SAP Cloud Platform Portal - Neo

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Working with Backend Apps

This section contains information about working with back-end apps based on classic UI technologies such as SAP GUI for HTML and Web Dynpro ABAP.

Related Information

Configure SAP GUI for HTML and Web Dynpro ABAP Apps
Configure In-Place Navigation for Classic UIs
Set Up an Internal Access Point Landscape
Set Up an External Access Point Landscape
Configure an SAP Easy Access Menu

Configure SAP GUI for HTML and Web Dynpro ABAP Apps

Administrators can create new or configure existing SAP GUI for HTML or Web Dynpro ABAP apps in the SAP Fiori launchpad configuration cockpit.

Prerequisites

- Your back-end system is configured with version `SAP_UI 751` and above, and the backend service `sui_tm_mm_rest` is available and can be accessed.
- You have configured a **subaccount level** HTTP destination in the SAP Cloud Platform cockpit to enable administrators, at design time, to select SAP GUI for HTML and Web Dynpro ABAP apps from a back-end system. For more information, see **Create HTTP Destinations**.

  You have configured the following destination properties as described in the table:

Property	Value
Name	The destination name **must be identical** to the System Alias property defined for the app in the Manage App Configuration editor of the launchpad configuration cockpit.
Type	HTTP
URL	URL and port number of the back-end system. iNote Should start with `https://`
Proxy Type	Select Internet or OnPremise, according to the connectivity to your back-end system.
Authentication	Select your authentication method. For more information, see Create HTTP Destinations.
Usage (Additional Property)	The string `Backend`. iNote Click the New Property button to add a property. In the dropdown list, type the string `Usage` and in the value field type the string `Backend`.
WebIDEEnabled (Additional Property)	TRUE iNote Click the New Property button to add a property. In the dropdown list, type the string `WebIDEEnabled` and in the value field type the string `TRUE`.
sap-client (Additional Property)	Optional property. The client number as defined in your back-end system. iNote Click the New Property button to add an additional property. Select sap-client from the dropdown list, and enter the client number as the value.

Context

What is the workflow?

You can create SAP GUI for HTML or Web Dynpro ABAP apps from scratch. You can also search for them in an ABAP back-end system. In this case, the values of the app you select are populated in the editor fields and you can edit if necessary.

Creating an app from scratch:

1. In the launchpad configuration cockpit, in the Apps editor, in the App Type field, select SAP GUI or Web Dynpro ABAP.
2. Enter the rest of the properties manually as follows:

SAP GUI for HTML

Property	Description
Transaction ID	SAP transaction code
System Alias	The name **must be identical** to the name of the destination in the SAP Cloud Platform cockpit, which is connected to the back-end system.
SAP Business URI	Path to the SAP NetWeaver Business Client used to run the app (together with transaction ID) For example, URI pattern for SAP GUI is: `/ui2/nwbc/~canvas;window=app/transaction/<transactionID>`

Web Dynpro ABAP

Property	Description
Application ID	Web Dynpro ABAP application ID. This ID can be obtained, for example, from transaction `SICF` at `/default_host/sap/bc/webdynpro/sap/`
Configuration ID	Identifier that runs with the Web Dynpro application ID
System Alias	The name **must be identical** to the name of the destination in the SAP Cloud Platform cockpit, which is connected to the back-end system.
SAP Business Client URI	Path to SAP NetWeaver Business Client that is used to run the app (together with application ID) For example, URI pattern for a Web Dynpro ABAP application is: `/ui2/nwbc/~canvas;window=app/WDA/<applicationID>`

Configuring an app from an existing ABAP back-end system:

1. In the launchpad configuration cockpit, in the Apps editor, next to the App Name field, click *(Browse)* .
2. In the Select App Resource dialog box, select Backend Systems.

3. Select a back-end system to view all its technical catalogs.

   > **Note**
   >
   > Technical catalogs contain references to SAP GUI transactions and Web Dynpro ABAP applications that are located in a back-end system. These catalogs are created with the mass maintenance tool in the back-end system.

4. Select a catalog to display all the SAP GUI for HTML and Web Dynpro ABAP applications in the technical catalog.
5. Select an app. All the properties of the selected app are automatically populated in the application property fields.

Using Screen Personas

You can configure the app to use SAP Screen Personas, so that the app is launched with a specific flavor. In the **Properties** tab, under the **Attributes** section, enter the value of the desired flavor in the **Screen Personas** field.

For more information, see SAP Screen Personas.

Configure In-Place Navigation for Classic UIs

Administrators can enable classic UIs such as Web Dynpro ABAP and SAP GUI apps to launch in place instead of in a new window.

Background

In the portal (launchpad and freestyle sites), classic UIs such as SAP GUI and SAP Web Dynpro ABAP apps open by default in a new tab. However, you may want to open these apps in place for the following reasons:

- **Performance**

  Each time an app opens in a new tab, the entire content of a site is reloaded and this has an impact on performance.

- **Usability**

  Users may have multiple windows open in parallel, which can make navigation more complicated.

You can configure these classic UIs to open in place in your site as described in the procedure below.

Procedure

1. For Web Dynpro ABAP applications, ensure that the back-end ABAP system is upgraded according to SAP Note 2574306.
2. In SAP Fiori Launchpad Designer, create a target mapping using the values as described in this topic: Setting Parameters in a Target Mapping.
3. In **Site Settings**, under **System Settings**, turn on the following options:
   - **Launch SAP GUI apps in place**
   - **Launch WDA apps in place**

Result: By default, your Web Dynpro ABAP or SAP GUI app opens in place.

> **Note**
>
> When users navigate to Web Dynpro ABAP or SAP GUI applications through links in notifications, in the Me Area, or via intent-based navigation triggered by Web Dynpro ABAP, the target application always opens in a new browser window or tab.

Set Up an Internal Access Point Landscape

An administrator can set up an internal access point landscape to prevent sensitive OData requests to the back-end system, from being routed to the cloud.

Prerequisites

- SAP Fiori launchpad must be running from a custom domain. For more information, see Configure a Custom Domain for the Default Site.
- You are using a reverse proxy, such as SAP Web Dispatcher.
- Your back-end system is configured with the same IdP (identity provider) as the SAP Cloud Platform subaccount.

Context

You set up an internal access point landscape by using a reverse proxy to map OData requests to the company back-end system. The rest of the requests are mapped to the SAP Fiori Launchpad running on SAP Cloud Platform. In this way, end users can work with the launchpad on SAP Cloud Platform without exposing sensitive company data in the cloud.

Procedure

1. In the **Site Settings**, under **System Settings**, for the **Access Type** select **Internal**, and save and publish.
2. Configure the following headers in the reverse proxy for requests routed to the launchpad:

Header	Value
`X-Custom-Host`	The custom domain of the launchpad.

Header	Value
`HOST`	The URL (without HTTPS and port) of the reverse proxy. iNote The reverse proxy must be HTTPS and needs to be configured on the default SSL port – 443.

3. Apply the following SAP Notes to the back-end system: 1977537 and 2193513.

Set Up an External Access Point Landscape

When setting up an external access point landscape, administrators must also define how to handle external access to classic UIs: SAP GUI and Web Dynpro ABAP (WDA) apps.

To set up an external access point, in the **Site Settings** screen, for the **Access Type** select **External**.

Then, from the **Access Classic UIs** list, select one of the the following options:

Option	Result
Yes, and show in launchpad	The apps are displayed in the launchpad, and your end users can access them. This means that the apps function outside the corporate network.
No, but show in launchpad	The apps are displayed in the launchpad, but your end users will not be able to access them.
No, and do not show in launchpad	By default, the apps are not displayed in the launchpad. In this configuration, you can ping the backend to check whether it can be accessed, as described below this table. If the backend can be accessed, the apps are displayed in the launchpad and your end users can access them. If the backend cannot be accessed, the apps are not displayed.

Configuring a Ping to the Backend

You need to configure CORS and configure a destination to ping the backend.

Configure CORS

To be able to ping the BE\`'internal host'` directly from the browser, the BE\`'internal host'` must return a header that indicates that access from the current origin is allowed.

For example, if the launchpad URL is: `https://flpflp-acc1.com/site?id=1`, the header should be: [Access-Control-Allow-Origin: `https://flpflp-acc1.com`,] or alternatively: [Access-Control-Allow-Origin:*] meaning that all origins are allowed.

Configure a Destination

In the SAP Cloud Platform cockpit, open the **Destinations** screen for your subaccount, and configure a destination with the following properties:

Property	Value	Description
`Name`	Enter a name for the destination (for example, `ping_launchpad`)	
`pingFlag` (Additional Property)	1	Marks the destination as a configuration for filtering SAP GUI/WDA apps.
`pingTimeOut` (Additional Property)	Default value: 2000 ms.	Defines the timeout (in milliseconds) that will be used for the ping request. After this period of time, the request will fail and will determine that the pinged host cannot be reached.
`pingPathName` (Additional Property)	• If `pingPathName` is empty: Ping to: `<DESTINATION_URL>/sap/bc/ping` • If the `pingPathName` is relative (starts with '/') Ping to: `<DESTINATION_URL>/pingPathName` • If the `pingPathName` is absolute (full URL) Ping to: `pingPathName`	The URL to ping. In the Destination URL, write a path to the server, for example `https://myserver.com`. If the `pingPathName` is `/my-app/api/ping`, then the final request will ping to: `https://myserver.com/my-app/api/ping`

Configure an SAP Easy Access Menu

Administrators can add the SAP Easy Access menu to the app finder. This menu displays the **SAP Menu** and **User Menu** tabs, which enable launchpad users to access SAP GUI and Web Dynpro ABAP applications.

Prerequisites

SAP Gateway Configuration

You have established connections to back-end systems:

1. Create or select a system alias for each back-end system to which you want to connect.

   In Customizing, choose **SAP NetWeaver** **Gateway** **OData Channel** **Configuration** **Connection Settings** **Connection SAP NetWeaver** **SAP NetWeaver Gateway to SAP System** and launch the IMG activity **Manage SAP System Aliases**.

2. (Optional) Map the connections. This step reduces the maintenance effort if you have several system aliases pointing to the same physical source system.
3. Create RFC and HTTP connections pointing to the system alias:
    a. In Customizing, choose SAP NetWeaver Gateway OData Channel Connection Settings SAP NetWeaver Gateway to SAP System and launch the IMG activity Manage RFC Destinations or directly launch transaction SM59.
    b. For each system alias identified in step 1, create two RFC connections:
        - ABAP connection (type 3):

          This connection type is used to extract SAP Easy Access menu entries from the back-end server to the front-end server.

          Use the following naming convention: `<Logical System Alias>_RFC`
        - HTTP(S) connection (type H):

          This connection type is used during the launchpad runtime to start the Web Dynpro applications and SAP GUI transactions from the launchpad.

          Use the following naming convention: `<Logical System Alias>_HTTP` or `<Logical System Alias>_HTTPS`

          iNote

          We recommend to use an HTTPS connection.

You have activated OData services:

1. In Customizing, choose SAP NetWeaver Gateway OData Channel Administration General Settings Activate and Maintain Services and activate the following OData services:

`/UI2/EASY_ACCESS_MENU`	Retrieves the menu entries of the SAP menu.
`/UI2/USER_MENU`	Retrieves the menu entries of the user menu.

2. To add a service, choose the Add Service icon.
3. Select the system alias of the back-end system (see step 1), then select a service from the table above.

   For information about activating OData services, see the SAP Gateway Developer Guide at http://help.sap.com/netweaver SAP NetWeaver Gateway Development Information Next SAP NetWeaver Gateway Developer Guide OData Channel Basic Features Service LifeCycle Activate and Maintain Services.

You have made sure that the user has the right authorizations for the SAP Easy Access menu OData services.

SAP Cloud Platform Cockpit Configuration

- You have added and configured an Easy Access Menu destination (`EASY_ACCESS_MENU`) in the SAP Cloud Platform cockpit.
- You have an SAP Cloud Platform cloud connector configured to access your back-end system from your customer cloud subaccount.

SAP Fiori Launchpad Configuration Cockpit

In the Site Settings screen, under User Settings, you have set SAP Easy Access Menu to YES.

