create**.



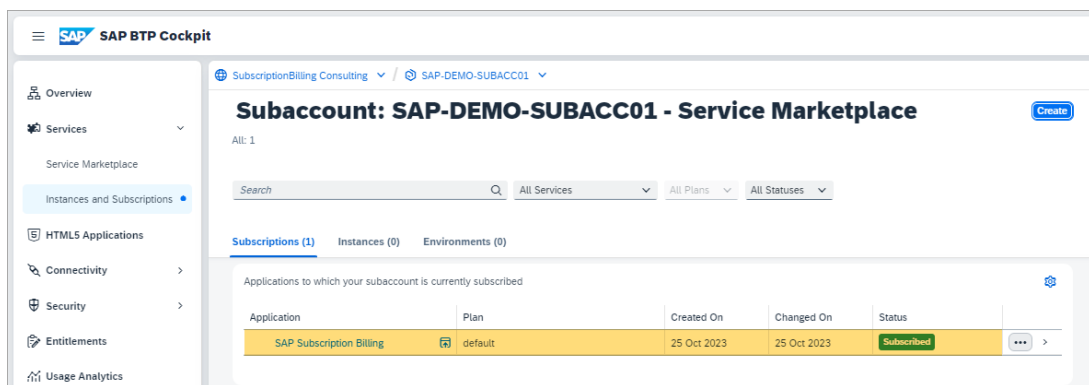
4. Check the basic info and then select **Create**.

**Step**      **Task**

5.            The creation process starts. Select *View Subscription* to switch to the *Instances and Subscriptions* screen.



6.            You're subscribed to the SAP Subscription Billing application.  
With this step, your tenant is created.



## 4.2 Enable UI Access

This chapter describes how to configure authentication and authorization for the users of your application. Thus, you can enable them to log on to the SAP Subscription Billing UI and get access to the appropriate apps and data.

### 4.2.1 Give Yourself Access as an Administrator

To give **yourself** access to the SAP Subscription Billing UI, you need to do the following:

1. Build at least one role collection, as described in the section [Build Role Collections \[page 34\]](#).

→ Recommendation

To administrators, we recommend the role `ui_applications_all`, which provides you with the complete set of authorizations and allows you to test all apps.

2. Assign at least one role collection to your user, as described in the section [Assign Role Collections to Users or User Groups \[page 39\]](#).
3. Log on to the SAP Subscription Billing application.

4. To enable UI access for further users, repeat steps 1 and 2 for these users to assign the appropriate role. Please consider that these users must be available in the identity provider (IdP) that is attached to the subaccount.

You find more information on authentication and single sign-on of business users in the sections [Enable Authentication and Single Sign-On for Business Users \[page 25\]](#) and [Assign Your Own Identity Provider \(IdP\) to Your Subaccount \[page 27\]](#).

## 4.2.2 Define Security Administrators in Your Subaccount

To configure authentication and authorization for business users, you need a platform user with the specific role *User & Role Administrator*. When you create a subaccount, SAP BTP automatically grants this role to your user.

If you want to enable other users to configure authentication and authorization, you can assign the role by adding the users as security administrators in your subaccount. In cloud management tools feature set B, this role is bundled in the role collection *Subaccount Administrator*.

For more information, see [Role Collections and Roles in Global Accounts, Directories, and Subaccounts \[Feature Set B\]](#) in the SAP BTP documentation.

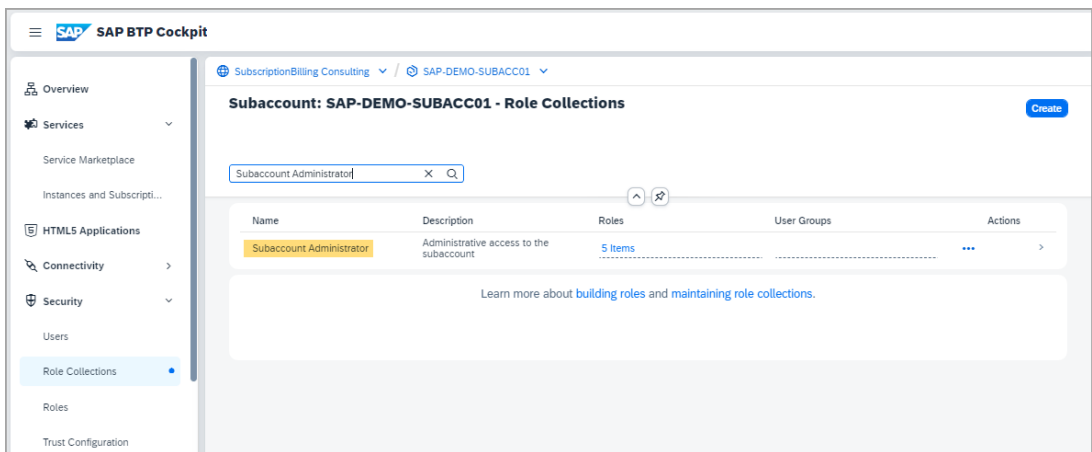
The following instructions show how a security administrator; for example, the user who created the subaccount, can authorize another platform user to also become a security administrator.

The users that you want to add as security administrators in a subaccount must have at least one of the following memberships:

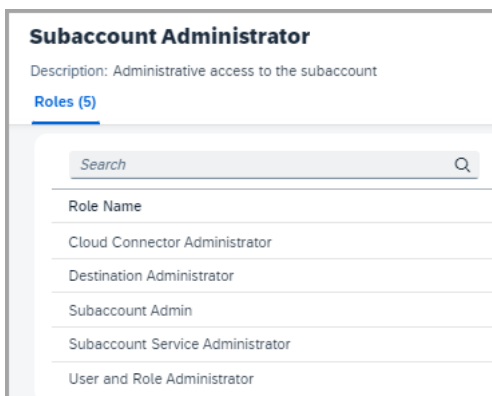
- Member of the Cloud Foundry organization (if available) in the subaccount.
- Member of any Cloud Foundry space that belongs to the organization.
- Members of the global account that contains your subaccount: see the section [Add Administrators to Global Account \[page 14\]](#).

**Step**      **Task**

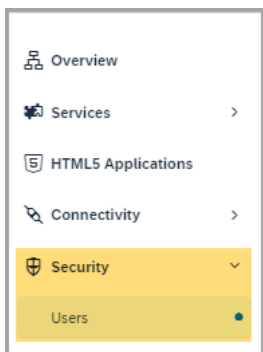
1. In your subaccount, choose **Security** > **Role Collections** in the navigation panel. Search for the role collection *Subaccount Administrator*.



2. Ensure that the collection contains the role *User and Role Administrator*. This is the key role for security administrators.



3. To assign to the role collection the users that you want as security administrators, you first have to add the users to the subaccount. Navigate to **Security** > **Users**.

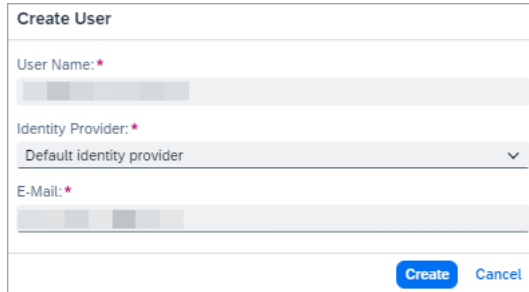




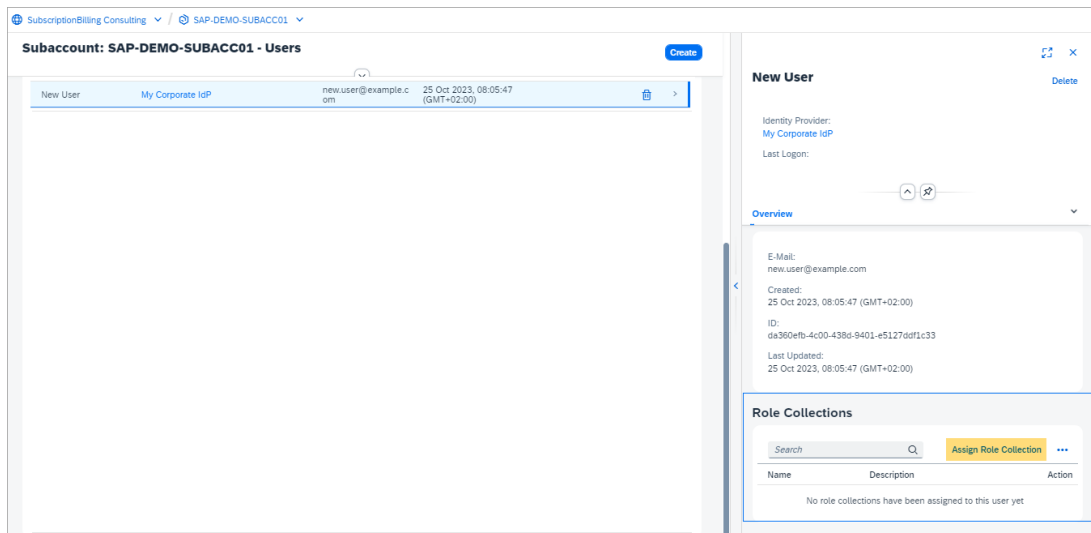
**Step**      **Task**

---

4.      Select *Create* and enter the required data.



5.      Select the new user you created to open the details page. In the details, choose *Assign Role Collection*.



6.      Assign the role collection *Subaccount Administrator*. Repeat the steps for all users you want to make subaccount administrators.

The added users have now access to the subaccount as security administrators.

---

## 4.2.3 Enable Authentication and Single Sign-On for Business Users

### Overview

SAP Subscription Billing relies on the user management features of SAP Business Technology Platform (SAP BTP). For the business user access to SAP Subscription Billing, you maintain the users in the SAP BTP subaccount where SAP Subscription Billing is subscribed.

Users are stored in identity providers. For each user that you want to enable to log on to SAP Subscription Billing, a copy user called *shadow user* is created in the subscribed SAP BTP subaccount. The authentication of business users to access the SAP Subscription Billing user interface is delegated to the original identity provider, and users can log on with the mechanisms and credentials defined there, for example, with their email address and password. The authorizations of the users are defined with the assignment of role collections to the shadow user in the SAP BTP cockpit. See [Working with Users](#) in the SAP BTP documentation.

For more background information, see [SAP Authorization and Trust Management Service in the Cloud Foundry Environment](#).

**Note:** This documentation mainly concentrates on the role of the SAP BTP business user. For information about platform users, see [Platform Users](#) in the SAP BTP documentation.

## Identity Providers for User Authentication

You enable authentication and single sign-on for business users by establishing a trust relationship between your SAP BTP accounts and your identity provider (IdP).

SAP BTP supports the following identity providers:

- SAP Cloud Identity Services – Identity Authentication service (SAP's cloud solution for identity life cycle management) on SAP BTP
- SAML 2.0 standard compliant IdP
- SAP ID service (SAP-administered IdP)

### → Recommendation

We recommend that you always use SAP Cloud Identity Services - Identity Authentication as single identity provider for SAP BTP. If you use corporate identity providers, connect them to your Identity Authentication tenant, which then acts as a hub. We especially recommend this if you are using multiple corporate identity providers.

For SAP ID service, trust is preconfigured on SAP BTP by default, however we don't recommend that you use SAP ID service for your business users for productive scenarios of SAP Subscription Billing.

As an SAP-administered IdP, SAP ID service doesn't support administrative access and has the following restrictions:

- User registration works through self-service: You can't provision users to SAP ID service, you can't lock users (for example, if their responsibility within the company changes or if they leave the company).
- You can't create user groups to simplify the assignment of role collections.
- You can't configure single sign-on to work with other applications controlled by your own identity provider. In other words, you can't configure IdP proxying with the SAP ID service.

Based on this recommendation, a typical setup could look like this:

- The initial users for setting up and configuring SAP Subscription Billing are provided by the SAP ID service including preconfigured trust. Further business users with an account in SAP ID service (<https://accounts.sap.com/>) can be authorized for the initial configuration.
- The initial users configure trust to a SAP Cloud Identity Services – Identity Authentication tenant. A separate tenant is used for the subaccount where you run SAP Subscription Billing productively.

- If you use corporate identity providers, connect them to your Identity Authentication tenant. This way, these identity providers remain the origin of the identity information and your business users can log in to SAP Subscription Billing with their respective credentials or with single sign-on.

For more information, see [Trust and Federation with Identity Providers](#) in the SAP BTP documentation.

## Managing Users in the SAP BTP Subaccount

There are different options to create shadow users in your SAP BTP subaccount:

- SAP BTP automatically creates the user in the global account or in the subaccount when a user-related action happens. This automatic creation of shadow users is switched off by default for the default identity provider. See [Switch Off Automatic Creation of Shadow Users](#) in the SAP BTP documentation.
- You can manually create users on the user interface in the SAP BTP cockpit. See [Create Users](#) in the SAP BTP documentation.
- You can use SAP Cloud Identity Services – Identity Provisioning to maintain users.

### → Tip

For more information on user creation in integration scenarios with S/4HANA Cloud, see [Integration with the SAP Fiori Launchpad of SAP S/4HANA Cloud](#) in the section *Creation of Business Users*.

For information on user deletion from SAP BTP, see [Delete Users](#) in the SAP BTP documentation.

## 4.2.4 Assign Your Own Identity Provider (IdP) to Your Subaccount

If you use the Identity Authentication service in SAP BTP, you can find more information in the SAP BTP documentation under [Manually Establish Trust and Federation Between SAP Authorization and Trust Management Service and Identity Authentication](#).

If you use a different IdP, you can find more information under [Establish Trust and Federation with UAA Using Any SAML Identity Provider](#).