Configuring an SAP GUI App

Procedure

1. Start the SAP Fiori launchpad configuration cockpit.
2. Configure a new app with the following properties:

Field	Description
App Title	Enter a title, for example `BE1 Client 100`. The title that you enter in this field will be displayed to end users when they select a system from which they can then select SAP User Access menu entries. iTip We recommend that you use the same title as in the target mapping for Web Dynpro applications that you create for the same back-end system. In case both target mappings are specified, the title in the `Shell-startGUI` target mapping will be preferred over the title in the `Shell-startWDA` target mapping. The title in the Shell-startGUI target mapping will be preferred over the title in the Shell-startWDA target mapping, in case both the target mappings are specified
Semantic Object	`Shell`
Action	`startGUI`
App Type	`SAP GUI`
Transaction Code	This field **must** be empty.
System Alias	This field **must** be empty.
Device Types	In the Visualization tab, make sure that only Desktop is selected.

Field	Description
Parameters	Enter the parameters as described in the Parameters table.
Allow additional user-defined parameters	Make sure that this option is not selected.

3. Enter the following parameters:

Parameters

Name	Target Name	Mandatory	Value	Regular Expression	Default Value
`sap-system`	Empty	Active	Enter the system alias as defined in SAP Gateway customizing (SAP NetWeaver Gateway OData Channel Configuration Connection Settings Connection SAP NetWeaver SAP NetWeaver Gateway to SAP System Manage SAP System Aliases). Example: `BE1CLNT100` **Note** Make sure that in your SAP Cloud Platform subaccount you configure a destination to your SAP back-end system, and that the destination name is equivalent to the system alias name in the SAP Gateway system.	Inactive	Empty
`sap-ui2-tcode`	Empty	Active	`.*` Enter it exactly like this (a dot followed by a star).	Active	Empty

4. Complete the configuration of the app, by adding it to one or more catalogs, configuring roles, and so on.

Configuring a Web Dynpro ABAP App

Procedure

1. Start the SAP Fiori launchpad configuration cockpit.
2. Configure a new app with the following properties:

Field	Description
App Title	Enter a title, for example `BE1 Client 100`. The title that you enter in this field will be displayed to end users when they select a system from which they can then select SAP User Access menu entries. **Tip** We recommend that you use the same title as in the target mapping for transactions that you create for the same back-end system. In case both target mappings are specified, the title in the `Shell-startGUI` target mapping will be preferred over the title in the `Shell-startWDA` target mapping.
Semantic Object	`Shell`
Action	`startWDA`
App Type	`Web Dynpro ABAP`
Application ID	This field **must** be empty.
Configuration ID	This field **must** be empty.
System Alias	This field **must** be empty.
Device Types	In the Visualization tab, make sure that only Desktop is selected.
Parameters	Enter the parameters as described in the Parameters table.
Allow additional user-defined parameters	Make sure that this option is selected.

3. Enter the following parameters:

Parameters

Name	Target Name	Mandatory	Value	Regular Expression	Default Value

Name	Target Name	Mandatory	Value	Regular Expression	Default Value
`sap-system`	Empty	Active	Enter the system alias as defined in SAP Gateway customizing (SAP NetWeaver Gateway OData Channel Configuration Connection Settings Connection SAP NetWeaver SAP NetWeaver Gateway to SAP System Manage SAP System Aliases). Example: `BE1CLNT100` **iNote** Make sure that in your SAP Cloud Platform subaccount you configure a destination to your SAP back-end system, and that the destination name is equivalent to the system alias name in the SAP Gateway system.	Inactive	Empty
`sap-ui2-wd-app-id`	Empty	Active	`.*` Enter it exactly like this (a dot followed by a star).	Active	Empty

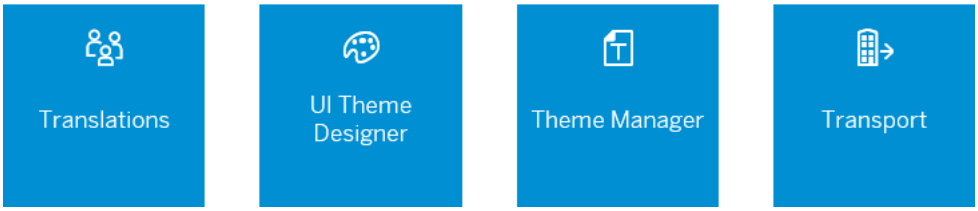
4. Complete the configuration of the app, by adding it to one or more catalogs, configuring roles, and so on.

Site Services

The SAP Cloud Platform Portal service, provides a variety of services for site administrators.

What services do you need?

Hover over each shape for more information, click for more details:



Managing Translations

Administrators can download texts and assets for translation purposes, and thus offer a site in various languages.

Related Information

Translating Texts of Launchpad Sites
Translating Texts and Assets of Freestyle Sites
Maintaining Available Translations
Which Language is Displayed to the User?

Translating Texts of Launchpad Sites

Administrators use the Languages application to download translatable texts, and then to upload the translated texts.

Context

In the Languages application, you download a translations ZIP file that contains the texts in the master language, which is the source language from which your texts are translated to all other languages. Then, the translation agency translates the source texts into one or more target languages. You compress the translated files into a single ZIP file, and use the Languages application to upload the ZIP file back to the system.

iNote

An uploaded ZIP file can contain translations for only one site.

Procedure

1. In the configuration cockpit, in the side menu, select Services and Tools.
2. Click the Translations tile.

   The Languages application opens.
3. Choose Download to download a `master_language_YYYY_MM_DD.zip` file that contains the master language texts, and a `readme.txt` file that describes the translation process.

4. From the ZIP file, extract the source file that contains the master language texts: `<SiteID>.properties`.

   For example: `4c736e0c-a094-46f1-9ae5-a602eb23b2b9.properties`

   The content of the source file is in the following format: `<key> = <value>`, where:

   - `<key>` is the property key. Do not change this.
   - `<value>` is the string to translate.

5. For each target language, perform the following steps:

   a. Save a copy of the source file, using the following naming convention:

   `<SiteId>_<Language>-<Country>.properties`

   or

   `<SiteId>_<Language>.properties`

   where:

   `<Language>` is according to the ISO 639 convention.

   `<Country>` is according to the ISO 3166 convention.

   For example:

   `4c736e0c-a094-46f1-9ae5-a602eb23b2b9_en-US.properties`

   `4c736e0c-a094-46f1-9ae5-a602eb23b2b9_en.properties`

   b. The translation agency translates all the property values to the corresponding language.

   Non-translated properties will display the strings of the source language.

6. Compress all the translated files into a new ZIP file. You can use any name for the file.
7. In the configuration cockpit, in the side menu, select **Services and Tools**.
8. Click the **Translations** tile.

   The **Languages** application opens.

9. Click **Upload**.
10. Browse for the new ZIP file that contains all of the translated files, and click **Open**.

    New entries are added to the **Available Languages** table, displaying details such as language, status, and the time when the file was last updated.

Next Steps

After uploading a translation file, activate the specific language to see the translated site.

Note

You can use the Translations API to download and upload translation files. For more information, see API Documentation

Related Information

Maintaining Available Translations

Translating Texts and Assets of Freestyle Sites

Administrators can export their site content for translation and import translated content, which is then made available to end-users as an additional language option.

What is the Overall Process?

Context

The overall process of translating a freestyle site is as follows:

Note

You only need to upload translation files if the site is not already translated (for example, an imported site may already be translated). In this case, to make a language available for your end users, you simply need to turn on the relevant language in the **Available Languages** list in the **Translation Manager** and publish your site.

If the site is not already translated or if you don't upload the translation files for a turned on language, end users will only be able to see their site in the default master language.

Download Files for Translation

Context

In this step, you download all translatable site strings, site assets, and web content into a ZIP file.

> **Note**
>
> HTML code that is added manually to the HTML widget, is not included in the translation download. To include manually typed HTML widgets in the site translation, upload the HTML widgets to the Asset Repository before downloading the files for translation.

Procedure

1. Log in to the Admin Space, and select **Site Directory**.
2. Hover over the relevant site and click **Edit**.
3. Click to open the **Site Services** screen.
4. Hover over the **Translations** service and click **Configure**.
5. Click **Download**. A ZIP file is downloaded to your `Downloads` folder. This ZIP file contains the following:
   - A properties file (`<siteId>.properties`) with the site's source strings
   - A properties file (`WCE_<siteId>.properties`) that includes any web content strings in the site (these files exist only if there is web content in the site).
   - An ASSETS folder that includes all the site's assets.
6. Extract both property files.
7. Extract the site assets from the ASSETS folder.

Translate Site Strings

Context

These are instructions for translators:

Procedure

1. Open the property files in a text editor.
2. The content of the files is displayed in the following format: <key>=<value>.
3. Translate only the <value> strings.
4. When saving the translated files, add the language and the country to the file name, in the following format: `< site ID>_<language>-<COUNTRY>` or `WCE_< site ID>_<language>-<COUNTRY>`. For example, if you are translating to French, and the file name is `123.properties`, the translated file name should look like this: `123_fr-FR.properties`.

   > **Note**
   >
   > You can also use the following convention for the translated file name: `<site ID>_<language>.properties` or `WCE_<site ID>_<language>.properties` .

5. Repeat steps 3 and 4 for additional languages.

Translate Site Assets

Context

These are instructions for translators:

Procedure

1. Translate each asset.
2. When saving the translated file, add the language and the country to the file name, in the following format: `<asset name>_<language>-<COUNTRY>`. For example, if you are translating to French, and the file name is `MyPic.jpg`, the translated file name should look like this: `MyPic_fr-FR.jpg`.

   > **Note**
   >
   > You can also use the following convention for the translated file name: `<asset name>_<language>[.<extension>]`.

3. Repeat this procedure for additional languages.

Upload Translated Files

Procedure

1. Compress all the translated `.properties` files into a new zip file. Compress all the translated asset files into the same zip file, under a folder named ASSETS.
2. Reopen your site for editing in the Admin Space.
3. Click to open the **Site Services** screen and open the **Translations** service.
4. Click **Upload** and select the ZIP file that contains the translated content.

Under **Available Languages** you can now see a list of the translation languages.

5. To enable a language on this list, set the **Status** button to ON .
6. Publish the site to enable translation for the end user.

Next Steps

iNote

You can use the Translations API to download and upload translation files. For more information, see API Documentation

End User Language Selection

Context

As an end user, select the new language as follows:

Procedure

1. In the site, click your user name in the top right corner and select **User Preferences**.
2. Click **Language** and select the new language.
3. Click **Save**.

Maintaining Available Translations

Administrators can control whether a translation is available for the site, and can delete a translation from the subaccount as needed.

Context

You need to activate a language to make it available for end users. It is also possible to deactivate a language so that it is not available for end users temporarily, or delete a language entirely from the system.

Procedure

1. In the configuration cockpit, or in the Site Designer, select **Services and Tools**.
2. Click the **Translations** tile.

   The **Languages** application opens.
3. Use the **Available Languages** table as follows:
   - To activate a translation, set the status to On.
   - To deactivate a translation, set the status to Off.
   - To delete a translation from the subaccount, click the delete icon of the language entry in the table.

Which Language is Displayed to the User?

The language displayed to the user is determined by the URL parameter `sap-language=<locale>`, or by the browser locale settings if there is no parameter specified in the URL.

The translation uses one of the following, in order of precedence:

- `<SiteId>_<Language>-<Country>.properties`
- `<SiteId>_<Language>.properties`
- `<SiteId>_en.properties`

  We recommend that you have the English translation as a fallback, instead of using the site's source texts.
- Site's source texts

Working with Themes

A default theme, provided by SAP, is assigned to each site and its apps. Administrators can create custom themes in the UI theme designer, and use the **Theme Manager** to assign this theme to the site or to make it available for end user selection.

When you publish a theme in the UI theme designer, it is added automatically to the list of themes in the **Theme Manager**.

You access the **Theme Manager** by clicking the corresponding tile in **Services and Tools** in the SAP Fiori launchpad configuration cockpit and the Site Designer.

You can perform the following actions in the **Theme Manager**:

Action	Result
Assign to Site	The theme is assigned to the site and its apps.

Action	Result
Enable User Selection	This allows end users to select the theme at runtime, under User Preferences.
	Open the UI theme designer where you can create and manage themes.

The following properties are available for each theme:

Property	Description
Title	The name of the theme, as defined in UI theme designer
ID	The theme ID, as defined in UI theme designer
Updated by	The user who updated the theme
Updated on	The date when the theme was last updated. This property is empty for themes provided by SAP.
SAPUI5 Version	The SAPUI5 version of the theme. To ensure that custom themes are compatible with the current SAPUI5 version, make sure that you have published the theme at least once. After publishing a theme, the theme will upgrade automatically whenever the SAPUI5 version changes.
Automatic Theme Upgrade	A theme only works for the SAPUI5 version for which the theme was built. In SAP Cloud Platform, SAPUI5 is automatically upgraded once a new version is available. Therefore, when using a custom theme, the SAPUI5 version must be upgraded to ensure that the site and its applications display properly. This only appears in custom themes when this property is set to No. To enable the automatic upgrade of your theme, open the theme in the UI theme designer and publish it. The next time the SAPUI5 version is updated, this theme will be upgraded automatically.

For information about the UI theme designer, see UI Theme Designer.

Transporting Content

Administrators can transport content between subaccounts, between landscapes, and between regions. The transport is performed using export and import functions.

You can transport content in different ways, according to your needs:

How to Transport Content?	Launchpad Sites	Freestyle Sites	Transport from Site Directory	Transport from Configuration Cockpit
Content package (site content and configuration) iNote All of the items in a content package are assembled into a single .mtar file. For more information about MTA, see Multi-Target Applications.	Yes	Yes	Both site types	Launchpad Sites
Site configuration only	Yes	Yes	Both site types	Launchpad Sites
Roles	Yes	No	Not applicable	Launchpad Sites
Catalogs	Yes	No	Not applicable	Launchpad Sites

Related Information

Transporting Content of a Launchpad Site
Transporting Content of a Freestyle Site

Transporting Content of a Launchpad Site

Administrators can transport launchpad content, including translation files, between subaccounts, between landscapes, and between regions.

Context

You can transport the following content:

What to Transport?	What is Included?	Name of Transport File

What to Transport?	What is Included?	Name of Transport File
Content package	Site content: • HTML5 applications • Themes • SAP Cloud Platform Roles Site configuration: • Site settings • App configurations • Catalogs • Groups • Roles • Translations	`SAP_exported_solution_<site ID>.mtar` iNote All of the items in a content package are assembled into a single .mtar file. For more information about MTA, see Multi-Target Applications.
Site	Site configuration: • Site settings • App configurations • Catalogs • Groups • Roles • Translations	`SAP_exported_site_<site ID>.zip`
Roles	You select one or more roles.	`SAP_exported_roles_<site ID>.zip`
Catalogs	You select one or more catalogs.	`SAP_exported_catalogs_<site ID>.zip`

You can transport launchpad content (content package, site) either by using the export and import options in the Site Directory , or by using the Transport Manager service in the configuration cockpit.

To transport content from the Site Directory, use:

- The Export menu item, located in the actions menu of a freestyle site.
- The Import Site button, located at the top right side of the header bar.

The following procedures describe how to transport content of a launchpad site using the Transport Manager service.

Exporting Content

Procedure

1. In the configuration cockpit of your source subaccount or landscape, in the side panel, select Services and Tools, and click the Transport Manager tile.
2. In the Export tab, select the content to export: content package (site content and configuration), site (site configuration only), roles, or catalogs.
3. If you selected to export roles, click + (Add) at the top of the Roles to Export table. In the Select Roles dialog box, select one or more roles, and click OK.
4. If you selected to export catalogs, click + (Add) at the top of the Catalogs to Export table. In the Select Catalogs dialog box, select one or more catalogs, and click OK.
5. Click Export.
6. Save the exported file to the desired location.

   iNote

   You can download a report for details about the exported content package and information about any issues that might have occurred during export.

Importing Content

Procedure

1. In the configuration cockpit of your destination subaccount or landscape, in the side panel, select Services and Tools, and click the Transport Manager tile.
2. Select the Import tab.
3. Select the exported file. The file must be a .zip or .mtar file.
4. Click Import.

   To add new content and override existing content, click Add and Override.

   To replace all the existing content with the imported content, click Replace All.

   If you have imported a content package, you can download a report for details about the imported content and information about any issues that might have occurred during import.

Transporting Content of a Freestyle Site

Administrators can transport freestyle sites, including translation files, between subaccounts, between landscapes, and between regions.

Context

You can transport the following content:

How to Transport?	What is Included?	Name of Transport File
Content package (site content and configuration)	Site content: • Site template, pages, apps, widgets • Site assets (such as images and documents) • Themes • SAP Cloud Platform roles Site configuration: • Site settings, page settings • Launchpad configuration (if any), including app configurations, catalogs, groups, and roles. • Translations	`SAP_exported_solution_<site ID>.mtar` **Note** All of the items in a content package are assembled into a single .mtar file. For more information about MTA, see Multi-Target Applications.
Site	Site configuration: • Site settings, page settings • Launchpad content (if any), including app configurations, catalogs, groups, and roles. • Translations	`SAP_exported_site_<site ID>.zip`

Note

Freestyle sites are instances of site templates that are stored in the cloud repository of your subaccount. To complete the transport action and ensure the functionality of the transported site in the destination account, verify that the site template is copied to the cloud repository of the destination account.

The following procedures describe how to transport content using the export and import options in the Site Directory.

Exporting Content

Procedure

1. In the Site Directory of your source subaccount or landscape, open the actions menu of the freestyle site to export.
2. Select **Export**.
3. In the **Export Site** dialog box, select how to export the content: as a content package containing site content and configuration, or site configuration only.
4. Click **Export**.
5. Save the exported file to the desired location.

Note

You can download a report for details about the exported content package and information about any issues that might have occurred during export.

Importing Content

Procedure

1. In the Site Directory of your destination subaccount or landscape, click **Import Site** at the top right side of the header bar.
2. In the **Import Site** dialog box, select the exported file. The file must be a .zip or .mtar file.
3. Click **Import**.
    - If the site already exists, a message requests you to confirm that all the site content will be overwritten.
    - If the site is new, it is added to the Site Directory and the transport date is displayed in the **Created** field.

Managing Data Privacy

Administrators can manage capabilities that might use private data.

Related Information

Analyzing Site Statistics
Clean Up App State Data

Analyzing Site Statistics

The Usage Analytics service displays a dashboard where you can view statistical information relating to a site.

The Usage Analytics dashboard displays charts, graphs, or tables of statistical information about the usage of a launchpad site or of a freestyle site. You can see the Usage Analytics dashboard in both the Admin Space and in the SAP Fiori Configuration Cockpit.

⚠Caution

To comply with the General Data Protection Regulation (GDPR), as of May 25, 2018 the collection of usage analytics data is disabled by default.

The information about a site includes:

Item	Description
Visits and Visitors	Measures Web traffic by hour, day, week, or month, during a selected period of time. The number of visits indicates the total number of visits, whereas the number of visitors indicates visits from a unique IP. Anonymous users are counted as a single unique user for the number of visitors, but they are all added to the total number of visits.
Device Types	Displays the device types from which the site was accessed.
Operating Systems	Displays the operating systems from which the site was accessed.
Browsers	Displays the browsers from which the site was accessed.

Enable the collection of usage analytics data

iNote

Collected data may include personal data. Make sure that you provide your users with an updated privacy policy.

1. In the Admin Space, select Services and Tools.
2. Open the Data Privacy Management tool.
3. In the Usage Analytics tab, switch Collect Usage Analytics Data to ON.

When you disable usage analytics, data is no longer collected and all collected data is deleted.

Related Information

Configuring Legal Information

Clean Up App State Data

Administrators can delete all of the App State data saved in the database.

Context

SAP Fiori launchpad enables apps to be saved in a certain state to enable launching the app in that state using a direct URL that includes the `AppState` parameter. The data saved using this parameter may potentially include personal data.

Use the App State Cleanup tool to delete all app state data from the database for all apps in all sites in this subaccount.

iNote

- You can configure the Save App State Data capability in your site's Settings.
- Make sure that you provide your users with an updated privacy statement. For more information, see Configuring Legal Information.

Procedure

1. In the Admin Space, select Services and Tools.
2. Open the Data Privacy Management service.
3. Click Clear to delete all app state data.

Configuring Legal Information

Administrators can configure the information that appears under the Legal Information menu at the bottom of the navigation bar of the Admin Space, the Site Designer, and the launchpad configuration cockpit.

Context

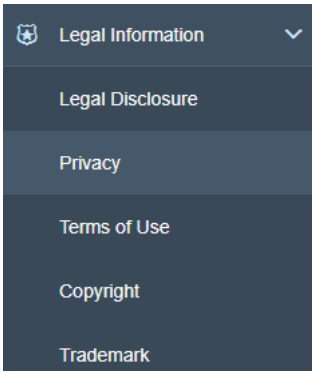
You can provide links to the following legal information: legal disclosure, privacy statement, terms of use, copyright, and trademark.

Procedure

1. In the Admin Space, select Services and Tools.
2. Open the Legal Information Configuration tool.
3. Provide links to the legal information relevant to this subaccount:

- Legal Disclosure
- Privacy
- Terms of Use
- Copyright
- Trademark

4. Refresh to see the links for the information you provided. For example, when you add valid links to all the information:



iNote

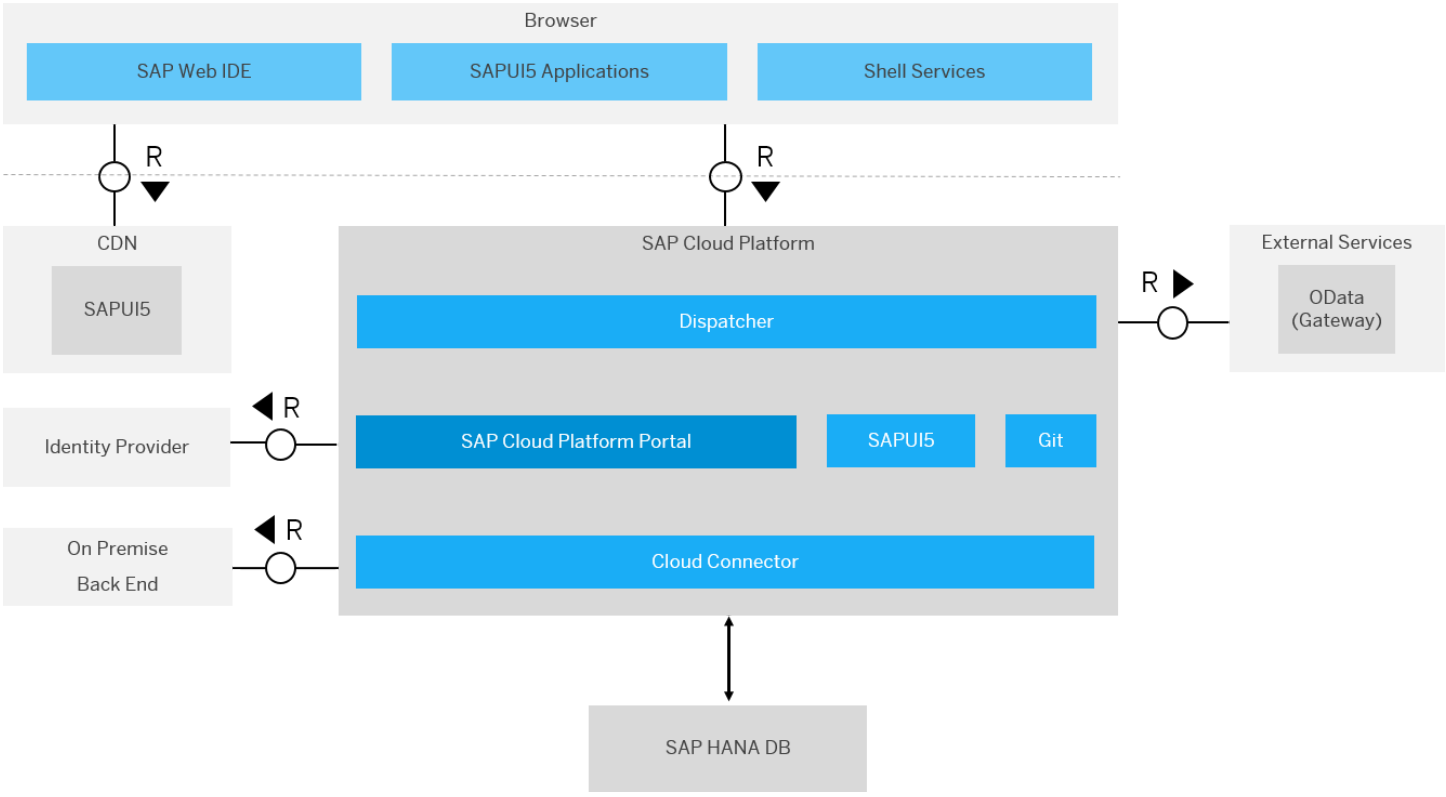
Items without a valid link will not be shown at all.