The following instructions show how to assign Identity Authentication in SAP BTP to a subaccount as an identity provider. You do this by defining a mutual trust relationship between the identity provider and the SAP BTP subaccount in the SAP BTP cockpit and the admin console of the Identity Authentication service.

**Step**    **Task**

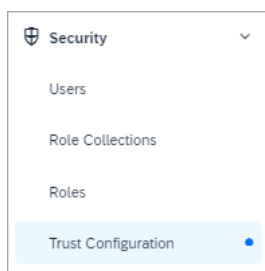
---

1. Download the SAML 2.0 metadata of your identity provider.  
For the Identity Authentication service, enter the URL <https://.accounts.ondemand.com/saml2/metadata> in your browser. Replace <Identity\_Authentication\_tenant> with the subdomain of your tenant for the Identity Authentication service.

**Note**

The subdomain of the Identity Authentication service isn't the same as the subdomain of the subaccount that you use for your SAP Subscription Billing application.

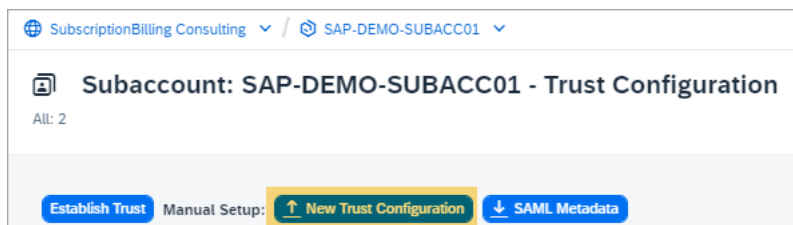
2. In your global account, select your subaccount and ensure that the *Security* menu is available.



**Tip**

If the menu isn't available, your user isn't a security administrator and not authorized for assigning an IdP. See the section [Define Security Administrators in Your Subaccount \[page 23\]](#) for more details.

3. Choose *Trust Configuration* and then select *New SAML Trust Configuration*.



Step	Task
------	------

- |    |   |
|----|---|
| 4. | Select <i>Upload</i> and add the file with the SAML 2.0 metadata of your identity provider that you downloaded in step 1. |
|----|---|

**New Trust Configuration**

Metadata: \*

Upload XML File

Enter metadata in XML format.

Name: \*

Description:

Origin Key: \*

Status: Active

**Step**      **Task**

5. Enter a *Name* and *Origin Key* for your identity provider. Then select *Save*.

**New Trust Configuration**

Metadata: \*

*Enter metadata in XML format.*

Name: \*

Description:

Origin Key: \*

Status:  ▾

Available for User Logon:

Link Text for User Logon:

Create Shadow Users During Logon:

[Show Details](#)

**Note**

The name is displayed when the identity provider can be selected; for example, when business users log in. In this guide, we use “My Corporate IdP” as the example provider.

The origin key is used in the audit log; for example, to uniquely identify the source of an authenticated user.

6. Download the SAML 2.0 metadata of your subaccount.
1. Replace with the subdomain of your subaccount and with the region your subaccount is located, such as eu10 or us10.
  2. In the *Trust Configuration* screen, select *SAML Metadata*.

SubscriptionBilling Consulting / SAP-DEMO-SUBACC01

**Subaccount: SAP-DEMO-SUBACC01 - Trust Configuration**

All: 2

Manual Setup:

The following high-level steps need to be followed in the administration UI of your identity provider.

For more information, see [Manually Establish Trust and Federation Between SAP Authorization and Trust Management Service and Identity Authentication](#).

**Step**    **Task**

---

7. Go to the administration UI of your identity provider.

For the Identity Authentication service, replace with the name of your IAS tenant:

**Note**

Your user needs the administration roles.

---

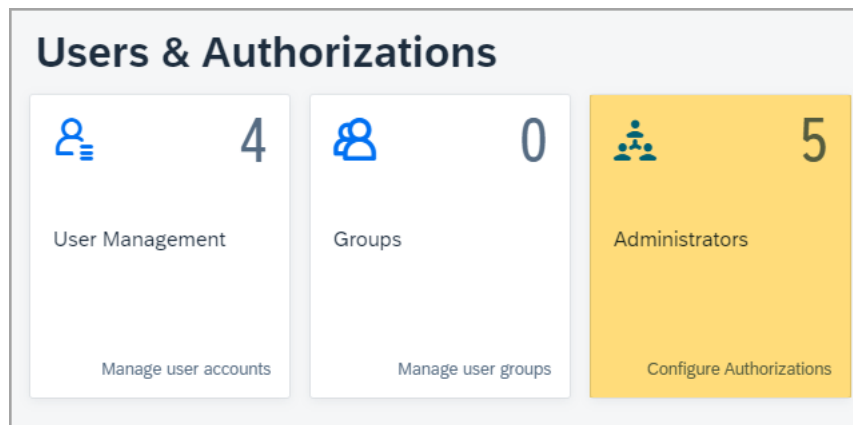
8. Ensure that your user has the required authorizations in the identity provider.

**Note**

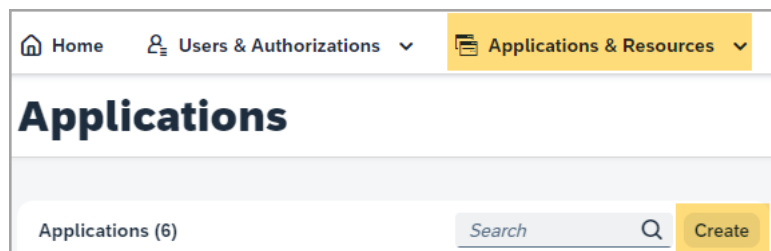
In IAS, your user must be added as *Administrator* and at least have the authorization to *Manage Applications*.

---

9. Open the *Administrators* app.



10. To add SAP Subscription Billing as an application (SAML service provider), choose **Applications & Resources** > **Applications** and select **Create**.



11. Enter the application name.

---

**Step**      **Task**

---

12. For the newly created application, select *SAML 2.0 Configuration* and select *Create*.

**Create Application**

Display Name: \*  
SAP Subscription Billing

Home URL:  
[Empty field]

Type:  
Unknown

Parent application:  
None

Protocol Type:  
 SAML 2.0  
 OpenID Connect

+ Create    Cancel

13. Go to the *Trust* tab of the newly created application, and then choose *SAML 2.0 Configuration*.

**SAP Subscription Billing**

Application type: Charged      Application ID: [Redacted]  
Name Type: Unknown      URL: [Redacted]  
Protocol Type: SAML 2.0

**Trust**    Authentication and Access    Branding and Layout

**Single Sign-On**

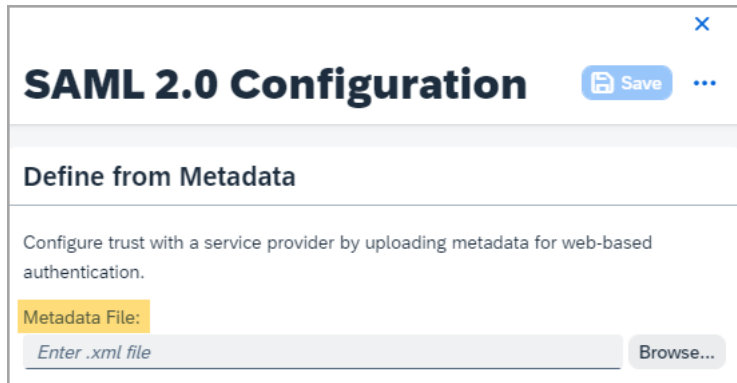
Multitenant Application  
Allow application to be used in multiple tenants.

**SAML 2.0 Configuration**  
Configure trust with a service provider by uploading metadata for web-based authentication.



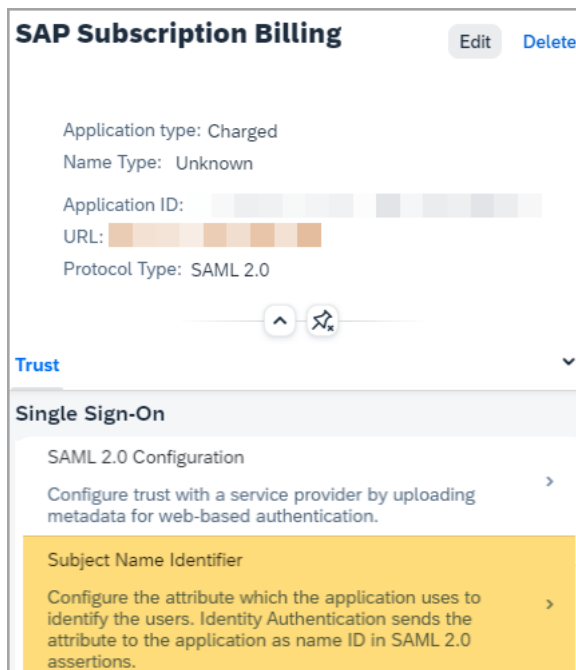
Step Task

14. Under *Define from Metadata*, upload the SAML 2.0 metadata of your subaccount that you previously downloaded.



The screenshot shows a dialog box titled "SAML 2.0 Configuration" with a close button (X) in the top right corner. Below the title bar, there is a "Save" button and a menu icon (three dots). The main content area is titled "Define from Metadata" and contains the text: "Configure trust with a service provider by uploading metadata for web-based authentication." Below this text, there is a label "Metadata File:" followed by a text input field containing the placeholder text "Enter .xml file" and a "Browse..." button.

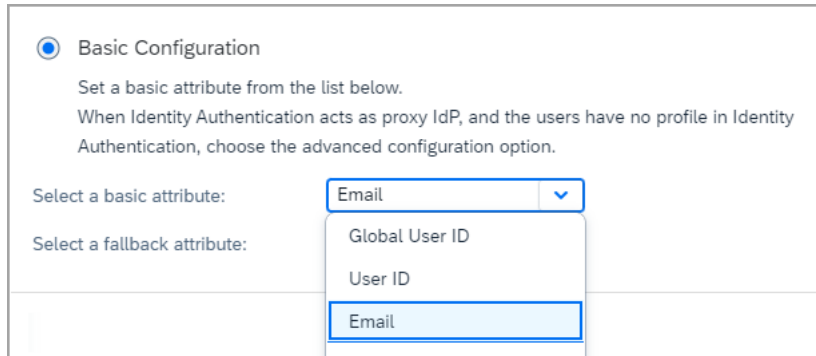
15. Back in the application, select *Subject Name Identifier*.



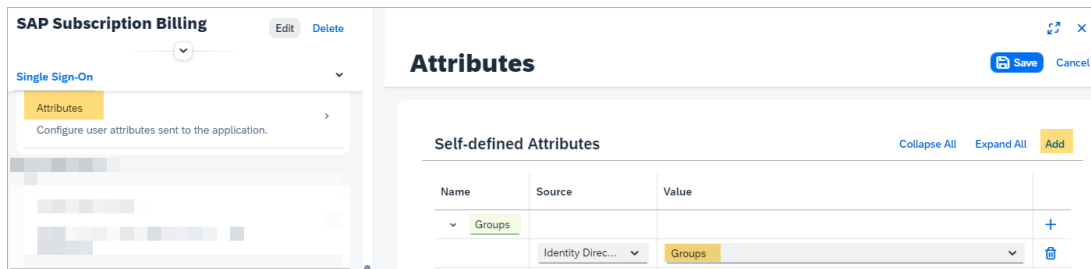
The screenshot shows the "SAP Subscription Billing" configuration page. At the top, there are "Edit" and "Delete" buttons. The page displays the following configuration details: "Application type: Charged", "Name Type: Unknown", "Application ID:" followed by a blurred field, "URL:" followed by a blurred field, and "Protocol Type: SAML 2.0". Below these details are two circular icons, one with an upward arrow and one with a star. A "Trust" section is expanded, showing a "Single Sign-On" section with two items: "SAML 2.0 Configuration" and "Subject Name Identifier". The "Subject Name Identifier" item is highlighted in yellow and has a right-pointing arrow next to it. The description for "Subject Name Identifier" reads: "Configure the attribute which the application uses to identify the users. Identity Authentication sends the attribute to the application as name ID in SAML 2.0 assertions."

**Step**    **Task**

16. Under *Basic Configuration*, choose the attribute *E-Mail* and then save.



17. Optional: If you want to assign role collections to groups rather than to individual users, choose **Trust** **Attributes**, select *Add* and assign *Groups* as an additional attribute.



**Note**

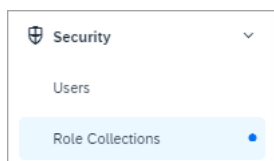
The assertion attribute must be "Groups" (case-sensitive).

## 4.2.5 Build Role Collections

You need to define role collections to control user authorization for the SAP Subscription Billing UI and apps.

**Step**    **Task**

1. In your global account, open the subaccount. In the navigation panel, choose **Security** **Role Collections**.

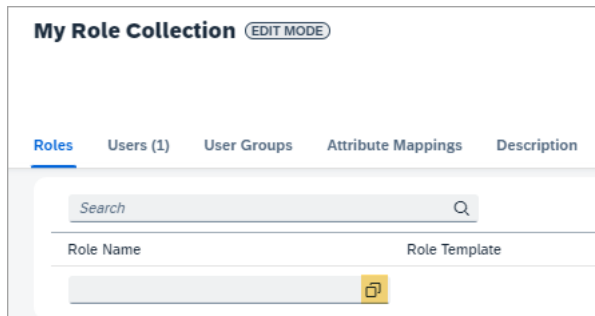


2. To create a new role collection, select *Create*.
3. Name your role collection and select *Create*. In this guide, we use "My Role Collection" as the example name.