Security

This document provides guidelines for developers and administrators on how to ensure that the SAP Cloud Platform Portal is secure.

When using the SAP Cloud Platform Portal, you must prevent unauthorized access to critical information, such as personal or sensitive data.

The following diagram depicts the architecture of the SAP Cloud Platform Portal:



The following topics are included:

- Authentication
- Authorization
- Browser Security
- Transport Security
- Session Security
- Connection to External Systems
- Data Protection and Privacy
- Secure Programming

Authentication

User authentication processes in the SAP Cloud Platform Portal, enable users to be identified and verified so that they only access the resources for which they have the proper permissions.

Administrators need to perform the following tasks:

- Enable developers to access SAP Web IDE and deploy applications to Git, by configuring credentials in the SAP ID service. The SAP ID service uses the developer's SCN credentials.
- Configure credentials for the customer's subaccount on SAP Cloud Platform.

  Note that administrators can configure some pages and applications in a site to be public, so that end users can access them without being authenticated.
- Configure the Identity Provider (IDP) to access the SAP Cloud Platform Portal, including development tools, administration tools, and protected pages or applications.

Authorization

The SAP Cloud Platform Portal, uses the SAP Cloud Platform roles mechanism to grant permissions to users and groups of users.

Administrators need to perform the following tasks:

- Add developers to a subaccount and grant them the developer role, at the subaccount level.
- Assign users or groups to the TENANT_ADMIN role, to grant them permissions to access the administration tools and editors of the SAP Cloud Platform Portal.
- Assign end users to roles, assign catalogs to the roles, and assign applications to the catalogs. The roles are managed at the subscription level in SAP Cloud Platform.

iNote

If you configure a custom IDP that issues SAML assertions, you can configure automatic mapping between the SAML assertion attributes issued by the IDP and user principal attributes. This is done, per IDP, via the SAP Cloud Platform cockpit Trust section.

Browser Security

The SAP Cloud Platform Portal, takes proactive actions to prevent attacks on browsers:

- A Cross Site Request Forgery (CSRF) protection mechanism is used to ensure that data stays secure at all times. All network requests that intend to modify data, require passing a CSRF token as a request header.
- A click-jacking protection mechanism is used to ensure that the Portal is embedded only by Web pages with a trusted origin.

However, the Portal does not check that the applications that the browser runs use the same protection mechanisms. Since applications run in an embedded mode, they may interfere with each other.

Developers need to perform the following task:

- You are responsible for protecting applications that are intended to run in the Portal, such as site templates, page templates, SAP Fiori applications, Portal widgets, unified shell plug-ins. Specifically, validate and sanitize all the shared resources in the global state of the browser, so that other applications can't use the same resources.

Administrators need to perform the following task:

- When adding content to a site, make sure that the content is secure; in particular, SAP Fiori applications and HTML content inside widgets.

  iNote

  If the HTML content contains JavaScript, it will be executed at runtime.

Transport Security

All cloud applications use only HTTPS, which ensures that communication channels use encrypted connections.

Session Security

The sessions of the SAP Cloud Platform Portal, are managed using cookies in SAP Cloud Platform. The Portal supports CSRF prevention implemented by SAP or customer target systems, using a CSRF token that is read from the server, and used for subsequent write requests.

Developers need to perform the following tasks:

- Although data transport is secured using SSL, you still need to protect applications from malicious requests that may be sent from clients, such as CSRF and session fixation.
- Use session handling to associate a set of data with a specific user.

Connection to External Systems

Access to SAP systems, and other external systems, is maintained in the Dispatcher component (see diagram). Every system must have a defined destination. By default, the SAP ID service is configured to connect your SAP system to the SAP Cloud Platform Portal, enabling an SAP Community Network (SCN) user subaccount to call a configured destination to access the SAP system.

Administrators need to select, in the Destination configurations pane, one of the following options:

- NoAuthentication - opens a user-password dialog box into which end users enter their credentials.
- BasicAuthentication - access to the SAP system is not secured since it uses the same user credentials for all requests, regardless of the authenticated end user's identity.
- PrincipalPropagation - this is the **recommended** authentication option. It can be used only if the end user's data is already mapped in the SAP system.

Data Protection and Privacy

The SAP Cloud Platform Portal, tracks modifications made to sites and to themes. For instance, the user ID of the person who created or modified a site is recorded and shown on administration UI screens, like the Site Directory.

All incoming requests that can modify any type of data in the SAP Cloud Platform PortalSAP Cloud Platform auditing log feature, to ensure that all configuration changes and security events are logged.

Some identity providers may have personal data incorporated with the user ID, such as an e-mail address. As the SAP Cloud Platform Portal, is identity provider-agnostic, it does not have special treatment for these cases.

Administrators need to perform the following task:

- Make sure that the identity provider in use does not expose sensitive data as part of the user IDs.
- A site template, widget, or other third-party SAP Fiori application, that is intended to run as part of the SAP Cloud Platform Portal, and includes person-related data, must comply with the data protection rules of its target countries. This includes the usage of proper authentication, authorization, and encryption, such as SSO; and the usage of HTTPS, as well as properly securing and logging access to the person-related data.

Secure Programming

Software security requires making improvements during the entire software development life cycle, and not just as a one-time event, or a single code review.

Developers must comply with the following guidelines:

- Input validation - Implement input validation on both the client side and the server side, to prevent cross-site scripting (XSS) and injection issues.

  Server-side validation is mandatory, and should include type checks, character checks, and checks of the input length.

  Client-side validation complements server side validation, and should include input fields in the UI, URL paths and parameters, request headers and body, cookies, browser storage, and arbitrary JavaScript variables that may be modified via browser development tools.

  Browser storage, including session storage, local storage, Web SQL, Indexed DB, cache storage, application cache, and cookies, should never contain sensitive data.
- URLs - Do not pass or store sensitive data in URLs.
- Output encoding - Encode the output generated by an application before it is used. Responses from the server should have a valid content-type header. Data that is added to the browser DOM should be encoded differently when it is added as plain text, as HTML (with limited capabilities), or as attributes. Take into account that even if data seems to come from a valid data source, it is not always added in the way that the developer expects. Therefore, encode data on the client side before it is used.
- Caching - never cache responses from servers that may contain sensitive data. Make sure to add appropriate cache headers to these responses.

Data Protection and Privacy

Governments place legal requirements on industry to protect data and privacy. We provide features and functions to help you meet these requirements.

iNote

SAP does not provide legal advice in any form. SAP software supports data protection compliance by providing security features and data protection-relevant functions, such as blocking and deletion of personal data. In many cases, compliance with applicable data protection and privacy laws is not covered by a product feature. Furthermore, this information should not be taken as advice or a recommendation regarding additional features that would be required in specific IT environments. Decisions related to data protection must be made on a case-by-case basis, taking into consideration the given system landscape and the applicable legal requirements. Definitions and other terms used in this documentation are not taken from a specific legal source.

For more information, please see Data Protection and Privacy.

Working with Audit Logs

The audit log displays information about who (user) performed what (action) and when (precise time stamp). The request ID is also displayed for detailed traceability.

Requesting Audit Logs

Context

For example: `{"action":"POST","timestamp":"2017-04-19T09:40:47.218+0000"},object={"objectID":"4b7b2be8-cd9b-4a4a-87ff-450aa76af061","objectName":"Users"},custom={"request-id":"a5c95242-7ff9-4697-a605-ac91d1688888"}`

To view your audit logs, request them by creating a BCP incident.

Procedure

1. Create a BCP incident on component BC-NEO-AUDITLOG.
2. Provide the following information:
   - Landscape - for example, `Factory EU`
   - Account - for example, `avatar`
   - Time frame - for example, 1st to 3rd May
   - TenantID - The tenant ID for the account.

Results

The audit logs are exported, archived, and uploaded to a password protected SAP Mobile Documents share with an expiry date of two weeks from that day's date.

Audit Logs for Portal

Context

The following actions are logged from Portal:

- All `create` / `update` / `delete` actions – logged to the audit-log as a configuration event.
- Actions that result in 403 HTTP response [Forbidden] - logged as a security event.

iNote

To understand which action was performed on which object, refer to the **operation** (`create` / `update` / `delete`) and the **entityType** property (for example, catalog) in the log.

Integration with Other Tools and Services

Information about integration points between the launchpad and other tools and services.

Related Information

Collaborating Using SAP Jam
Adding On-Screen User Assistance Using SAP Enable Now Web Assistant
Configuring an SAP Mobile Documents App
Creating an SAP Smart Business KPI Tile
Enabling Integration with SAP Cloud Platform Mobile Services
Enabling Search and the Use of Fact Sheets
Running an SAP Business Explorer (BEx) App in SAP Cloud Platform Portal
Assign SAP Cloud Platform Catalogs to PFCG Roles
Configuring an SAP Business Server Page (BSP) App
Integrating SAP Enterprise Portal with SAP Cloud Platform Portal

Collaborating Using SAP Jam

SAP Jam is the standard collaboration tool used in SAP Fiori launchpad and Portal freestyle sites.

What preparation steps do I need to do before I can use SAP Jam?

To add SAP Jam functionality to your SAP Fiori launchpad site or to your Portal freestyle site, you need to do the following preparation steps.

Step	Description	How to do it
1	Ensure that the end user has an SAP Jam account.	You need an e-mail invitation to a group in SAP Jam. This invitation can only be sent by your SAP contact (an SAP employee) to an e-mail address provided by you. To accept the invitation, select the corresponding hyperlink in the invitation e-mail and log on to SAP Jam.
2	Set up your SAP Cloud Platform subaccount	To set up your SAP Cloud Platform subaccount, do the following: 1. Set up a trust. For more information, see Forming a Trust with SAP Jam. 2. Configure a destination. For more information, see Destination Properties for SAP Jam Integration.

Related Information

Using SAP Jam in a Launchpad Site
Using SAP Jam in a Freestyle Site

Forming a Trust with SAP Jam

To configure integration between SAP Jam and Portal sites (launchpad and freestyle), administrators must form a trust between the end user's IDP and SAP Jam.

How to form a trust between the end user's IDP and SAP Jam

1. Access the SAP Cloud Platform cockpit as the cockpit administrator, and go to the **Trust** **Local Service Provider** .
    a. If the subaccount is configured with company-specific trust settings of a local service provider, copy the **Local Service Provider** name and **Signing Certificate** value.
    b. If the subaccount is configured with default trust settings (using SAP IDP):
        i. Click **Edit**.

ii. Set the Configuration Type to Custom.

iii. Copy the Local Service Provider name.

iv. Copy and store the Signing Certificate value.

v. Click Cancel.

2. Access SAP Jam as the SAP Jam administrator, and switch to admin mode.

a. Add your local identity provider as a SAML trusted IDP as follows:

i. Under Integrations, select SAML Trusted IDP.

ii. If you are using an IDP that is not part of SAP Cloud Platform, click Register your SAML Trusted IDP.

iii. Set the IDP ID to the name of the Local Service Provider defined in step 1a above.

iv. Set the X509 Certificate to the certificate created in step 1a above.

v. Make sure that the Enabled checkbox is selected.

vi. Click Register.

b. Create an OAuth client for the SAP Cloud Platform subaccount:

i. Under Integrations, select OAuth Clients.

ii. Select Add OAuth Client.

iii. Enter any name in the Name field.

iv. Set the appropriate Integration URL to the name of the Local Service Provider defined in step 1a.

v. Click Save.

vi. Click View to get the generated OAuth Client Key.

Destination Properties for SAP Jam Integration

Administrators must set up a destination in an SAP Cloud Platform subaccount for configuring integration with SAP Jam.

How to set up a destination

1. In the SAP Cloud Platform cockpit, go to Destinations New Destination , and configure destinations to SAP Jam.
2. Enter the following destination properties:

Attribute	Description
Name	jam
Type	HTTP
URL	[Your Jam destination URL] For example: https://jam4.sapjam.com
ProxyType	Internet
Authentication	OAuth2SAMLBearerAssertion
audience	cubetree.com
clientKey	[OAuth key from SAP Jam] Get the clientKey as follows: a. Go to the SAP Jam Admin Console and select Integrations OAuth Clients. b. From the OAuth Clients page, click View and copy the Key value.
TokenServiceURL	[Your TokenService URL] For example: https://jam4.sapjam.com/api/v1/auth/token
Additional properties	
TrustAll	True
userIdSource	email
nameIdFormat	urn:oasis:names:tc:SAML:1.1:nameid-format:emailAddress

3. **For freestyle sites only**: if you are configuring a destination for a freestyle site and you are using the new naming convention, you need to first map the sap_jam_odata destination value to jam as follows:

a. Access your SAP Cloud Platform subaccount.

b. Click Applications Subscriptions .

c. Under Subscribed HTML5 Applications, click portalapptemplates

d. Under Required Destinations, click Edit.

e. Change the **Mapped Subaccount Destination** from `sap_jam_odata` to `jam`.

f. Click **Save**.

iNote

`userIdSource` and `nameIdFormat` are properties that are specific to the OAuth between SAP IDP and SAP Jam. Users from SAP IDP are identified in SAP Jam according to their email address. If the subaccount is configured for a different IDP, these properties may be omitted and replaced with other properties according to the specific IDP settings.

Using SAP Jam in a Launchpad Site

Administrators can set up SAP Jam in an SAP Fiori launchpad site by creating specific tiles so that end users can easily collaborate with their colleagues.

Prerequisites

- You have set up integration between the launchpad site and SAP Jam.

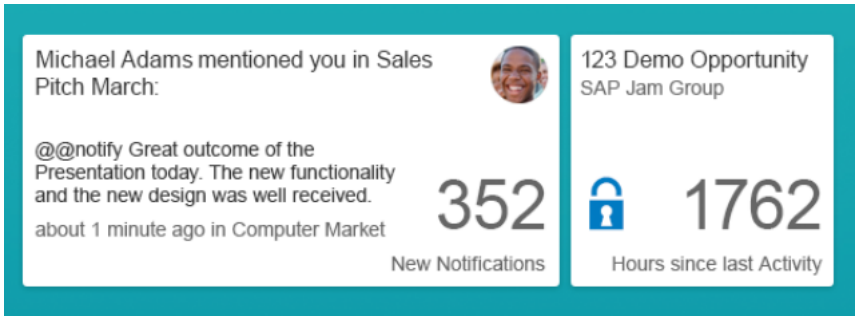
  For more information, see Collaborating Using SAP Jam

- You have enabled SAP Jam integration in the **Site Settings** editor in the configuration cockpit.

  For more information, see Launchpad Settings

How can SAP Jam be used in the launchpad?

Once you have set up integration between the launchpad and SAP Jam, end users can enjoy the following capabilities that this scenario has to offer:

Capability	More Information
Configure SAP Jam tiles	You can configure two different types of tiles in the launchpad; one for viewing notifications, and one to view group information. A typical configuration would include: • A single tile for viewing notifications. Users can see the latest notifications received in their SAP Jam account. • Multiple tiles - one for each SAP Jam group that the user belongs to. Users can see when the last group activity occurred and they can also navigate directly to the SAP Jam group. Users can find these SAP Jam tiles in a designated SAP Jam catalog in their launchpad catalog and simply add these tiles to any tile group. The following screen capture shows the two types of tiles: 
Configure **Share** and **Discuss** menu options	This feature is available for cloud solutions when configured with an ABAP backend destination. For more information, see Configuring Share and Discuss Features for a Launchpad Site

Using SAP Jam in a Freestyle Site

Administrators can set up SAP Jam in a freestyle site so that end users can easily collaborate with their colleagues.

Prerequisites

- You have set up integration between the freestyle site and SAP Jam.

  For more information, see Collaborating Using SAP Jam

- You have added SAP Jam widgets to a Portal freestyle page.

  For more information, see About Widgets.

How can SAP Jam be used in a freestyle site?

Once you have set up integration between the Portal freestyle site and SAP Jam, end users can use the following widgets to collaborate with their colleagues:

Widget	Description
SAP Jam Group Feed	Displays the feed from a selected SAP Jam group in the site. The end user sees the group feed and can post to the group.
SAP Jam Search	Displays the results of a search query that you defined in the widget. This enables the end user to search for content.
SAP Jam Content	Displays content from a selected SAP Jam group. The end user can then navigate through the content and download files directly from the widget.

Configuring Share and Discuss Features for a Launchpad Site

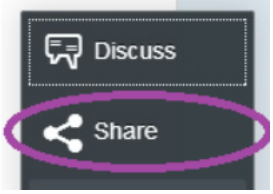
Administrators can add Share and Discuss controls to an app that enables end users to communicate with a particular SAP Jam group.

Prerequisites

You have followed the requirements listed in the *Setup of SAP Fiori System Landscape with ABAP Environment* listed under **http://help.sap.com/fiori System Landscape Required for SAP Fiori** .

How to configure the Share and Discuss Menu Options

You can add the **Share** and **Discuss** controls to an app by using API services. When end users click these controls, a dialog box opens displaying the relevant information they want to share or discuss with a particular SAP Jam group.



To enable this feature, do the following:

1. Create a destination pointing to the backend ABAP application as follows:

    a. In the SAP Cloud Platform cockpit, go to **Destinations New Destination** , and configure destinations to SAP Jam.

    b. Enter the following destination properties:

Attribute	Value
Name	`sap-jam-abap-smi`
Type	HTTP
URL	[Your ABAP SMI destination URL] For example: https://cimg1.wdf.sap.corp:4301
CloudConnectorVersion	2
ProxyType	OnPremise
Authentication	BasicAuthentication
User	[User name]
Password	[Password]

2. Configure a destination path in the `neo-app.json` file of the SAP Fiori app as follows:

    Sample Code

```
/sap/bc/ui2/smi/rest_tunnel/Jam/"
target: {
type: "destination"
name: "jam"
          },
description: "jam destination"
}
```

3. To enable this feature for a new app configuration, refer to:Configuring ABAP SMI for SAP Fiori Apps.

Adding On-Screen User Assistance Using SAP Enable Now Web Assistant

Administrators can add on-screen user assistance to their SAP Fiori launchpad apps using SAP Enable Now Web Assistant.

Prerequisites

You have created Web Assistant content using the SAP Enable Now Manager.

For more information, see the *Setting Up the Manager as Content Server* section in the Web Assistant Integration guide.

Context

SAP Enable Now Web Assistant provides on-screen user assistance directly on top of the application screen.

Once activated, users open the Web Assistant user assistance tool using the question mark icon on the right of the header bar.

Web Assistant enables you to write user assistance content and then connect it to controls in the UI, to display relevant information and instructions. Web Assistant provides two types of content: Context Help and Guided Tours. For more information, see the *Content Types* section in the Web Assistant Integration guide.

To make Web Assistant available in your SAP Fiori launchpad, you need to define a **Shell Plugin** app in the SAP Fiori launchpad configuration cockpit. In this app, you define the parameters of the relevant Web Assistant content, which include the product and version of the content.

Procedure

1. In the SAP Fiori launchpad configuration cockpit, create a new App of type **Shell Plugin**.
2. In the **Properties** tab, enter the following values in the **App Resource Details** section:

Property	Value
App Type	Shell Plugin
Shell Plugin Type	Custom
Component URL	/resources/sap/dfa/help/utils/adapters/fiori
SAPUI5 Component	sap.dfa.help.utils.adapters.fiori

3. In the **Catalogs** tab, add at least one catalog.
4. In the **Parameters** tab, add the following parameters and their default values, both of which are case sensitive:

Name	Default Value	Description
product	<product name>	Your product name, as defined in your content platform
version	<version>	Your product version, as defined in your content platform
serviceLayerVersion	WPB	Indicates that the SAP Enable Now Manager is the content server
dataUrlWPB	<URL of Manager>	The URL of the SAP Enable Now Manager
edithelp	true	Adds the **Edit** icon (pencil) to the Web Assistant carousel. When you enter edit mode, you can link your content to the corresponding controls in the UI by assigning hotspots. **iNote** Use this parameter **only in a staging system**, so that users do not see it in a production system.

iNote

There are additional parameters for configuring various aspects of Web Assistant. For more information, see the *Features and Configuration* section in the Web Assistant Integration guide.

5. Save and publish your launchpad site.
6. Open your SAP Fiori launchpad and click the Web Assistant icon on the right side of the header bar, to open the carousel.
7. Select the Edit icon to enter edit mode, and assign your content to hotspots in the UI. For more information, see the *Editing a Hotspot* sections in the Web Assistant Integration guide.
8. Save your changes, and exit edit mode.

   You can now test your content.

Configuring an SAP Mobile Documents App

An administrator can create an app that accesses an SAP Mobile Documents folder.

Prerequisites

- You have an SAP Cloud Platform subaccount.
- You are subscribed to the SAP Cloud Platform Portal, and you are assigned to the TENANT_ADMIN role for this Java subscription.
- You are subscribed to SAP Mobile Documents, and you are assigned to the Admin role for this Java subscription. Other users should be assigned to the User role.
- Your SAP Fiori launchpad URL is defined in the trusted domains of SAP Mobile Documents. The format of the URL should be as follows:

  ```
  <launchpad app name>-<subaccount>.dispatcher.hana.ondemand.com
  ```

  For more information, see Integrating SAP Fiori Launchpad and an SAP Mobile Documents Folder.
- You have a Corporate Documents folder or a Public Share folder in SAP Mobile Documents for which you would like to create an app. For more information, see Configuring Corporate Content Repositories (Cloud).

  For this folder, you need to obtain the value of the **Web link for members** URL. For more information, see Integrating SAP Fiori Launchpad and an SAP Mobile Documents Folder.

Procedure

1. In the configuration cockpit, go to **Content Management Apps**, to open the **Manage App Configuration** editor.

2. Click ➕ (New) at the bottom of the side panel of the editor. The new app appears in the side panel and opens for editing.
3. In the **Properties** tab:
    a. In the **App Title** field, enter the title to be displayed for the app.
    b. In the **App Subtitle** field, enter additional information about the app. (Optional)
    c. From the **App Type** list, select **SAP Mobile Documents**.
    d. In the **Folder URL** field, paste the value of the **Web link for members** URL.

    > **Note**
    >
    > If your launchpad is configured to use a custom domain, configure the same domain for this URL.
    >
    > Make sure the `mdocs.<custom domain>` string is added to your custom domain DNS mapping, to enable the resolution of this path.

    e. Assign the app to one or more catalogs.
    f. Assign the app to one or more groups.
4. Click **Save**.
5. Click **Site Preview**.

   The app that you created appears in the home page, in the assigned groups.

   Click the app to see the content of the SAP Mobile Documents folder.

Related Information

App Properties
Navigation Parameters

Creating an SAP Smart Business KPI Tile

You can add to the launchpad KPI (key performance indicator) tiles that you create in SAP Smart Business.

Prerequisites

You have the SAP Predictive Maintenance and Service solution, and therefore have the SAP Smart Business Modeler menu item in the side menu of your configuration cockpit.

For more information, see Smart Business Service.

Context

You use the SAP Smart Business Modeler menu item to open a list of editors with which you can create KPI tiles. Every tile that you create is added to the list of apps in the configuration cockpit, so that you can configure its assignments.

Procedure

1. In the configuration cockpit, in the side menu, use the **SAP Smart Business Modeler** editors to configure a KPI tile.

   An app for this tile is added to the list of apps in the configuration cockpit.
2. In the side menu, select **Content Management Apps**.
3. Select the app that you created, and click **Edit**.
4. In the **Properties** tab, configure the assigned catalogs and the assigned groups.

   > **Note**
   >
   > Changes to the tile can be made only with SAP Smart Business Modeler.

5. Click **Save**.

Related Information

App Properties
Navigation Parameters

Enabling Integration with SAP Cloud Platform Mobile Services

SAP Cloud Platform Mobile Services offer authentication, secure on-boarding, native push notifications, and reporting capabilities for enterprise mobile applications.

Context

To use mobile services with SAP Fiori launchpad on cloud, configure the `mobileservices` destination to point to yourSAP Cloud Platform Mobile Services subscription.

For more information, see SAP Cloud Platform Mobile Service for Development and Operations.

Procedure

In SAP Cloud Platform cockpit, configure the `mobileservices` destination as follows:

a. In the URL field, enter the URL of the SAP Cloud Platform subscription.

b. In the Proxy Type field, enter `Internet`.

c. In the Authentication field, enter `AppToAppSSO`.

Enabling Search and the Use of Fact Sheets

To search for business objects, you need to enable the use of search in SAP Fiori configuration cockpit. You also need to enable the use of fact sheets to be able to launch a fact sheet for a business object and display a detailed view of a search result.