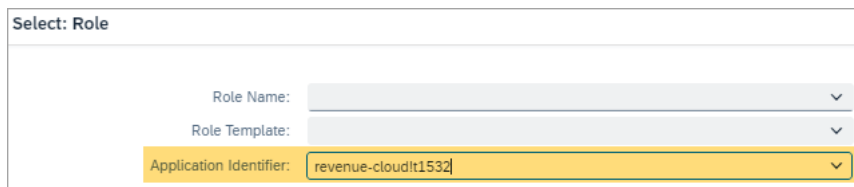
**Step**      **Task**

---

4. To start adding roles, search for the new role collection in the table and select the row.
5. In the overview of the role collection, select *Edit* to open the screen in edit mode.
6. Under **Roles** > *Role Name*, select the icon of the input field to open the role selector.



7. In the list *Application Identifier*, choose the identifier that begins with "revenue-cloud". This identifier filters by the roles from SAP Subscription Billing.



**Step**      **Task**

- The table *Roles* shows all the available roles for SAP Subscription Billing. You can filter by roles and templates to reduce the number of rows. Then select the roles that you want in your collection.

**Note**

You can find information about the available role templates under [Build Role Collections](#) in the *Setup and Administration Guide*:

**Roles for SAP Subscription Billing**

The available roles for each app are listed in the table below. The table also shows the roles that need to be combined (marked *Required*) in a role collection to provide basic view (display-only) and manage authorizations. You can give dedicated business users access to further data or actions via roles that aren't part of the basic/minimum authorization. You can assign multiple role collections to users to define an overall set of roles.

App	Role Template (Role)	Description	Basic View Authorization	Basic Manage Authorization
All	ui_applications_all	Create, update, view, and delete data in all apps.	<b>Caution</b> This role provides the complete set of authorizations. For productive use, we recommend that you configure suitable roles for your users.	
All with exceptions (see <a href="#">Authorization for Markets</a> below)	ui_market_restriction	Restrict authorization for markets.		
<b>Manage Allowance Templates</b>	ui_allowance_template_view	View allowance templates.	Required	Required
	ui_business_configuration_config_view	View configuration values.	Required	Required
	ui_allowance_template_manage	Manage allowance templates.		Required
	ui_allowance_template_delete	Delete allowance templates.		
<b>Manage Billing Data</b>	ui_bill_view	View billing data.	Required	Required
	ui_business_configuration_config_view	View configuration values.	Required	Required
	ui_bill_manage	Close a bill manually, set a bill to manual closing, manage		Required

- Once you have selected all the roles for the collection, confirm the selection by clicking *Add*.

**Select: Role**

Role Name:

Role Template:

Application Identifier:

**Roles**

<input type="checkbox"/>	Role Name	Role Template	Application Identifier
<input type="checkbox"/>	ui_applications_all	ui_applications_all	revenue-cloudt1532

**Add**    **Cancel**

The screenshot shows the role “ui\_applications\_all”, which provides the complete set of authorizations, as an example.

For productive use, we recommend that you configure suitable roles for your users.

- Select *Save* to close the edit mode.

Step	Task
11.	Now your role collection shows the assigned roles. Repeat these steps if you want to add further roles to the collection.

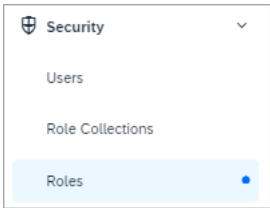
## 4.2.6 Define Roles to Restrict Authorization by Market (Optional)

You can restrict user access to data that is associated with certain markets. For example, a user can be allowed to only display billing data for subscriptions in a particular market.

You restrict the markets for which users have authorization by assigning them a role collection that contains at least one role based on the role template “ui\_market\_restriction”. The role for market authorization restriction doesn’t determine whether the user has permission to view or manage data for an object type. Therefore, in the relevant role collections you need to combine the market restriction role with the functional roles (view/ manage) for object types.

Users without a role that restricts market authorization have access to data for all markets.

For detailed information about the data that is visible to users who are authorized only for certain markets, see [Build Role Collections](#) in the *Setup and Administration Guide*.

Step	Task
1.	In the navigation panel, choose <b>Security &gt; Roles</b>
	
2.	Enter “market” in the search field to find the role that restricts authorization for markets.
3.	In the row that contains the role template “ui_market_restriction”, select <b>Create Role</b> to create a role based on the current role template.

Application Name	Application Description	Role Template	Role Name	Role Description	Add Role	Actions
price-management	Price Calculation	ui_market_restriction	ui_market_restriction		Create Role	
revenue-cloud	Revenue Cloud SaaS Application	ui_market_restriction	ui_market_restriction	Restrict authorization for markets.	Create Role	

**Step**    **Task**

---

4. Follow the guided steps to create a new role with one or several market values.

Enter a name and description for the role. Make sure that you clearly identify the markets for which the role restricts authorization.

The screenshot shows the 'Create Role' wizard at step 1, 'Configure Role'. The progress bar at the top indicates four steps: 1. Configure Role (active), 2. Configure Attributes, 3. Select Role Collections, and 4. The main content area is titled 'Configure Role' and contains the following fields: 'Role Name: \*' with the value 'Market\_Germany', 'Description:' with the value 'Authorization for market Germany', and 'Role Template: \*' with the value 'ui\_market\_restriction'. At the bottom right, there are 'Next' and 'Cancel' buttons.

5. Under *Values*, enter the IDs of the markets for which the role grants authorization (press Enter after entering an ID). Leave the source set as *Static*.

The screenshot shows the 'Create Role' wizard at step 2, 'Configure Attributes'. The progress bar at the top indicates four steps: 1. Configure Role, 2. Configure Attributes (active), 3. Select Role Collections, and 4. The main content area is titled 'Configure Attributes' and contains a table with the following structure:

Attributes	Source	Values
Market	Static	Specify the attribute values and press Enter

At the bottom right, there are 'Previous', 'Next', and 'Cancel' buttons.

**Note**

Make sure that you enter the IDs exactly as they are defined in Business Configuration.

6. We recommend that you use separate role collections for market restrictions, rather than using collections that combine market and functional roles (view/manage).

By keeping the role types separate, you have more transparency.

You can skip this step and create a new role collection for market authorization afterwards.

---

Step	Task
------	------

7. Review the role data and finish the creation process.

### Review

Check the entered data of your new role.

#### Configured Role

Role Name: Market\_Germany  
Description: Authorization for market Germany  
Role Template: ui\_market\_restriction

#### Configured Attributes

Market: Germany

#### Selected Role Collections

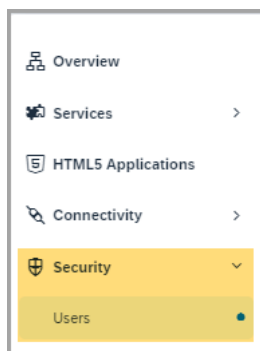
To create a new role collection for market authorization and assign the roles for markets, follow the steps in the section [Build Role Collections \[page 34\]](#).

## 4.2.7 Assign Role Collections to Users or User Groups

In the SAP BTP cockpit, you must assign role collections to IdP users or user groups. The following description shows how to assign collections to individual users with the example identity provider that we set up in the section [Assign Your Own Identity Provider \(IdP\) to Your Subaccount \[page 27\]](#) in this guide.

Step	Task
------	------

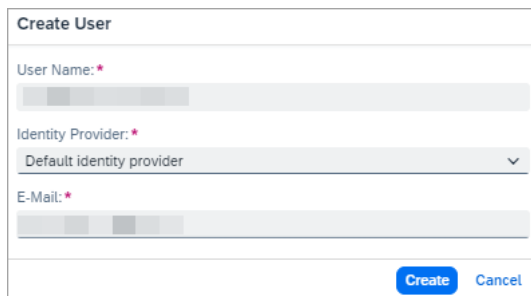
1. In your subaccount, navigate to **Security > Users**.



**Step**      **Task**

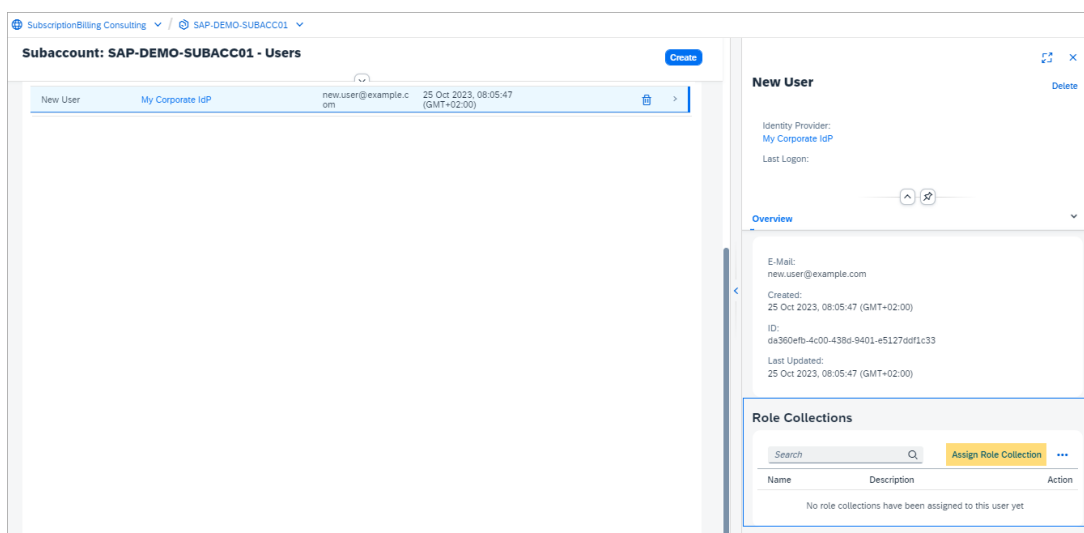
---

2. To create a new user, select [Create](#) and enter the required data. Alternatively, select an existing user from the list in the overview.



The 'Create User' form contains three input fields: 'User Name: \*', 'Identity Provider: \*' (with a dropdown menu showing 'Default identity provider'), and 'E-Mail: \*'. At the bottom right, there are two buttons: 'Create' and 'Cancel'.

3. Choose the user to open the details page. In the details under *Role Collections*, select [Assign Role Collection](#).



The screenshot shows the 'New User' details page. The main area displays a table with one user entry: 'New User' with 'My Corporate IdP' as the identity provider, email 'newuser@example.com', and creation time '25 Oct 2023, 08:05:47 (GMT+02:00)'. A right-hand sidebar shows user details: 'Identity Provider: My Corporate IdP', 'Last Logon:' (with a refresh icon), and an 'Overview' section with 'E-Mail: newuser@example.com', 'Created: 25 Oct 2023, 08:05:47 (GMT+02:00)', 'ID: da360efb-4c00-438d-9401-e5127ddf1c33', and 'Last Updated: 25 Oct 2023, 08:05:47 (GMT+02:00)'. Below this is the 'Role Collections' section, which includes a search bar, an 'Assign Role Collection' button, and a table with columns 'Name', 'Description', and 'Action'. A message at the bottom states: 'No role collections have been assigned to this user yet'.

4. Search for the role collection you want to assign, select the role collection, and choose [Assign Role Collection](#).
  5. Now the user has at least one role collection assigned.
- 

## 4.3 Enable API Access

API access to SAP Subscription Billing is based on the OAuth 2.0 specification, implemented by the SAP Authorization and Trust Management service (XSUAA) in the Cloud Foundry Environment on SAP Business Technology Platform (SAP BTP). You create a service instance for API access to SAP Subscription Billing which represents the OAuth client. By providing relevant scopes via a JSON parameter, you define which functions and data the OAuth client can retrieve. For more information, see [SAP Authorization and Trust Management Service \(XSUAA\) in the Cloud Foundry Environment](#) in the SAP BTP documentation.



For the service instance you create service keys, which contain the relevant information for retrieving access tokens for the API access. There are two different ways of how a client can authenticate against the token server to retrieve the access token:

- Using client ID and client secret from the service key
- Using a client certificate from the service key

If you use a client certificate you provide an “external” certificate when creating the service key. In case of an integration with SAP S/4HANA Cloud, it is recommended to use the *Client Default* certificate provided to the respective tenant, in other cases you bring your own external X.509 certificate.

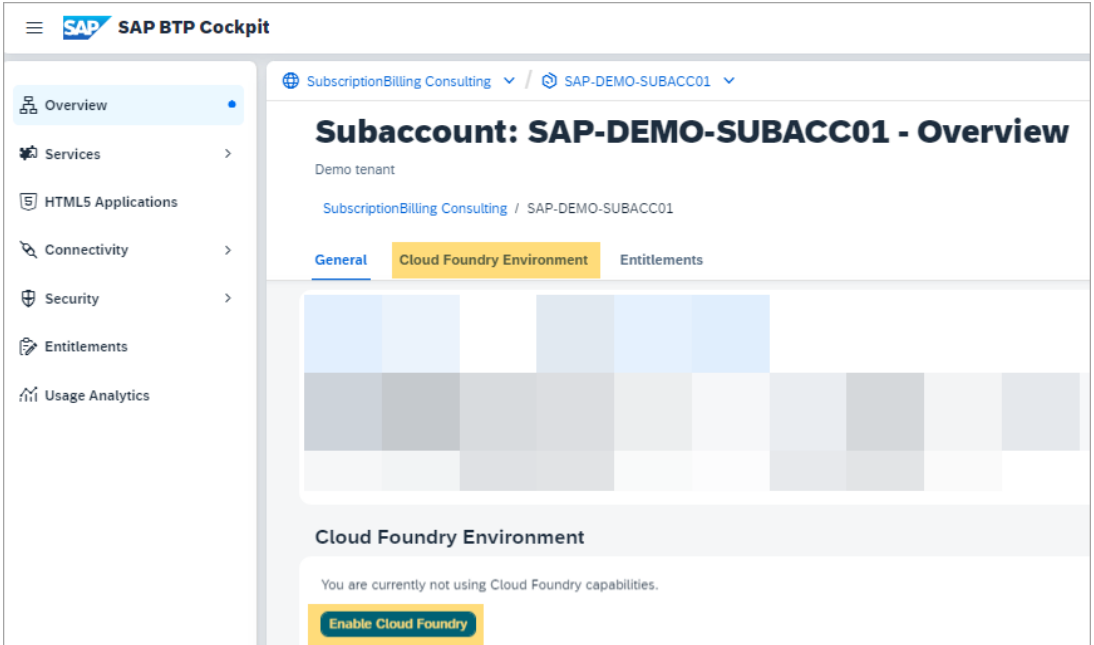
When using X.509 client certificates from the service key, access tokens are retrieved with Mutual Transport Layer Security (mTLS). This is considered more secure than a combination of client ID and client secret. Unlike retrieving the access token with client ID and client secret, no secret is shared between calling application and the service instance of XSUAA. See [Retrieving Access Tokens with Mutual Transport Layer Security \(mTLS\)](#) in the SAP BTP documentation.