Prerequisites

- You have a back-end system where search is enabled.
- You have an SAP Cloud Platform cloud connector configured to access your back-end system from your customer cloud subaccount.
- You have enabled the Search option in the Site Settings. For more information, see Launchpad Settings.
- You have obtained the annotation file of the fact sheet.

  For example, `/sap/bc/bsp/sap/BSCBN_ANF_FIN/bscbn_accounting_doc_anno.xml`.
- You have obtained the `entityTemplateURI` value.

  For example,
  `/sap/opu/odata/sap/CB_ACCOUNTING_DOCUMENT_SRV/AccountingDocuments(AccountingDocument='{AccountingDocument}',CompanyCode='{CompanyCode}'`

Context

In SAP Cloud Platform cockpit, you configure destinations for the backends on which to perform the search and use factsheet OData calls. Then, in SAP Fiori configuration cockpit, you need to configure an app that enables displaying a fact sheet for a business object.

Procedure

1. In SAP Cloud Platform cockpit, configure a destination for the back-end system in which to perform the search, and the back-end system to use for the fact sheet OData calls.

   For example, for the search destination:

   ```
   Name=search_backend
   URL=https\://onpremise.com\:<port>/
   ProxyType=OnPremise
   Type=HTTP
   CloudConnectorVersion=2
   Authentication=PrincipalPropagation
   ```

   For the fact sheet destination, use `factsheet_backend` as the `Name` value.

   For more information, see Configuring Destinations from the Cockpit.

2. Create an HTML5 application called `annofiles`. This application will hold all your static annotation files for the corresponding fact sheets.

   For more information, see Creating an HTML5 Application.

3. Deploy the annotation file of the fact sheet to the root path of the newly-created application. For example: `/sap/fiori/annofiles/bscbn_accounting_doc_anno.xml`.

   Note

   The annotation file name must be in lowercase letters.

   For more information, see Pushing a File to the Git Repository.

4. In SAP Fiori launchpad configuration cockpit, in the side menu, select Content Management Apps.
5. Click ➕ (New) at the bottom of the side panel.
6. In the Properties tab:
   a. In the App Title field, enter the title to be displayed for the app.
   b. In the App Subtitle field, enter additional information about the app. (Optional)
   c. In the Semantic Object field, enter the name of the business object. For example, `AccountingDocument`.
   d. In the Action field, enter `displayFactSheet`
   e. From the App Type list, select SAPUI5.
   f. In the Component URL field, enter `/sap/ui5/1/resources/sap/ushell/components/factsheet`.
   g. In the SAPUI5 Component Name field, enter `sap.ushell.components.factsheet`.
   h. Make sure the HTML5 App Name field is empty.
   i. Assign the app to one or more catalogs.
   j. Assign the app to one or more groups.
7. In the Visualization tab, from the Tile Type list, select No Tile.
8. In the Parameters tab, under Intent Parameters:
   a. Click ➕ (Add).
   b. In the Name column, enter `annotationURI`.
   c. Make sure that the checkboxes are not selected.

d. In the **Default Value** column, enter the URL-encoded value of `/sap/fiori/annofiles/<annotation file name>`.

e. Click **Add** again.

f. In the **Name** column, enter `entityTemplateURI`.

g. Make sure that the checkboxes are not selected.

h. In the **Default Value** column, enter the URL-encoded value of the `entityTemplateURI` value.

9. Save your changes.

Related Information

Working with Catalogs

Assign SAP Cloud Platform Catalogs to PFCG Roles

To automatically determine which authorizations are required to run back-end content from the SAP Fiori launchpad on SAP Cloud Platform, you create a new menu entry for the SAP Cloud Platform catalogs in the PFCG role menu.

Prerequisites

1. You have admin access to the systems:
   - In the ABAP back-end system: You are assigned the admin role SAP_UI2_ADMIN.
   - In SAP Cloud Platform: You are assigned to the cockpit Administrator role. For more information, see Subaccount Member Roles.
2. The SAP Cloud Platform Portal is enabled. To verify, open the SAP Cloud Platform cockpit, and go to **Services**.
3. The PFCG enhancement is enabled. By default, the required catalog provider entry is hidden in transaction PFCG. To activate it, you need to apply SAP note 2402000 in your ABAP back-end system.
4. A connection is established between the ABAP system and SAP Cloud Platform. For more information, see Establish a Connection Between ABAP and SAP Cloud Platform.

Context

You want to allow end users to launch SAPUI5 applications (which use OData services), Web Dynpro ABAP applications, or SAP GUI transactions from the SAP Fiori launchpad running on SAP Cloud Platform.

To automatically determine which authorizations are required to run these applications, the Role Maintenance (transaction PFCG) in the ABAP back-end system, needs to retrieve the catalogs referencing these applications.

To enable the Role Maintenance in ABAP to retrieve the catalogs created in the launchpad configuration cockpit in SAP Cloud Platform, you establish a connection between ABAP and SAP Cloud Platform.

Procedure

1. In your ABAP back-end system, launch Role Maintenance (transaction PFCG).
2. Provide the role name and choose **Change**.

   If no suitable role exists, create a role by choosing **Create Single Role**. All users with this role are granted access to the catalog assigned to the role.
3. Choose the **Menu** tab.
4. Choose **Insert Node** and select **SAP Fiori Tile Catalog**.
5. In the **Assign Tile Catalog** dialog box, select **Fiori Launchpad HCP Catalogs** as catalog provider.
6. Enter the following details:
   - RFC destination for SAP Cloud Platform token
   - RFC destination for SAP Cloud Platform catalog
   - ID of the SAP Cloud Platform catalog

   You can use the value help for this.
7. Confirm your selection.

Results

The tile catalog you assigned to the role is available in the role menu. In the Role Menu tree, authorization defaults for applications used in the catalog are listed as nodes under the catalog.

Next Steps

Use the default authorization entries to maintain authorization data and generate a profile for the role. For more information, see Editing Predefined Authorizations.

Establish a Connection Between ABAP and SAP Cloud Platform

Follow this procedure to form a trust between ABAP and SAP Cloud Platform systems.

Configuration Steps in SAP Cloud Platform

To retrieve the list of catalogs and the list of referenced applications from SAP Cloud Platform and make them available in the ABAP system, configure ABAP as a client in SAP Cloud Platform cockpit.

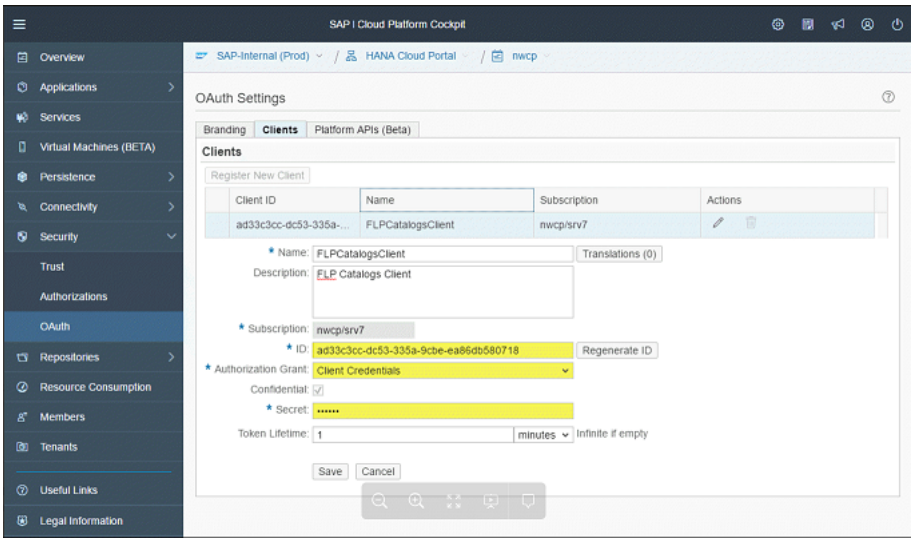
Step 1: Register ABAP as a client

In SAP Cloud Platform cockpit, register the OAuth 2.0 client. For detailed explanation, see Registering an OAuth Client.

1. Access the SAP Cloud Platform cockpit, and select a subaccount.
2. In the **Security** **OAuth** section, go the **Clients** tab.
3. Click **Register new Client**.
4. Enter the following client data:

Name	Value
Name	for example, FLPCatalogsClient
Description	for example, FLP Catalogs Client
Subscription	for example, nwcp/srv7 <name of subscribed subaccount/name of subscribed app>
ID	for example, ad33c3cc-dc53-335a-9cbe-ea86db580718 (generated)
Authorization Grant	Client Credentials
Confidential	<Check this option>
Secret	<Customer's own secret string>
Token Lifetime	1 hour

5. Save the new client.



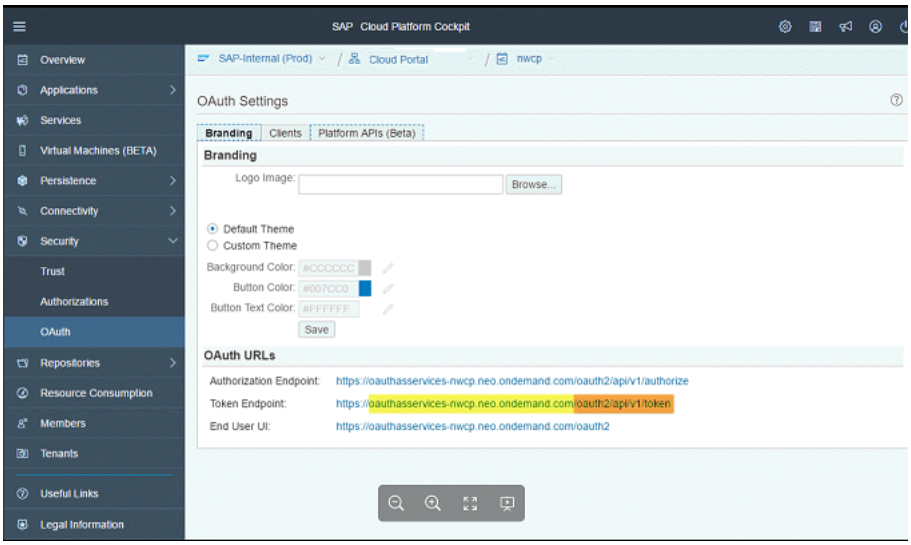
Step 2: Add OAuth token endpoint of SAP Cloud Platform

1. Switch to the Branding tab.
2. Copy the value of the **Token Endpoint** field. From this value, you can get the host name, port, and path.

The host name of the token endpoint differs depending on the SAP Cloud Platform installation you are using.

Example:

Name	Value
Token Endpoint	for example, `https://oauthasservices-nwcp.neo.ondemand.com/oauth2/api/v1/token`
Host Name	for example, `oauthasservices-nwcp.neo.ondemand.com`
Port	443 (default https port)
Path	/oauth2/api/v1/token



Configuration in ABAP

1. Launch transaction SM59 in your ABAP system.
2. Create a destination (type G) for the OAuth token endpoint.
    a. Press the Create button.
    b. Fill in the data according to the following example:

UI Area	Name	Value
Header Data	RFC Destination	for example, CP_OAUTH
Header Data	Connection Type	G (HTTP Connection to External Server)
Header Data	Description	for example, CP OAuth Token Endpoint
Technical Settings	Target Host	`oauthasservices-nwcp.neo.ondemand.com`
Technical Settings	Service Number	443
Technical Settings	Path Prefix	/oauth2/api/v1/token
Technical Settings	Proxy Host	for example, proxy
Technical Settings	Proxy Service	for example, 8080
Logon & Security	Basic Authentication	X
Logon & Security	User	ad33c3cc-dc53-335a-9cbe-ea86db580718
Logon & Security	Password	<Customer's own secret string>
Logon & Security	Do Not Send Logon Ticket	X
Logon & Security	SSL Active	X
Logon & Security	SSL Certificate	ANONYM SSL Client (Anonymous)

3. Create a destination (type G) for the SAP Cloud Platform catalogs.
    a. Press the Create button.
    b. Fill in the data according to the following example:

UI Area	Name	Value
Header Data	RFC Destination	for example, CP_CATALOGS
Header Data	Connection Type	G (HTTP Connection to External Server)
Header Data	Description	for example, CP Catalog
Technical Settings	Target Host	`<application name>-<subaccount name>.<landscape host name>`
Technical Settings	Service Number	443
Technical Settings	Path Prefix	//fiori/api/oauth2/v1/services/contentprovider/catalogs/
Technical Settings	Proxy Host	for example, proxy
Technical Settings	Proxy Service	for example, 8080
Logon & Security	Do Not Use a User	X
Logon & Security	Do Not Send Logon Ticket	X
Logon & Security	SSL Active	X
Logon & Security	SSL Certificate	ANONYM SSL Client (Anonymous)

4. In transaction STRUST verify that the certificate that is used by the SAP Cloud Platform instance, is included in the certificate list.

Running an SAP Business Explorer (BEx) App in SAP Cloud Platform Portal

SAP Business Explorer (SAP BEx) is a set of flexible reporting and analytical tools that resides in the SAP NetWeaver platform. Many end users need SAP BEx to evaluate their data and generate reports.

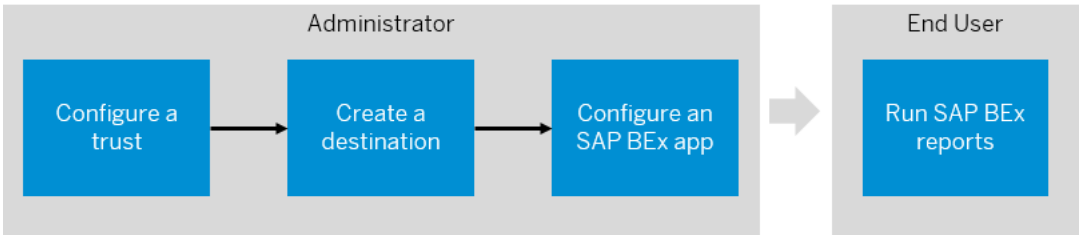
By configuring an SAP BEx app to run in your SAP Cloud Platform Portal, you can enable end users to launch BEx reports from their freestyle or SAP Fiori Launchpad sites.

iNote

Accessing SAP BEx apps is not supported outside of the organization's intranet (external access point).

Before you can run an SAP BEx app in the Portal, there are some configurations that you have to carry out first.

What is the overall process?



To summarize:

1. Configure a trust between SAP NetWeaver platform and SAP Cloud Platform. This entails carrying out configuration steps in both systems.
2. Create a destination in your SAP Cloud Platform account that points to SAP NetWeaver platform.

   For more information, see Configuring a Destination
3. Configure an SAP BEx app in the SAP Fiori Launchpad configuration cockpit.

   For more information, see Configuring an SAP Business Explorer (BEx) App

The result is that end users can view and edit the reports launched from SAP BEx in their SAP Fiori Launchpad or Portal freestyle sites

Configuring a Destination

Administrators must create a destination in the SAP Cloud Platform account to integrate it with SAP NetWeaver platform.

iNote

Make sure that the destination contains a flag parameter that indicates that the SAP Business Explorer (BEx) application type is available for selection in the SAP Fiori Launchpad configuration cockpit.

Let's configure the destination.

1. In the SAP Cloud Platform cockpit, go to **Destinations** **New Destination**.
2. Enter the following destination properties:

Property	Value
Name	You can enter any name. For example: BEx
Type	HTTP
Description	Enter more details.
URL	http(s)://<Host>:<Port> For example: http://myserver.mydomain:5000
Proxy Type	Internet
Authentication	NoAuthentication
Additional Properties	
BEx	true

3. Save your settings.

Configuring an SAP Business Explorer (BEx) App

Administrators can configure a dedicated app in the SAP Fiori Launchpad configuration cockpit to enable authorized end users to launch SAP BEx reports from their SAP Fiori Launchpad or Portal freestyle sites.

Prerequisites

- You have configured a trust between your SAP Cloud Platform account and SAP NetWeaver.
- You have created a destination between SAP Cloud Platform and SAP NetWeaver.

  For more information, see Configuring a Destination.

Context

If these configurations are in place, then we're ready to start.

Procedure

1. Log on to the SAP Fiori Launchpad configuration cockpit.
2. From the left panel, click (Content Management) and select **Apps**.
3. From the **Manage App Configuration** editor, go to the **Properties** tab.
4. Under **App Resource Details**, select `SAP Business Explorer (BEx)` as your **App Type**.
5. Enter a **System Alias**. This is the destination name configured to connect to SAP Business Explorer (for example `SAP BEx`).
6. Enter the **Query**. This is the URL parameter that runs the SAP BEx report. It is displayed in the **Parameters** tab in the following format: `Param1=A&Param2=B`.

   iNote

   To add an SAP BEx app to a freestyle site, you access **Content Management** from the side panel of the Site Designer and configure the SAP Business Explorer (BEx) app as explained in the procedure above (step 2 onwards).

Configuring an SAP Business Server Page (BSP) App

Administrators can create Business Server Page (BSP) apps that end users can access using HTTP or HTTPS as the protocol.

Prerequisites

You have set up SAP Cloud Connector.

For more information, see the following tutorial: SAP Cloud Platform Cloud Connector setup for secure on-premise connectivity.

Context

To create an SAP BSP app, do the following:

Procedure

1. First create a destination in SAP Cloud Platform and enter the following destination properties:

Property	Value
Name	Enter a destination name that is identical to the **System Alias** property defined for the app in the **Manage App Configuration** editor of SAP Fiori launchpad configuration cockpit.
Type	**HTTP** iNote Should start with `https://`.
URL	URL and port number of the back-end system.
Proxy Type	Select **Internet** or **OnPremise** according to the connectivity to your back-end system.
Authentication	Select the authentication method that you need. For more information, see Create HTTP Destinations.
Additional Properties	Click **New Property** to add the following additional properties: a. Enter `Usage` as the property and in the value field, enter `Backend`. iNote Both the property name and the value are case sensitive. b. This property is optional. Select `sap-client` from the dropdown list and enter the client number as defined in your back-end system as the value.

2. Now in your freestyle or launchpad site, go to (***Content Management***).

3. Click Apps to open the Manage App Configuration editor.
4. Name the app and select Business Server Page (BSP) as the App Type.
5. An SAP BSP application is executed through HTTP using a URL. Enter the following values that make up the structure of this URL:`<system_alias>/<cust_namespace /bc/bsp/<app_namespace>/<bsp_app_name>/<start_page>`

Parameter	Description
system_alias	The destination name of the SAP system that hosts the BSP application.
cust_namespace	A unique parameter that appears in the back-end system as a service folder. It is the namespace ID of the BSP application.
bc and **bsp**	These are default parameters.
app_namespace	A unique parameter used as a prefix for the application name.
bsp_app_name	The name of the BSP application (without it's namespace).
start_page	The page ID of the BSP application start page; for example, `start.html`.

Integrating SAP Enterprise Portal with SAP Cloud Platform Portal

Administrators can configure connectivity between an SAP Cloud Platform subaccount and SAP Enterprise Portal to enable users to search for and use their on-premise applications in SAP Cloud Platform Portal.

iNote

Please note that this feature will only be available for SAP Enterprise Portal 7.5 SP11 release.

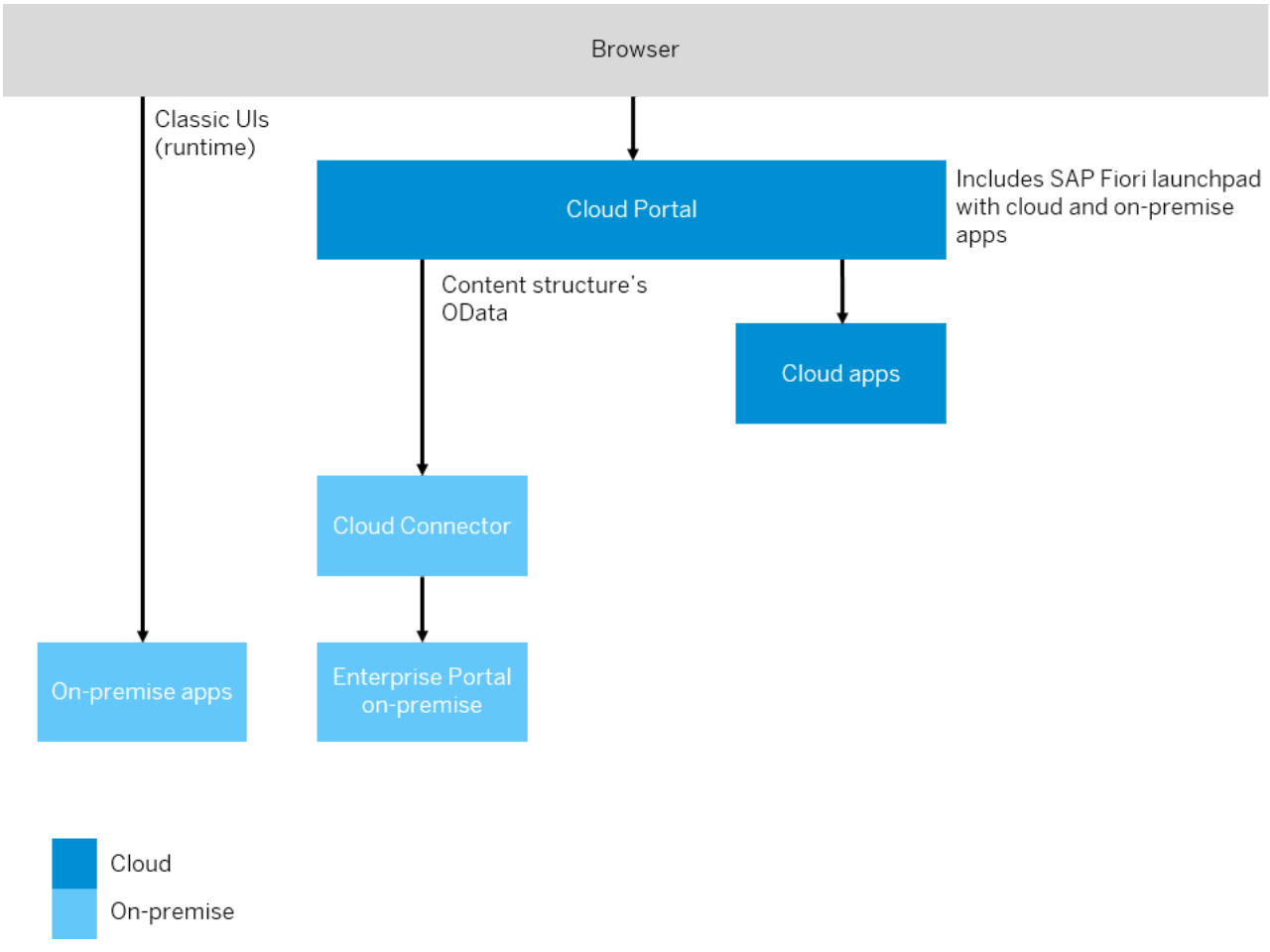
Overview

Many SAP customers have rich implementations of on-premise SAP Enterprise Portal that include many classic UIs such as Web Dynpro ABAP, SAP GUI, BSP, and other applications. Customers who want to use SAP Cloud Platform Portal for their new applications, still want to access their on-premise apps.

By making SAP Enterprise Portal a content provider for SAP Cloud Platform Portal, the on-premise apps are exposed and can then be added to a launchpad site and\or to a launchpad page within a freestyle site.

In this document, we describe how to configure SAP Enterprise Portal and SAP Cloud Platform Portal to achieve this capability.

High-level architecture showing SAP Enterprise Portal as a content provider for SAP Cloud Platform Portal



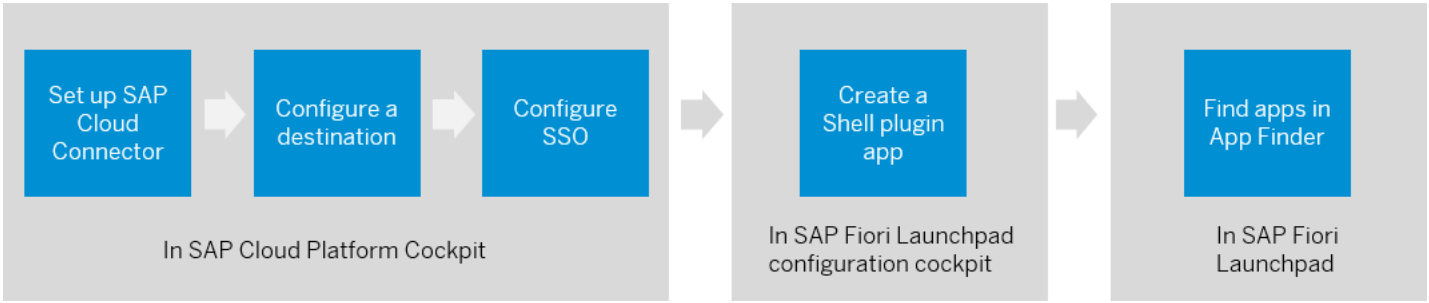
Prerequisites

Before you get started, make sure of the following.