Service instances and service keys are set up in a Cloud Foundry space in the subaccount for which you enable SAP Subscription Billing API access. The chapters [Create a Service Key with Client ID and Client Secret \[page 48\]](#) and [Create a Service Key with Client Certificate \[page 50\]](#) describe the setup and the two different options for the service keys.

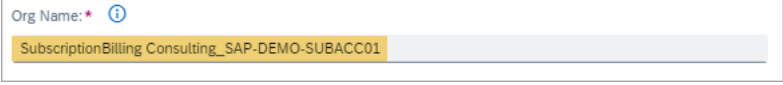
## 4.3.1 Enable Cloud Foundry

You need to set up the Cloud Foundry environment for your subaccount if you want to call SAP Subscription Billing APIs, develop your own applications, and process extensions on SAP BTP Cloud Foundry.

Step	Task
1.	In your global account, open the subaccount. In the overview, select <i>Enable Cloud Foundry</i> .



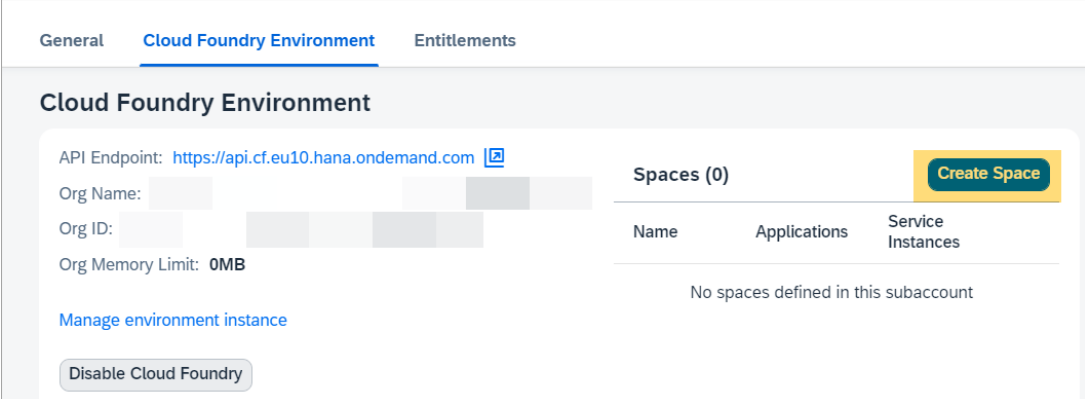
The screenshot shows the SAP BTP Cockpit interface. On the left is a navigation menu with options: Overview, Services, HTML5 Applications, Connectivity, Security, Entitlements, and Usage Analytics. The main content area displays the 'Subaccount: SAP-DEMO-SUBACC01 - Overview' page. At the top, it shows 'SubscriptionBilling Consulting' and 'SAP-DEMO-SUBACC01'. Below this, there are tabs for 'General', 'Cloud Foundry Environment', and 'Entitlements'. The 'Cloud Foundry Environment' tab is active, showing a grid of colored blocks (blue, grey, white). At the bottom of the page, there is a message: 'You are currently not using Cloud Foundry capabilities.' and a yellow button labeled 'Enable Cloud Foundry'.

Step	Task
2.	Enter an organization name and select <i>Create</i> . In this guide, we use the default suggestion as the example name.
	
3.	Cloud Foundry is enabled.

## 4.3.2 Create a Space

The Cloud Foundry environment uses spaces within subaccounts to allow you to deploy applications or services. You need at least one space to create the service instance that provides credentials for access to the SAP Subscription Billing APIs and enables further integration capabilities.

Step	Task
1.	Go to your the subaccount <i>Overview</i> where you enabled the Cloud Foundry for your subaccount.
2.	On the Cloud Foundry Environment tab, select <i>Create Space</i> .



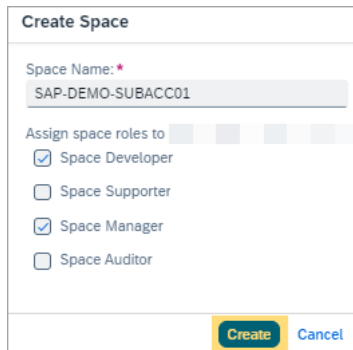
### Note

Subaccounts and orgs have a 1:1 relationship. They have the same name and therefore also the same navigation level in the cockpit.

**Step**      **Task**

---

3. Enter a space name, check the permissions you'd like to assign to your user, and then select *Create*.



**Create Space**

Space Name: \*  
SAP-DEMO-SUBACC01

Assign space roles to

- Space Developer
- Space Supporter
- Space Manager
- Space Auditor

Create Cancel

In this guide, we use the same name as the subaccount for the space example.

---

4. Your space is created.
- 

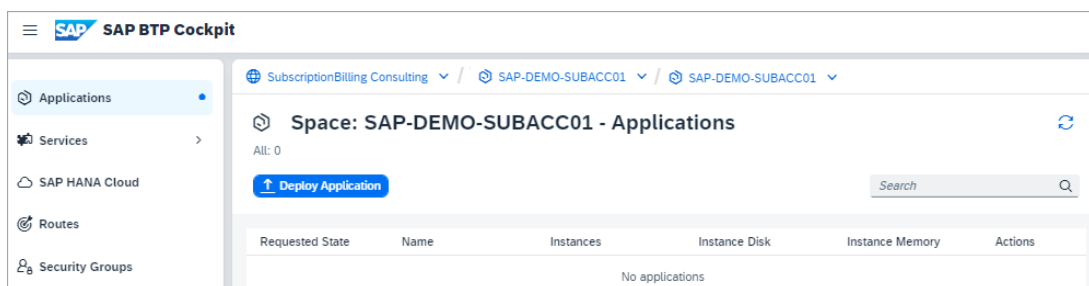
### 4.3.3 Add Members to Spaces and Assign Roles

To allow users to configure access to SAP Subscription Billing APIs, you need to add them as members to your spaces and assign the relevant roles for authorization. Access configuration is described in the section [Enable API Access \[page 40\]](#) in this guide.

**Step**      **Task**

---

1. Access your space.



SAP BTP Cockpit

SubscriptionBilling Consulting / SAP-DEMO-SUBACC01 / SAP-DEMO-SUBACC01

Space: SAP-DEMO-SUBACC01 - Applications

All: 0

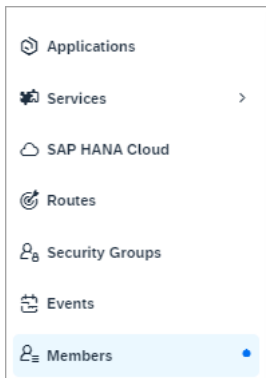
Deploy Application Search

Requested State	Name	Instances	Instance Disk	Instance Memory	Actions
No applications					

**Step**      **Task**

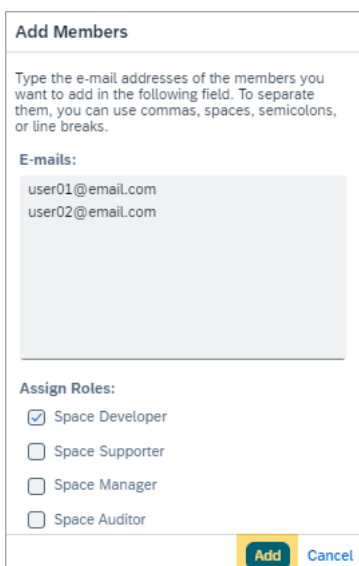
---

2. To assign members and roles to instances, choose *Members* in the navigation panel.



3. Select *Add Members*.
- 

4. Enter the email addresses of the users that you want to add.

A screenshot of a dialog box titled 'Add Members'. It contains the following elements: a text area with the instruction 'Type the e-mail addresses of the members you want to add in the following field. To separate them, you can use commas, spaces, semicolons, or line breaks.'; a label 'E-mails:' followed by a text input field containing 'user01@email.com' and 'user02@email.com' on separate lines; a section titled 'Assign Roles:' with four checkboxes: 'Space Developer' (checked), 'Space Supporter' (unchecked), 'Space Manager' (unchecked), and 'Space Auditor' (unchecked); and two buttons at the bottom: 'Add' (yellow) and 'Cancel' (blue).

**Note**

Members need the role “Space Developer” to read the credentials for the service instance.

For more information about the Cloud Foundry roles, see the [Cloud Foundry Documentation](#) .

5. Select *OK* to save your changes.
- 

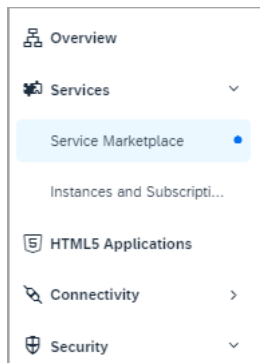
6. The users are now members of your space.
-

## 4.3.4 Create a Service Instance

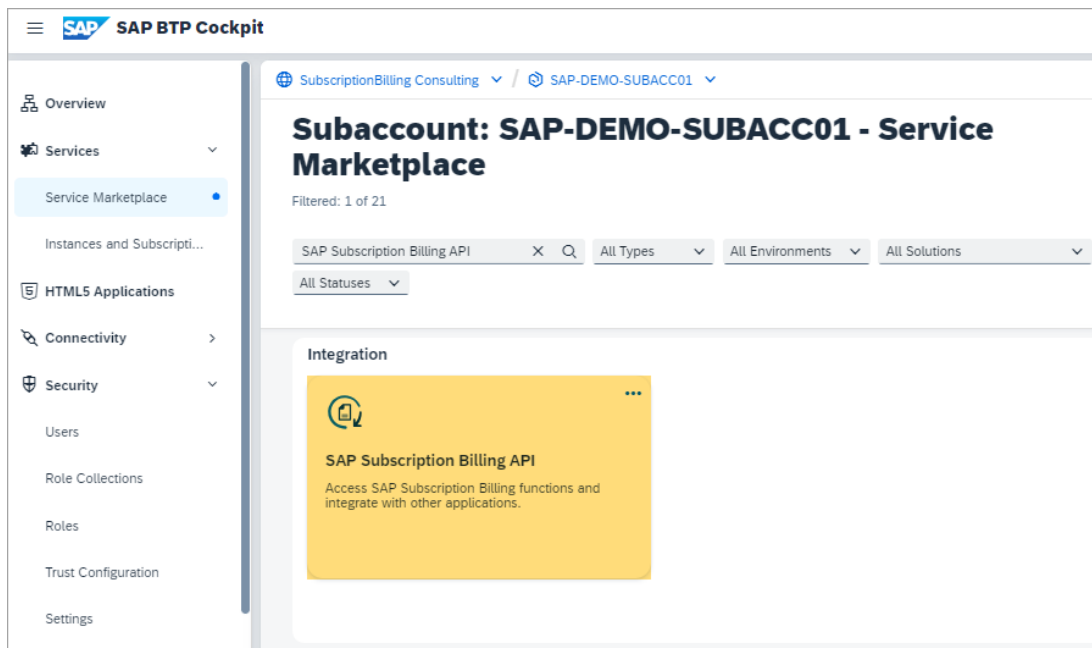
When you create an instance of the SAP Subscription Billing API service, you provide a set of scopes that define which of the APIs can be called and which activities can be done using service keys created for the instance.

Step	Task
------	------

1. In your space, choose **Services** > **Service Marketplace** in the navigation panel.

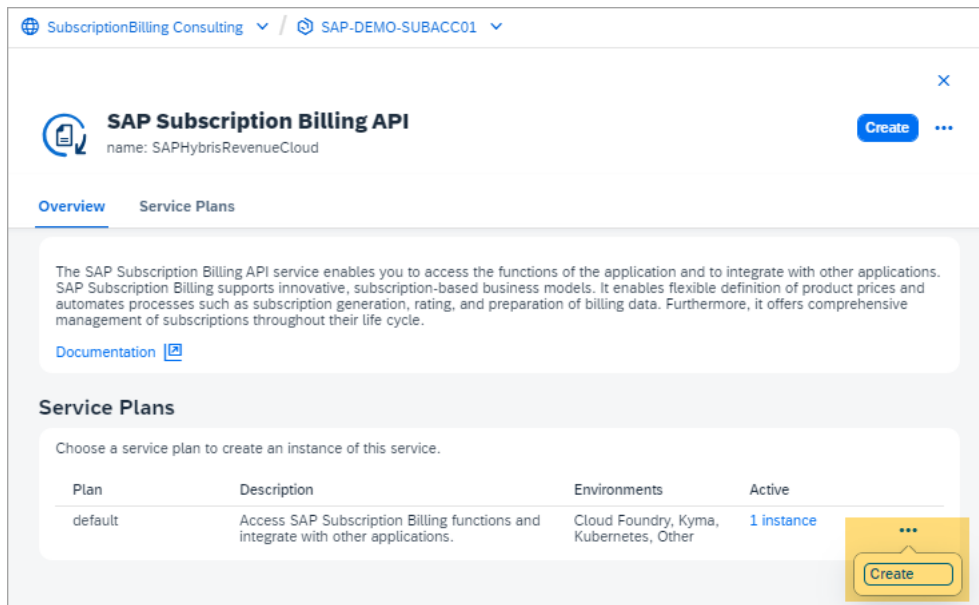


2. You see all the services that are available to you. Search for and select the service SAP Subscription Billing API.



**Step**      **Task**

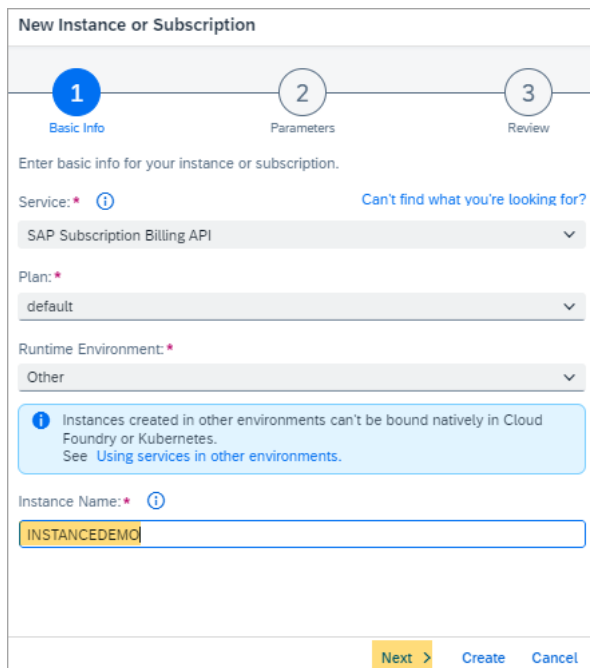
3. Under *Service Plans*, display the action menu of the plan for which you want to create an instance and select *Create*.



In this guide, we use the default plan for the example.

4. Name the instance and select Next.

In this guide, we use "INSTANCEDEMO" as the example name.



**Step**      **Task**

- To define the relevant scopes, specify a JSON file or specify parameters in JSON format.

**Note**

For an up-to-date list of scopes with their descriptions, see [SAP Subscription Billing API Scopes](#) in the API Guide.

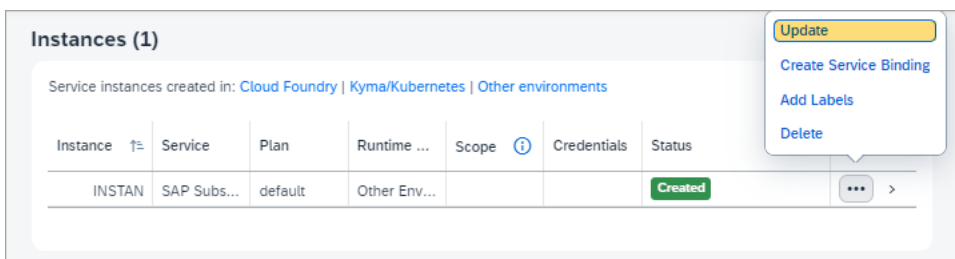
There may be a delay in updating this example when a new scope is introduced.



The example JSON file contains all the available API scopes. Adjust the file to restrict access according to your requirements. For testing purposes, you may want to start with a complete set up scopes for restricted users.

- After providing the instance parameters, select *Next*.
- Check that everything is correct and select *Create*.
- The creation process starts. Select *View Instance* to switch to the *Instances* screen.
- Your instance is created.

You can create multiple instances to provide different sets of scopes to different users. If you want to consume new APIs or new functionality of SAP Subscription Billing that require further scopes, you can also update an existing service instance and upload a new JSON file.



### Note

If you create an additional service instance in the same subaccount, you must use a different value for the attribute `xsappname` in the JSON file that contains the scopes. The `xsappname` must be unique within the subaccount.

## 4.3.5 Create a Service Key with Client ID and Client Secret

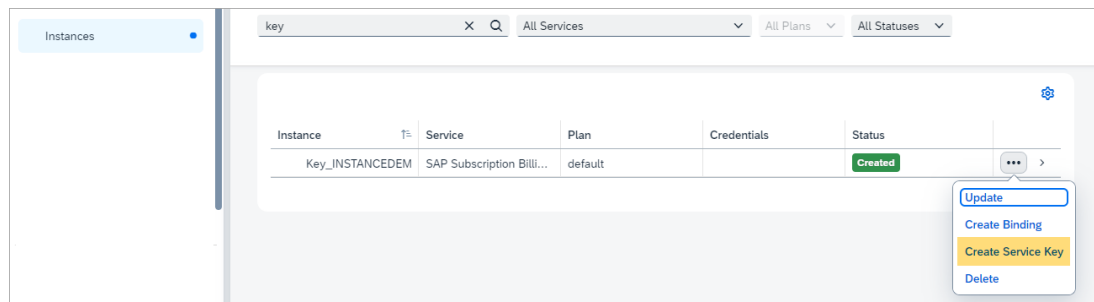
To work with APIs, technical users need a service key containing the relevant information to get an access token. One way of authenticating against the token server to retrieve the access token is by using the **client ID** and **client secret** from the service key.

Service keys enable access to APIs with the set of scopes defined in the service instance. If you need API access with different sets of scopes, please create separate instances for it.

The following steps explain how to create this type of service key.

Step	Task
------	------

1. In the *Instances* screen, display the action menu of the instance and choose *Create Service Key*.





Step	Task
------	------

2. In the *New Service Key* view, follow these steps:
  1. Enter a name under *Service Key Name*.  
In this example, we used "Key\_INSTANCEDEMO".
  2. Under *Service Key Type*, keep the selection *Client ID/Secret*.
  3. Select *Create*.

The screenshot shows the 'New Service Key' configuration form. It has a title bar 'New Service Key'. Below it is a text input field for 'Service Key Name:' with a red asterisk and a placeholder 'Enter a name up to 32 chars'. Below that is a section 'Configure Binding Parameters:' with an information icon. It contains two buttons: 'Form' (highlighted with a blue border) and 'JSON'. Below that is a dropdown menu for 'Service Key Type:' with an information icon, currently set to 'Client ID/Secret'. At the bottom right are 'Create' and 'Cancel' buttons.

3. To see the newly created service key, display its action menu and choose *View*.

Step	Task
------	------

4. The details of the service key are displayed.

The service key contains the information needed to generate an access token to access the APIs of SAP Subscription Billing.



For information on generating a token, see [Generate an Access Token](#) in the *API Guide*.

If you need more details, including explanations of the SAP BTP concepts, refer to the documentation [Getting Started with an Enterprise Account in the Cloud Foundry Environment](#), where you can use the interactive graphics to navigate to more information.

### 4.3.6 Create a Service Key with Client Certificate

To work with APIs, technical users need a service key containing the relevant information to get an access token. One way of authenticating against the token server to retrieve the access token is by using an **X.509 client certificate** from the service key.

#### → Recommendation

We recommend using the X.509 client certificate option for the integration with SAP S/4HANA Cloud.

Service keys enable access to APIs with the set of scopes defined in the service instance. If you need API access with different sets of scopes, please create separate instances for it.

The following steps explain how to create this type of service key.

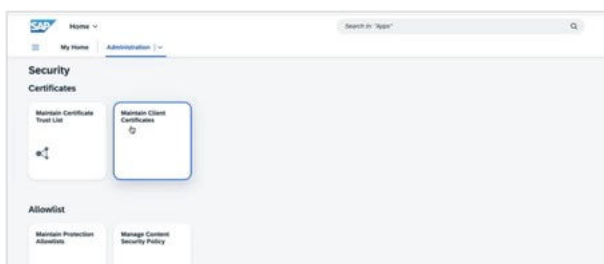
**Step**      **Task**

To create a service key, you need to bring an X.509 client certificate.

For API access from SAP S/4HANA Cloud (communication scenario `SAP_COM_0642`), we recommend using the Client Default certificate from the SAP S/4HANA Cloud tenant. For any other integration you bring your own external certificate.

The following steps 1-4 describe how the *Client Default* certificate can be exported from SAP S/4HANA Cloud.

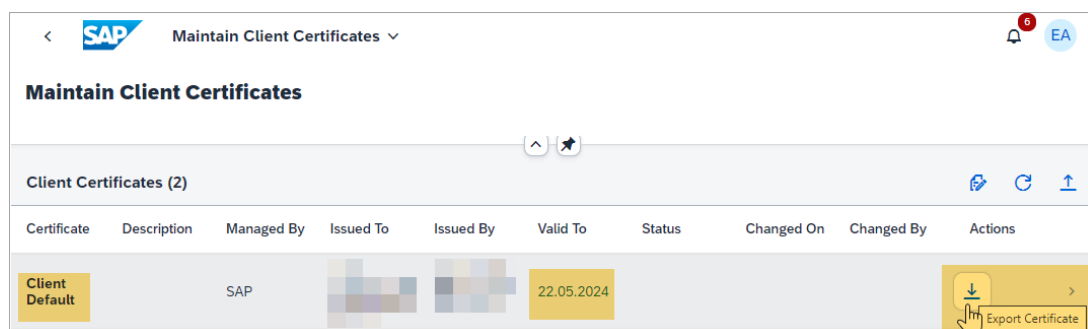
1. Log on to your SAP S/4HANA Cloud system with the Administrator role.
2. Go to the *Maintain Client Certificates* app.



3. In the *Actions* column, download the *Client Default* certificate to your local machine by selecting *Export Certificate*.

This certificate is provided by SAP for SAP S/4HANA Cloud tenants.

The validity of the certificate is displayed in the *Valid To* column.

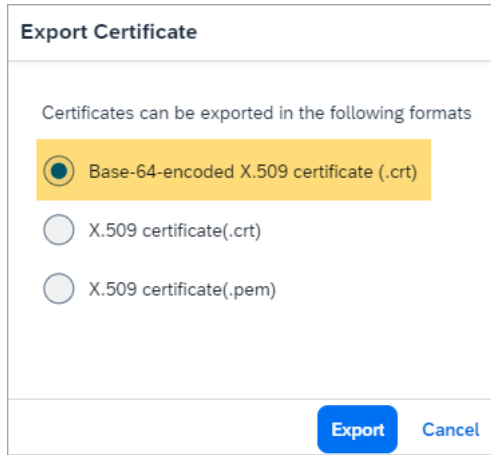


**Note**

Makes sure to renew the certificate before it expires and update the service key with a new certificate in case of a configuration update.

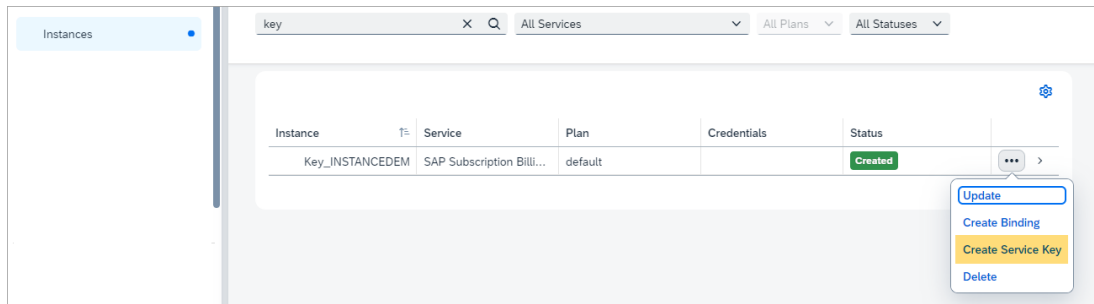
**Step**      **Task**

4. Export the *Base-64-encoded X.509 certificate (.crt)* and open the downloaded ".crt" file in a text editor.



The following steps describe the service key creation in the SAP BTP cockpit.

5. In the SAP BTP cockpit, on the *Instances* screen, display the action menu of the instance and choose *Create Service Key*.



6. Enter a name for the service key.

**Step**    **Task**

---

7. Under *Form*, select the Service Key Type *X.509 Certificate*.

The screenshot shows a 'New Service Key' configuration window. At the top, there is a title bar 'New Service Key'. Below it, the 'Service Key Name' field is required (marked with a red asterisk) and contains a placeholder text 'Enter a name up to 32 chars'. Underneath, the 'Configure Binding Parameters' section has an information icon and two tabs: 'Form' (which is selected and highlighted in blue) and 'JSON'. Below the tabs, the 'Service Key Type' dropdown menu is open, showing two options: 'Client ID/Secret' (the current selection) and 'X.509 Certificate' (highlighted in yellow). At the bottom right of the dialog, there are 'Create' and 'Cancel' buttons.

**Step**    **Task**

---

8. Paste the entire content of the .crt file you opened in the text editor into the *Certificate* field form.

New Service Key

---

Service Key Name: \*

Configure Binding Parameters: ⓘ

Form    JSON

Service Key Type: ⓘ

X.509 Certificate ▾

Credential Type:  

X.509 ▾

X.509:

Certificate: \* ⓘ

Certificate Pinning: ⓘ

false ▾

Create    Cancel

**Step**    **Task**

9. You can switch to the JSON tab in the view to check the format of the form.

New Service Key

Service Key Name: \*

Enter a name up to 32 chars

Configure Binding Parameters: ⓘ

Form    JSON

Upload a JSON file:

Select JSON file    Browse...

Or specify the parameters in JSON format:    Clear

```
1 {
2   "xsuaa": {
3     "credential-type": "x509",
4     "x509": {
5       "certificate": "",
6       "certificate-pinning": "false"
7     }
8   }
9 }
```

**⚠ Caution**

Don't make any manual changes to the JSON as this might invalidate the certificate and can lead to failures when creating the service key.

10. Select Create.

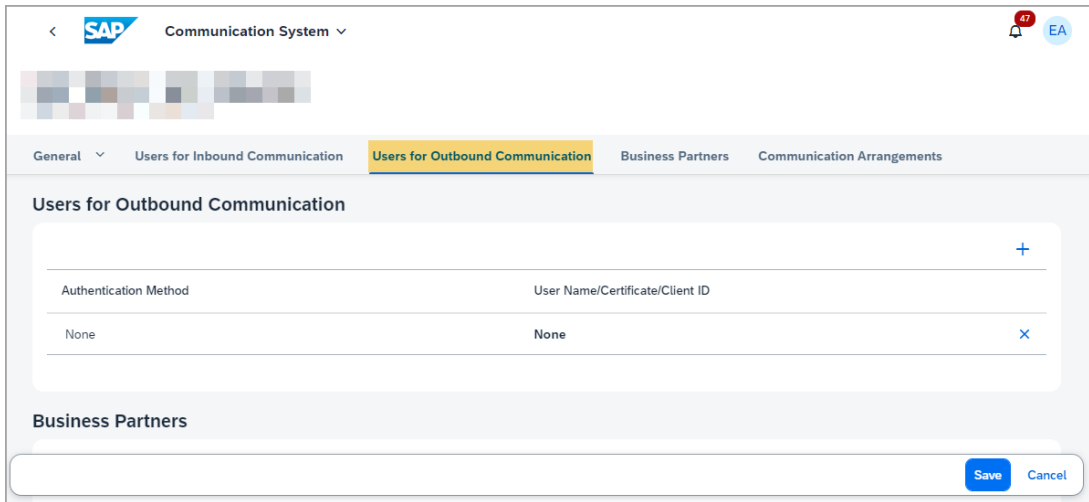
**📌 Note**

For a certain external certificate, you can only create one service key per service instance. If you try to create an additional service key, the creation fails.

The following steps are relevant in case you want to configure API access for the integration of SAP Subscription Billing with SAP S/4HANA Cloud using communication scenario SAP\_COM\_0642.

**Step**      **Task**

- Using the Administrator role, log on to your SAP S/4HANA Cloud system and go to the *Communication System* app.



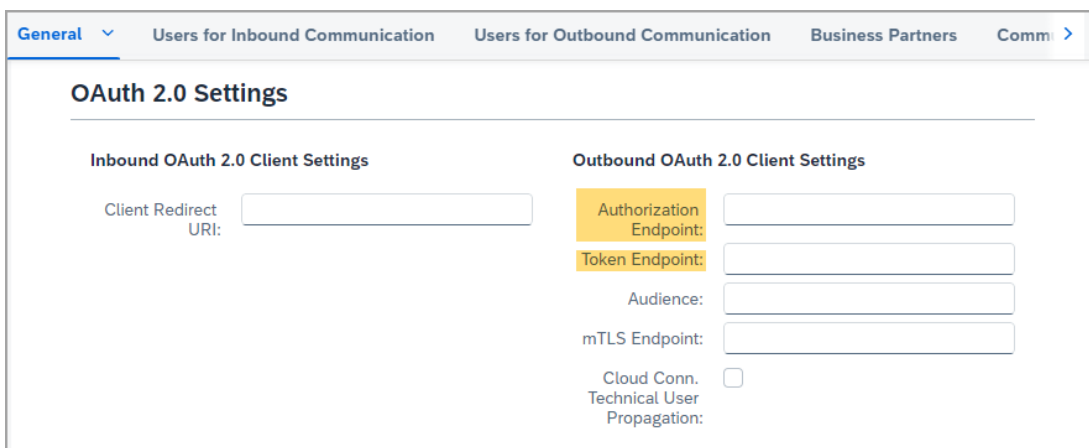
- Create a communication system as described under *Create Communication System for SAP Subscription Billing - API Integration* in the [Setup Instructions for Scope Item 57Z](#) or [Setup Instructions for Scope Item 51K](#).

In the *OAuth 2.0 Settings*, enter the URLs using these patterns:

- Authorization Endpoint*: `<certurl>/authorize`
- Token Endpoint*: `<certurl>/oauth/token`

→ **Tip**

You can find the `url` and `certurl` properties inside the `uaa` object in the service key that you created for the service SAP Subscription Billing (API Service). To enter the endpoints correctly, remove `https://` from the URL and add `/authorize` or `/oauth/token` at the end, as shown above.



If you need to create a communication arrangement, follow the procedure described under *Create Communication Arrangement for SAP Subscription Billing - API Integration (SAP\_COM\_0642)* in the [Setup Instructions for Scope Item 57Z](#) or [Setup Instructions for Scope Item 51K](#).



**Step**      **Task**

---

13. Create a new *Outbound User* for communication scenario *SAP Subscription Billing - API Integration* (SAP\_COM\_0642).

**New Outbound User**

Authentication Method: \* OAuth 2.0

OAuth 2.0 Client ID: \*

Client Authentication: \*  Basic  mTLS  JWT

Client Certificate: \*

[Upload New Certificate](#) [Create](#) [Cancel](#)

Make the following settings:

1. *Authentication Method*: **OAuth 2.0**
2. *OAuth 2.0 Client ID*: Copy the value from the service key you created earlier. You can view the service key in the SAP BTP cockpit or download it. You find the relevant value under `clientid`.

**Credentials**

test

Form      **JSON**

```
1 {
2   "url": ,
3   "uaa": {
4     "clientid": "sb-77c2778a-bce5-437c-b542-06375cd31676!b51444|revenue-cloud!b8509",
5   }
6 }
7
8
9
10
11
12
13
```

[Copy JSON](#) [Download](#) [Close](#)

3. *Client Authentication*: **mTLS**
  4. *Client Certificate*: **Client Default**
-

**New Outbound User**

Authentication Method: \* OAuth 2.0

OAuth 2.0 Client ID: \*

Client Authentication: \*  Basic  mTLS  JWT

Client Certificate: \* Client Default

Certificate Subject:

Certificate Issuer:

Upload New Certificate Download Certificate Create Cancel

14. Select *Create*.

## 4.4 Onboard Price Calculation

Onboard the **Price Calculation** service for SAP Subscription Billing to enable pricing with pricing schemes. We recommend that you do this after completing the onboarding of SAP Subscription Billing.

Please follow the steps in the [SAP BTP Configuration Guide for Price Calculation](#) to onboard the service. Note that the service subscription step may take a few minutes.

We recommend that you define pricing models using pricing schemes, as we only plan to add new features to this pricing configuration option.

## 4.5 Set Up SAP Event Broker for SAP Cloud Applications

Complete the setup described in this section if you are integrating SAP Subscription Billing with SAP S/4HANA Cloud Public Edition using scope item 57Z (*Subscription Management with Convergent Invoicing*) or 51K (*Subscription Management with Sales Billing*) and want to use SAP Event Broker for SAP cloud applications to distribute events.

In these SAP-to-SAP integrations, business events are used to replicate subscriptions and billing forecasts in SAP Subscription Billing as provider contracts and forecast billing plans respectively in SAP S/4HANA Cloud.

### Note

With SAP Event Broker for SAP cloud applications, the scenario is preconfigured and managed by SAP. With SAP Event Mesh, the scenario is configured in a customer-managed way, so you need to define the queue and event topics that are required for the integration, and register the queue in SAP S/4HANA Cloud.

Refer to the information on the SAP Discovery Center to decide which event distribution service to use:

- [SAP Event Broker for SAP cloud applications](#)
- [SAP Event Mesh](#)

The steps in this section guide you directly through the required setup of SAP Event Broker. If you want to learn more about the service, refer to the [SAP Event Broker Service Guide](#).

## 4.5.1 Add SAP Event Broker to a Subaccount

Add your entitlement for the standard application plan of SAP Event Broker for SAP cloud applications to either your SAP Subscription Billing subaccount or another subaccount.

### Prerequisite

You have Subaccount Administrator authorizations at a minimum.

### Procedure

Step	Task
1.	In the subaccount where you want to add your entitlement, choose <a href="#">Entitlements</a> in the navigation panel.
2.	To start, choose <a href="#">Configure Entitlements</a> .
3.	New choose <a href="#">Add Service Plans</a> .
4.	Under <a href="#">Entitlements</a> , search for <a href="#">Event Broker</a> , select the service, then select the <a href="#">standard (Application)</a> service plan.
5.	Confirm the change by choosing <a href="#">Add 1 Service Plan</a> .
6.	Assign the quota and choose <a href="#">Save</a> to finish.
7.	Verify that the application plan displays in the table of entitlements.

## 4.5.2 Subscribe to the SAP Event Broker Application

To enable access to the SAP Event Broker application, subscribe to the standard application plan. You'll use the application further on in the setup to enable preconfigured subscription content.

### Prerequisite

- You have Subaccount Administrator authorizations at a minimum.
- You have added your entitlement for SAP Event Broker for SAP cloud applications to a subaccount (see [Add SAP Event Broker to a Subaccount \[page 59\]](#)).

### Procedure

Step	Task
1.	In the subaccount in which you added SAP Event Broker, choose <i>Instances and Subscriptions</i> in the navigation panel.
2.	Choose <i>Create</i> .
3.	Scroll through the service list or type in <b>Event Broker</b> and select <i>SAP Event Broker for SAP cloud applications</i> and the <i>standard</i> application plan.
4.	Choose <i>Create</i> .  The subscription is activated and the <i>Go to Application</i> link becomes available in the subscription details.

**Note**  
To access the application, you need to apply roles to your user, which you do in the next activity.




## 4.5.3 Provide Authorization for the SAP Event Broker Application

You need to assign role-based permissions to each user who needs access to the SAP Event Broker application to enable preconfigured subscription content.

### Prerequisite

- You have Subaccount Administrator authorizations at a minimum.
- You have subscribed to the SAP Event Broker standard application plan (see [Subscribe to the SAP Event Broker Application \[page 60\]](#)).

### Procedure

Step	Task
1.	In the subaccount in which you added SAP Event Broker, choose  <a href="#">Security</a>  <a href="#">Users</a>  .
2.	Choose a user row.  The table opens a new column to the right and exposes the role details.
3.	Under <i>Role Collections</i> , choose <a href="#">Assign Role Collection</a> (if you're working on a small screen, you can find the option by choosing the three dots that represent the options menu).
4.	Choose the role collection <a href="#">Event Broker Integration Administrator</a> then choose <a href="#">Assign Role Collection</a> .
5.	Verify that the role collection appears in the list for the user.

### Results

Once role permissions are assigned to users, they can access the SAP Event Broker application using the link in the row for the subscribed application plan.

## 4.5.4 Register Your SAP S/4HANA Cloud System in Your Global Account

To connect an SAP S/4HANA Cloud system with a global account in SAP BTP, you need to register the system in the corresponding global account.

### Prerequisites

- For the steps in SAP BTP, you are an administrator of the global account where you want to register your SAP S/4HANA Cloud system.
- For the steps in SAP S/4HANA Cloud, you are an administrator of the SAP S/4HANA Cloud tenant.

### Context

The registration process is based on a registration token that is used for the pairing of the SAP S/4HANA Cloud system and the corresponding global account. You create the token in the global account, and then the tenant administrator of the respective SAP S/4HANA Cloud system uses the token to start the automated registration process on the SAP S/4HANA Cloud system side.

#### Note

- When registering SAP S/4HANA Cloud systems, you can have up to 1000 tokens per global account ready to be used. Tokens that are already used to register an SAP S/4HANA Cloud system are not included in this number.  
This means that you cannot have more than 1000 systems in the [Systems](#) list of type SAP S/4HANA Cloud with an empty status and generated token that is not used yet.
- You cannot migrate the registered SAP S/4HANA Cloud systems between global accounts. If you want to start using another global account, you will have to register your SAP S/4HANA Cloud systems again.
- When registering a system or creating a formation, the data you provide in the given input fields is not encrypted with your customer managed key. The data you enter is only encrypted at rest.

### Procedure

1. In the cockpit, navigate to your global account, and then choose ► [System Landscape](#) ► [Systems](#) 🗒.
2. On the [Systems](#) page, choose [Add System](#).
  - a. Enter a name for the system you want to register.

#### Note

Use only printable ASCII characters.

### → Tip

We recommend that you indicate the type of the system when specifying the system name. For example, `<mysystem>-S/4HANA-cloud`. This helps you identify the system type when assigning systems to a formation.

- b. In the *Type* dropdown list, select *SAP S/4HANA Cloud*.
- c. Choose *Add*.
- d. In the *Communication Scenario Groups* dropdown menu, select *Eventing Between SAP Cloud Systems*: to allow the automatic enablement of the `SAP_COM_0892` communication scenario in SAP S/4HANA Cloud.
- e. Choose *Get Token*.

The system generates the registration token.

- f. Copy the registration token and send it to the tenant administrator for the respective SAP S/4HANA Cloud system. You need it for configuring the integration on the extended SAP S/4HANA Cloud system side.

You can also get the registration token later, once the system appears in the list on the *Systems* page.

The registration token is valid for 7 days after it has been generated. When a token is not used within its validity period, it is no longer valid and cannot be used for registering an SAP S/4HANA Cloud system. If the validity of the token expires before you use it to configure the integration on the SAP S/4HANA Cloud system side and complete the registration, you need to get a new token. You can then copy it and use it to complete the registration.

### ⓘ Note

A registration token can be used only once, for registering a single SAP S/4HANA Cloud system.

- g. Close the wizard.

The SAP S/4HANA Cloud system appears in the list of systems on the *Systems* page. Its *Status* field is empty because the registration process is not yet completed.

3. Start the automated registration process on the SAP S/4HANA Cloud system side. To do so, proceed as described in as described below under *Trigger the Registration in the SAP S/4HANA Cloud Tenant*.

### ⓘ Note

You can register a system with the same name only once per global account. Once you have started a registration process for a system with a specified name you can no longer register a system with the same name and connect it with the same global account, unless you delete the corresponding extension in the *Maintain Extensions on SAP BTP* in the SAP S/4HANA Cloud tenant. If the registration process fails, you need to delete the failed extension from the SAP S/4HANA Cloud tenant and create a new integration token in the cockpit for the corresponding system to be able to start the automated registration process again.

4. Check the status of the registration process. To do so, in the cockpit navigate to your global account, and on the *Systems* page, check if the status of the SAP S/4HANA Cloud system has changed to *Registered*.

If you are already on the *Systems* page, refresh the page to check if the status has changed.

For information about registration statuses and about deregistering systems, refer to the general SAP BTP documentation [Registering an SAP S/4HANA Cloud System](#).

# Trigger the Registration in the SAP S/4HANA Cloud Tenant

Use this procedure to trigger the registration process for an SAP S/4HANA Cloud system that you want to pair with your global account in SAP BTP.

## Prerequisites

You are an SAP S/4HANA Cloud tenant administrator.

## Procedure

1. Log on to the SAP S/4HANA Cloud tenant, go to **Administration > Communication Management**, and then open the *Maintain Extensions on SAP BTP* app (or search for the app using the app search).
2. In the *Maintain Extensions on SAP BTP* app, choose *New*.
3. In the *Integration Token* field, enter the content of the registration token from the SAP BTP cockpit.
4. Choose *Save*. A new entry appears in the *Extensions* list with status *Enabling*.
5. After the integration has finished successfully, you can refresh the list.

The status of the integration should have changed to *Enabled*.

## Results

Your SAP S/4 HANA Cloud system is now registered in your SAP BTP global account.

## 4.5.5 Create Formations to Define the Event Sharing Context

When SAP Event Broker distributes events between SAP Subscription Billing and SAP S/4HANA Cloud, the data is handled in a secure manner. A formation enforces customer tenant data segregation, or the sharing context, for these applications when they are registered as SAP systems.

## Prerequisites

- You have Global Account Administrator or System Landscape Administrator authorizations.
- You have subscribed to the SAP Event Broker application (see [Subscribe to the SAP Event Broker Application \[page 60\]](#)).



- You have registered your SAP S/4HANA Cloud system in your global account (see [Register Your SAP S/4HANA Cloud System in Your Global Account \[page 62\]](#)).

## Procedure

Step	Task
1.	In your global account, navigate to <a href="#">System Landscape</a> .
2.	On the <a href="#">Formations</a> tab, choose <a href="#">Create Formation</a> .
3.	Follow the guided steps to enter all the required information for your formation: <ol style="list-style-type: none"> <li>Add any name that helps you identify your formation.</li> <li>In the <a href="#">Formation Type</a> dropdown menu, select <a href="#">Eventing Between SAP Cloud Systems</a>.</li> <li>In the <a href="#">Subaccount</a> dropdown menu, select the subaccount where SAP Event Broker is subscribed.</li> </ol>
	<div style="border: 1px solid #ccc; padding: 10px; background-color: #f9f9f9;"> <p><b>Note</b></p> <p>The subaccount where SAP Event Broker is subscribed can only be part of one formation in a global account.</p> <p>SAP systems can only be added to one formation of type <a href="#">Eventing Between SAP Cloud Systems</a> in a global account.</p> </div>
4.	Select the systems that you want to include in the formation.
5.	Review your selections and choose <a href="#">Create</a> to create the formation.

## Next Steps

You now need to configure communication in your SAP S/4HANA Cloud system. You can find a description of how to do this in the setup instructions for scope item 57Z (Subscription Management with Sales Billing) or 5IK (Subscription Management with Convergent Invoicing).

In your SAP S/4HANA Cloud system, you create communication arrangements based on the following communication scenarios:

- SAP\_COM\_0892** (SAP Event Broker for SAP Cloud Applications Integration)
- SAP\_COM\_0884** (SAP Subscription Billing - Event Consumption Integration)

Once you've done that configuration, continue in the current guide with the activity [Enable Event Subscriptions \[page 66\]](#).

## Removing a System from the Formation

If you want to remove an SAP system from a formation of type [Eventing Between SAP Cloud Systems](#), make sure that all active event subscriptions are disabled first in SAP Event Broker. You can check your subscriptions in the SAP Event Broker application on the [Subscriptions](#) page.

## 4.5.6 Enable Event Subscriptions

Event subscriptions identify the publishing application, the subscribing application, and the type of events that can flow between them. When the event subscription becomes active, the subscribing application immediately begins consuming events.

### Prerequisites

- You have Event Broker Integration Administrator authorizations.
- You have subscribed to the SAP Event Broker standard application plan (see [Subscribe to the SAP Event Broker Application \[page 60\]](#)).
- A formation of type *Eventing Between SAP Cloud Systems* was created and includes the subaccount where the SAP Event Broker application is subscribed (see [Create Formations to Define the Event Sharing Context \[page 64\]](#)).
- You have created communication arrangements based on the following communication scenarios in SAP S/4HANA Cloud:
  - **SAP\_COM\_0892** (SAP Event Broker for SAP Cloud Applications Integration)
  - **SAP\_COM\_0884** (SAP Subscription Billing - Event Consumption Integration)

### Procedure

Step	Task
1.	In the subaccount in which you added SAP Event Broker, choose <b>Services &gt; Instances and Subscriptions</b> in the navigation panel.
2.	In the <i>Subscriptions</i> table, choose the link next to SAP Event Broker.  The SAP Event Broker application displays.
3.	After signing in, choose <i>Subscriptions</i> .
4.	From the table of event subscriptions, choose the tab <i>All Available Subscriptions</i> and select the subscription <i>Replication of Subscriptions and Billing Forecasts from SAP Subscription Billing to SAP S/4HANA Cloud</i> .
	<div style="border: 1px solid #ccc; padding: 10px;"><p><b>Note</b></p><p>If you can't select the row because it's grayed out, then you have an overlapping event subscription enabled. Refer to the <i>Lifecycle</i> section of <a href="#">Event Subscriptions</a> in the SAP BTP documentation to see a list of situations when event subscriptions overlap.</p></div>
5.	Select the red status indicator to enable the event subscription.

## Results

The *Status* indicator turns green, which indicates that the event subscription is active. The event subscription also displays in the *My Subscriptions* tab. Subscribing applications begin consuming events immediately.

### Note

In some cases, you could experience a slight delay in connectivity while the subscriber associated with the event subscription is activated. Any delays are automatically resolved.

## 4.6 Set Up SAP Event Mesh

Complete these setup steps if you want to either implement a customer-defined process extension or if you are integrating SAP Subscription Billing with SAP S/4HANA Cloud Public Edition using scope item 57Z (*Subscription Management with Convergent Invoicing*) or 51K (*Subscription Management with Sales Billing*) and want to use SAP Event Mesh (instead of SAP Event Broker for SAP cloud applications) to distribute events.

Events are messages that can be sent to notify a consumer about life cycle changes to an object, such as creation, update, or a status change. For an overview of the different ways that event can be used with SAP Subscription Billing, see [Integration Using Events](#) in the *Integration Guide*.

### Note

You need to purchase a separate license to use the SAP Event Mesh service.

If you are integrating SAP Subscription Billing with SAP S/4HANA Cloud Public Edition, refer to the information on the SAP Discovery Center to decide which event distribution service to use:

- [SAP Event Broker for SAP cloud applications](#)
- [SAP Event Mesh](#)

With SAP Event Broker for SAP cloud applications, the scenario is preconfigured and managed by SAP. With SAP Event Mesh, the scenario is configured in a customer-managed way, so you need to define the queue and event topics that are required for the integration, and register the queue in SAP S/4HANA Cloud.

### Caution

During setup:

- Entitlements to the SAP Event Mesh service must be provisioned in the same SAP BTP global account as SAP Subscription Billing.
- The SAP Event Mesh instance must be created in the same subaccount in which you subscribed to SAP Subscription Billing.

For more information, see [Initial Setup](#) in the SAP Event Mesh documentation.

## 4.6.1 Assign an Event Mesh Entitlement

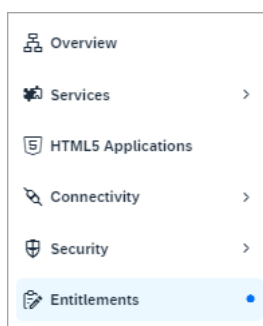
You need to assign entitlement quotas to your subaccount.

### ⚠ Caution

Entitlements to the SAP Event Mesh service must be provisioned in the same SAP BTP global account as SAP Subscription Billing.

Step	Task
------	------

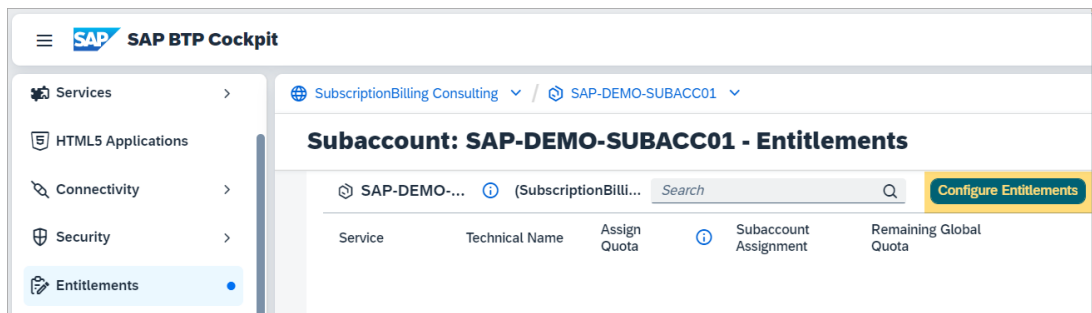
1. In your subaccount, choose *Entitlements* in the navigation panel.



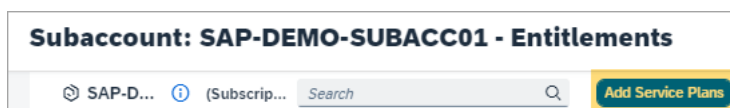
### 📘 Note

You must use the same subaccount as the one in which you subscribed to SAP Subscription Billing.

2. To start, select *Configure Entitlements*.



3. Now select *Add Service Plans*.



**Step**      **Task**

4. Search for *Event Mesh*, choose the service, and enable the service plan *default*.

The screenshot displays the SAP BTP cockpit interface. On the left, the 'Entitlements' panel shows a search for 'Event Mesh' and a list of available plans. The 'Service Details: Event Mesh' panel on the right shows the 'default' plan selected. The 'Available Plans' section lists 'default' (checked) and 'standard (Application)'. The 'default' plan is highlighted in yellow. Below the plans, there is a summary bar indicating '1 selected plan' and 'Services: Event Mesh (1 plan)'. At the bottom right, there are buttons for 'Add 1 Service Plan' and 'Cancel'.

→ Tip

If you don't see this entitlement in the list, then either you still need to purchase a license, or all the purchased entitlements are used up.

5. Confirm the change by selecting *Add 1 Service Plan*.

6. Assign the quota and select *Save* to finish.

## 4.6.2 Create an Event Mesh Instance

→ Tip

For the consumption of events, the prices set in the SAP Event Mesh price list apply.

You can create a new Event Mesh instance by using the SAP BTP cockpit or by using the Cloud Foundry Command Line Interface. In this section, we provide instructions for the SAP BTP cockpit.

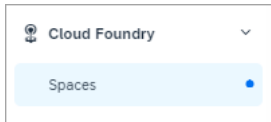
ⓘ Note

Entitlements to the SAP Event Mesh service must have been provisioned in the same SAP BTP global account as SAP Subscription Billing (in [Assign an Event Mesh Entitlement \[page 68\]](#)).

**Step**    **Task**

---

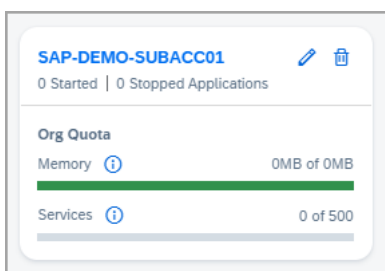
1. In your subaccount, choose ► *Cloud Foundry* ► *Spaces* ► in the navigation panel.



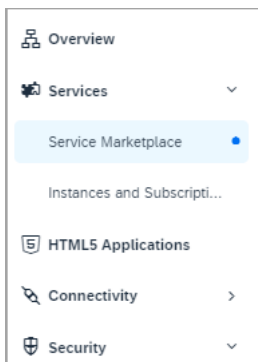
**⚠ Caution**

You must use the same subaccount as the one in which you subscribed to SAP Subscription Billing.

2. Open the space in which you want to create a service instance.



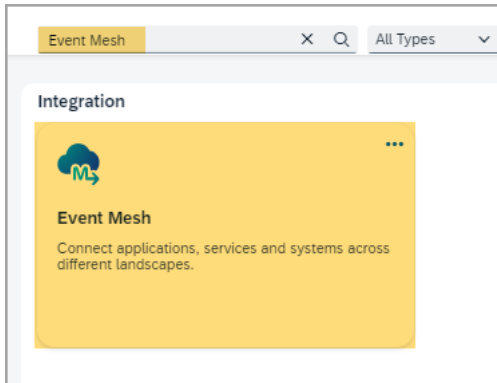
3. Choose ► *Services* ► *Service Marketplace* ► in the navigation panel.



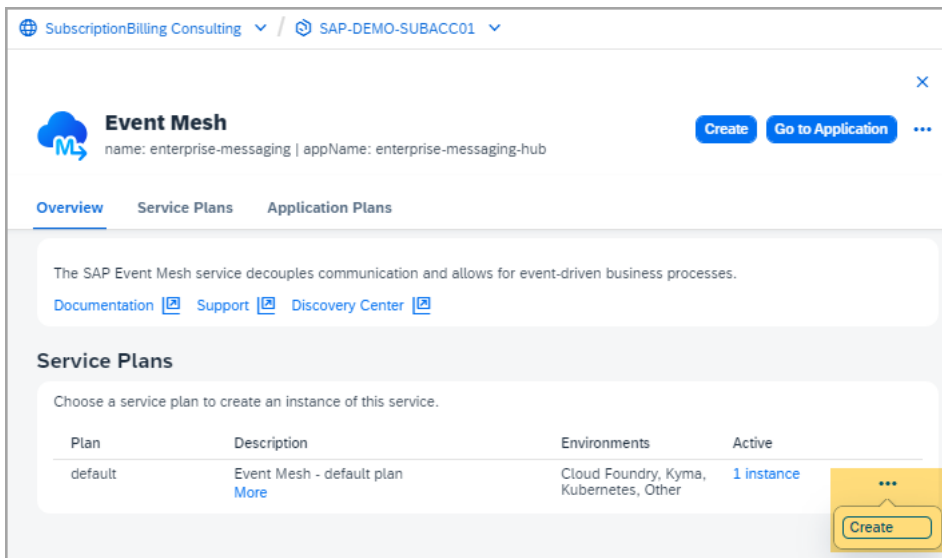
**Step**      **Task**

---

4. You see all the services that are available to you.  
Search for and select the service *Event Mesh*.



5. Under *Service Plans*, display the action menu of the plan for which you want to create an instance and select *Create*.



**Note**

Your user must be a member of the space and have the role *Space Developer* assigned. If not, you won't see the button *Create*.

**Step**    **Task**

---

6. Name the instance and select *Next*.

The screenshot shows a wizard titled "New Instance or Subscription" with three steps: 1. Basic Info, 2. Parameters, and 3. Review. Step 1 is active. The form contains the following fields:

- Service:** A dropdown menu with "Event Mesh" selected. A link "Can't find what you're looking for?" is visible to the right.
- Plan:** A dropdown menu with "default" selected.
- Runtime Environment:** A dropdown menu with "Other" selected.
- Instance Name:** A text input field containing "DEMOSUBACC01".

At the bottom of the form, there are three buttons: "Next >" (highlighted in yellow), "Create", and "Cancel".

→ **Tip**

In this guide, we use "DEMOSUBACC01" as the example name for the instance.



Step	Task
------	------

- |    |  |
|----|--|
| 7. | Upload a JSON file or specify the parameters in JSON format. |
|----|--|

```
{
  "emname": "<yourmessageclientname>",
  "namespace":
  "<yourorgname>/<yourmessageclientname>/<uniqueID>",
  "version": "1.1.0",
  "options": {
    "management": true,
    "messagingrest": true,
    "messaging": true
  },
  "rules": {
    "queueRules": {
      "publishFilter": [
        "${namespace}/*"
      ],
      "subscribeFilter": [
        "${namespace}/*"
      ]
    },
    "topicRules": {
      "publishFilter": [
        "${namespace}/*"
      ],
      "subscribeFilter": [
        "sap/billing/sb/*"
      ]
    }
  }
}
```

```
{
  "emname": "<yourmessageclientname>",
  "namespace": "<yourorgname>/<yourmessageclientname>/<uniqueID>",
  "version": "1.1.0",
  "options": {
    "management": true,
    "messagingrest": true,
    "messaging": true
  },
  "rules": {
    "queueRules": {
      "publishFilter": [
        "${namespace}/*"
      ],
      "subscribeFilter": [
        "${namespace}/*"
      ]
    },
    "topicRules": {
      "publishFilter": [
        "${namespace}/*"
      ],
      "subscribeFilter": [
        "sap/billing/sb/*"
      ]
    }
  }
}
```

Provide the parameters for which the placeholders are highlighted in yellow: name of message client, namespace, and connection rules for the message client.

Step	Task
------	------

→ Tip

The namespace must contain alphanumeric characters with 3 segments (a/b/c) and have a maximum length of 24 characters. Don't use the term "sap" in your namespace because it's reserved for SAP applications.

For more information, see [Syntax for Service Descriptor](#) in the SAP Event Mesh documentation.

To receive events from SAP Subscription Billing, you must define a `subscribeFilter` rule as highlighted in green in the service description. With this configuration, you specifically subscribe to the topics for SAP Subscription Billing.

- |     |  |
|-----|--|
| 8.  | After providing the parameters, select <i>Next</i> .   |
| 9.  | Check that everything is correct and select <i>Create</i> .  |
| 10. | The creation process starts. Select <i>View Instance</i> to switch to the <i>Instances</i> screen. |
| 11. | Your instance is created.  |

After you have set up the *Event Mesh* instance, you can create service keys as described in the section [Assign an Event Mesh Entitlement \[page 68\]](#) in this guide.

### 4.6.3 Prepare Access to the SAP Event Mesh Application

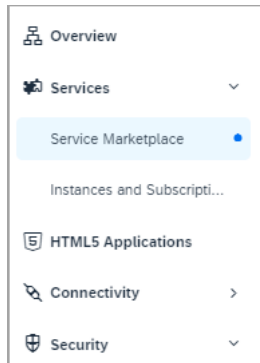
SAP Event Mesh is a software as a service (SaaS) application that allows your authorized business users to manage queues and webhooks. It also allows them to view the connection rules and service descriptor that you provided when you created a service instance. For more information, see [Using Event Mesh](#) in the SAP Event Mesh documentation.

→ Tip

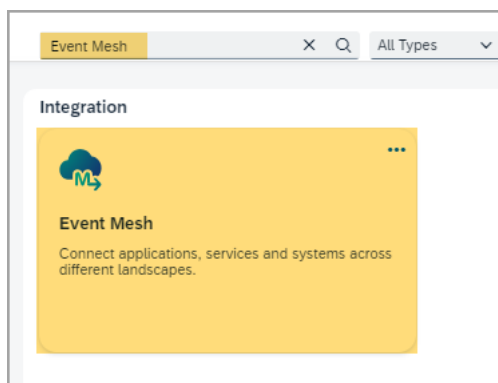
Only a security administrator of the subaccount can perform the steps in this section. For detailed information on defining your security administrators, see the section [Define Security Administrators in Your Subaccount \[page 23\]](#) in this guide.

Step	Task
------	------

1. Subscribe to the Event Mesh application:  
Go to the subaccount in which you subscribed to SAP Event Mesh and SAP Subscription Billing. Choose **Services** > **Service Marketplace** in the navigation panel.



2. You see all the services that are available to you.  
Search for and select the service Event Mesh.



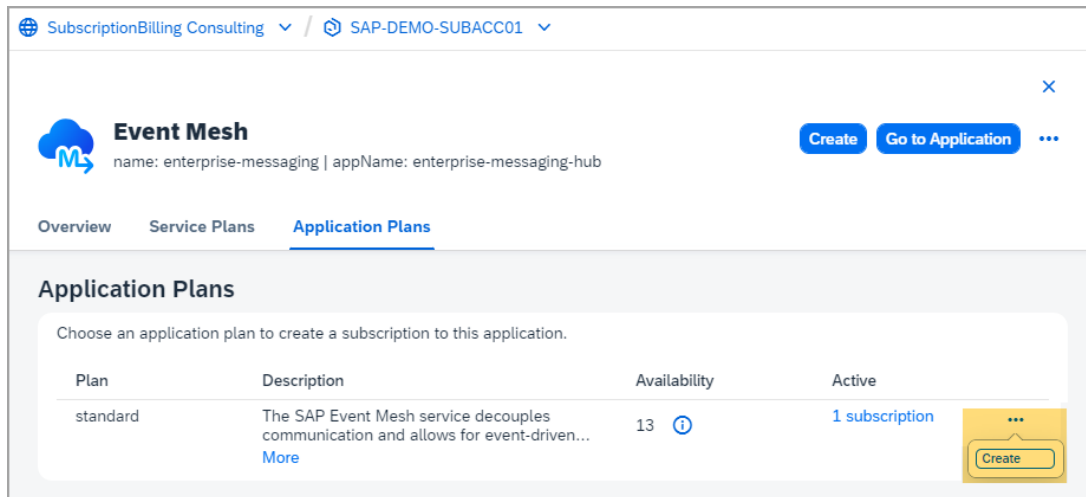
3. Under *Application Plans*, display the action menu of the plan for which you want to create a subscription and select Create.

#### Note

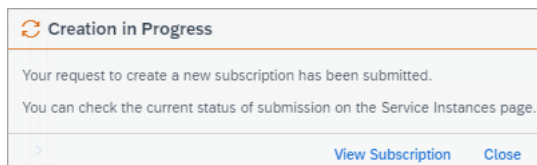
In this guide, we use the standard plan for the example.

**Step**      **Task**

4. Check the basic info and then select *Create*.



5. The creation process starts. Select *View Subscription* to switch to the *Instances and Subscriptions* screen.

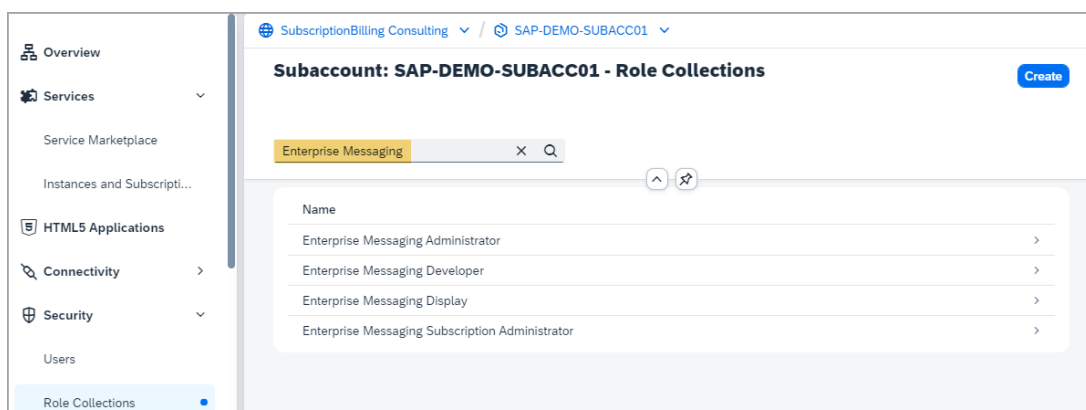


6. You're subscribed to the Event Mesh application.

7. Now give your users access to the application:

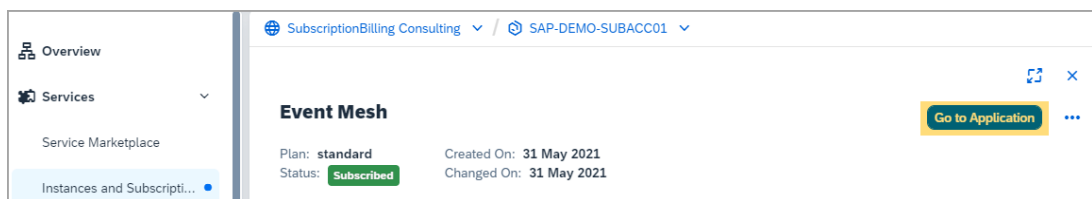
In your subaccount, choose **Security** > **Role Collections** in the navigation panel. Then filter by "Enterprise Messaging" (former name of Event Mesh).

You see the standard role collections for Event Mesh.



For details on the Event Mesh roles, see [Assign Roles to Users](#) in the SAP Event Mesh documentation.

- | Step | Task  |
|------|---|
| 8.   | Assign your users to the standard role collections according to the necessary authorizations.<br>For example, assign administrators to the collection "Enterprise Messaging Administrator".   |
| 9.   | Follow the steps described in <a href="#">Assign Role Collections to Users or User Groups [page 39]</a> .<br>If the standard collections are not sufficient, you can also create your own role collections for Event Mesh. See <a href="#">Build Role Collections [page 34]</a> for instructions. |
| 10.  | To access the application, return to the overview of your subaccount and choose <b>Services</b> > <b>Instances and Subscriptions</b> . In the list of subscriptions, select the <i>Go to Application</i> icon of Event Mesh.  |



### Note

Only the business users that you authorized in the previous step can access the application.

- |     |   |
|-----|---|
| 11. | The SAP Event Mesh application displays.<br>You will see a tile for each <i>Event Mesh</i> instance of plan <i>DEFAULT</i> from your subaccount.<br>To continue, select the tile for your messaging client. |
|-----|---|

You will see the settings for this messaging client. You can then define queues or webhook subscriptions and display further details.



You need a webhook subscription if you want to receive the events via a push mechanism. The Event Mesh service calls your registered endpoint (webhook URL) via a HTTP post request with the event payload.

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