- SAP Enterprise Portal 750 SP11 with SAP Gateway is installed.
- You have an SAP Cloud Platform subaccount (with an enabled Portal service).
- Your SAPUI5 version is 1.44 or higher.

What is the overall process?

Hover over each shape for details, click them for more information.



Setting Up SAP Cloud Connector

Administrators set up and configure the SAP Cloud Platform Cloud Connector to connect applications running on SAP Cloud Platform with on-premise systems.

iNote

Please note that this feature will only be available for SAP Enterprise Portal 7.5 SP11 release.

Prerequisites

You have downloaded and installed SAP Cloud Platform Cloud Connector.

For more information, see the following tutorial: SAP Cloud Platform Cloud Connector setup for secure on-premise connectivity

How to set up SAP Cloud Connector

1. Log on to SAP Cloud Platform Connector as an SAP Cloud Platform administrator.
2. Go to **Cloud To On-Premise** (for the relevant SAP Cloud Platform subaccount).
3. Click + on the right.
4. In the dialog box that opens, select **Other SAP System** as the **Backend Type** and click **Next**.
5. Select **HTTPS** as the **Protocol** and click **Next**.
6. Enter the URL of **Web Dispatcher** as the **Host** and the port number of **Web Dispatcher** as the **Port** and click **Next**.
7. Enter **Virtual Host** and **Virtual Port** - these values are optional - click **Next**.
8. Leave **Principal Type** as is and click **Next**.
9. **Description** is optional – click **Next**.
10. Review your entry in the last step and click **Finish**.
11. Select your entry and in the bottom section, **Resources Accessible On...** click +.
12. In the dialog box, enter / (slash) into the **URL Path**, select **Path** and all subpaths (**Description** is optional), and then click **Save**.
13. Repeat all the above steps for SAP Enterprise Portal (SAP NetWeaver AS Java server).

In the next step we are going to configure a destination so that we can connect with SAP Enterprise Portal. For more information, see Configuring the Destination.

Configuring the Destination

Administrators configure a destination in their SAP Cloud Platform subaccount to set up a connection with SAP Enterprise Portal.

iNote

Please note that this feature will only be available for SAP Enterprise Portal 7.5 SP11 release.

Prerequisite

You have logged on to your SAP Cloud Platform cockpit as an administrator.

How to configure a destination

1. In the SAP Cloud Platform cockpit, go to Destinations New Destination .
2. Enter the following destination properties:

Property	Value
Name	EASY_ACCESS_MENU
Type	HTTP
URL	The URL of SAP Enterprise Portal
ProxyType	OnPremise
Authentication	AppToAppSSO

3. In the Additional Properties area, click New Property.
4. Enter the following properties manually:

Property	Value
EPContent	True
Usage	Backend

5. Save your entries.

iNote

We recommned using SAP Enterprise Portal as a content provider on an internal network only. This ensures that there is direct access from the browser to the backend systems.

In the next step we are going to configure Security Assertion Markup Language (SAML) version 2.0 for authentication purposes. For more information, see Configuring SAML2 (SSO).

Configuring SAML2 (SSO)

Administrators configure Security Assertion Markup Language (SAML) version 2.0 for authentication purposes.

iNote

Please note that this feature will only be available for SAP Enterprise Portal 7.5 SP11 release.

How to configure SAML2 (SSO) on SAP Enterprise Portal

1. Log on to SAP Enterprise Portal as administrator.
2. Go to the Configuration tab and click Authentication and Single Sign-On.
3. Go to the SAML 2.0 tab and click Enable SAML 2.0 Support.
4. In the Settings step of the wizard:
    a. In the Provider Name field, enter the name of the local provider.
    b. In the Operational Mode field, select Identity Provider.
    c. Click Next to get to the General Settings step.
    d. Click Browse to get to the Signing Key Pair. A signing key-pair is generated for the local provider. This will also be used as an encryption key.
    e. In the Select Keystore Entry screen, click Create.
    f. In the Entry Settings step of the wizard, enter an Entry Name, and select Store Certificate.
    g. In the Subject Properties step, add `portal73` as the `commonName` value, and click Finish.
    h. Go back to the previous wizard in the Identity Provider Settings tab, leave the default setting as is, and then click Finish.
5. Now log on to SAP Cloud Platform cockpit as administrator.
6. Go to Security Trust :
    a. In the Local Service Provider tab, click Edit and change the Configuration Type to `Custom`.
    b. Click Get Metadata. The XML metadata file is downloaded.
7. Log back into SAP Enterprise Portal as administrator.
8. Go to Trusted Providers, click Add and from the menu options, choose Uploading metadata file to upload the SAP Cloud Platform XML file (from step 6.2).
9. After the file is uploaded, click Download Metadata.
10. In the General Settings tab, set Legacy Systems Support (Issue Logon Ticket) to On, and Save.

How to configure SAML2 (SSO) on SAP Cloud Platform

1. Log on to SAP Cloud Platform as administrator.
2. Go to Security Trust :

a. In the **Local Service Provider** tab, click **Edit** and change the **Configuration Type** to `Custom`.

b. In the **Application Identity Provider** tab, click **Add Trusted Identity Provider**.

c. In the page that opens, click **Browse** to upload the metadata file of SAP NetWeaver Enterprise Portal that you downloaded in step 8 when configuring SSO for SAP Enterprise Portal.

d. **Save** your settings.

We have now completed the configurations in the SAP Cloud Platform Cockpit. Now we will open the SAP Fiori launchpad configuration cockpit in the Portal and create a shell plugin app. For more information, see Creating a Shell Plugin App in the Launchpad.

Creating a Shell Plugin App in the Launchpad

Administrators create a shell plugin app in SAP Fiori launchpad configuration cockpit to bring SAP Enterprise Portal content into their launchpad site.

iNote

Please note that this feature will only be available for SAP Enterprise Portal 7.5 SP11 release.

Background

Shell plugin apps are used to extend the SAP Fiori launchpad with additional functionality. In this scenario, the shell plugin app is used to bring the OData content structure from SAP Enterprise Portal into the **User Menu** in SAP Fiori Launchpad's **App Finder**.

Prerequisite

You have been designated the role of administrator (TENANT_ADMIN) for SAP Cloud Platform Portal.

Create a site

1. Log on to SAP Cloud Platform as an SAP Cloud Platform administrator.
2. In the cockpit, click (Services).
3. Scroll down and click the **Portal** service.
4. Click **Go to Service** to open the **Admin Space** of SAP Cloud Platform Portal.
5. Open the **Site Directory** from the left panel.
6. Select a SAP Fiori launchpad site. If you don't already have a launchpad site, create one by following the instructions in this link: Create an SAP Fiori Launchpad Site.

Activate the Easy Access Menu

1. From the SAP Fiori launchpad configuration cockpit, click (Settings).
2. Click **Edit** and under **End-User Settings**, set **SAP Easy Access Menu** to `Yes`.

Create a shell plugin app

1. Now click (Content Management) in the left panel and select **Apps** to open the **Manage App Configuration** editor.
2. Click + to add a new app.
3. Name the app and select **Shell Plugin** as the **App Type**.
4. Select **Enterprise Portal Content** as the **Shell Plugin Type**.

   iNote

   Enterprise Portal Content will only be available in the list if you created a destination to SAP Enterprise Portal.

5. **Save** your settings.

Now that you've completed the configuration and setup of SAP Cloud Platform Portal and SAP Enterprise Portal, your end users will easily be able to search for and add their on-premise apps to their launchpad site and\or to a launchpad page within a freestyle site.

For more information, see How End Users Find SAP Enterprise Portal Apps in the Launchpad.

How End Users Find SAP Enterprise Portal Apps in the Launchpad

End users can search for their on-premise apps in their SAP Fiori launchpad site or in a freestyle site that includes a launchpad page.

iNote

Please note that this feature will only be available for SAP Enterprise Portal 7.5 SP11 release.

Now that you've completed the configuration and setup of SAP Cloud Platform Portal and SAP Enterprise Portal, your end users will easily be able to search for and add their on-premise apps to their launchpad site and\or to a launchpad page within a freestyle site.

iNote

To ensure that the end user language displayed in SAP Fiori launchpad corresponds with the language of SAP Enterprise Portal based applications (iViews):

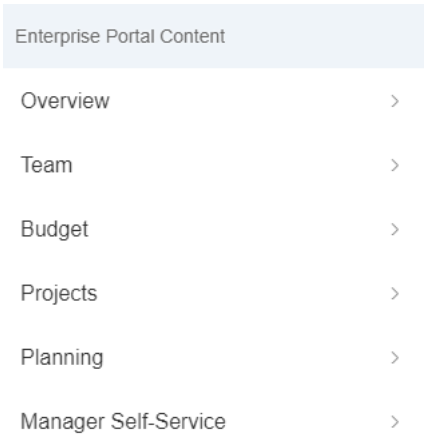
- Don't define users with a UME language.
- Don't define the `forced request language` property for the relevant iViews.

How an end user searches for and adds their on-premise apps to a launchpad site and\or to a launchpad page within a freestyle site.

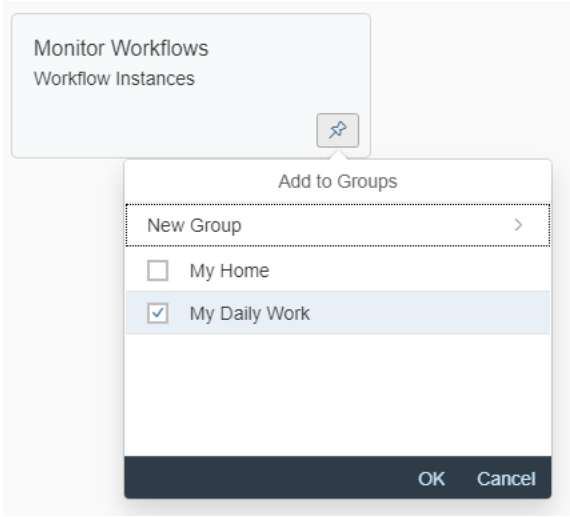
They would do the following:

1. Log on to their Portal as an end user.
2. Go to the **Me Area** of their launchpad site.
3. Select **App Finder** and then click the **User Menu** tab.

   They would see the whole structure of SAP Enterprise Portal's content (apps).



4. They would now select the apps they'd like to see on their launchpad. They do this by clicking on the pin icon and selecting the desired groups in which they'd like the app tile displayed:



5. Click **OK** to add the tile to their launchpad site.
6. Repeat the process to add more apps (tiles).
7. Click the tiles on their launchpad to open their apps in a new window.

Get Support - Portal on Neo

If you have questions or encounter issues while working with the Portal, you can address them as described below.

Check if your issue is documented

Before seeking support from external resources, check if the issue is already addressed here:

- Frequently Asked Questions
- Conventions, Restrictions, and Limitations

Search for solutions in support medias:

Depending on your subaccount, you can use the following support media:

Developer Subaccounts	Customer and Partner Subaccounts
Developer Community	• Developer Community • SAP Support Portal (An S-user is required to log in and file an incident) • SAP Idea Place

Report an incident (issue)

1. Log into the SAP Support Portal
    a. Open SAP Support Portal.
    b. Choose **Report an Incident**. The SAP ONE Support Launchpad opens.
    c. Perform a search to check whether a similar incident was already reported.
    d. Choose **Contact SAP Support**.
    e. In the **Customer Number** field, enter the number related to your SAP Cloud Platform Portal contract.
    f. In the **S-User ID** field, enter your S-user (example: `s1234567890`). A form opens where you fill in details about the incident.
2. Provide incident details
    a. Select your language, set priority of the incident, and enter a subject. Note that if you set a high or very high priority, you also have to describe the business impact of the incident.
    b. To help the support team process your issue as fast as possible, please provide the following information in the **Description** field:
        - Subaccount Organization
        - Subaccount ID
        - SAP Cloud Platform Landscape
        - System URL
        - Login user and password to reproduce the incident
        - Reproducible steps
        - The response of the system
        - The expected results
        - Whether the problem occurred after you performed a specific action (and what this action was)
        - Did the problem occur on a system different from the productive one (Development, QA)?
        - Affected users
        - Problem severity. Must the problem be solved urgently? If so, why?
        - All available log and trace files
        - Relevant screenshots
    c. From the **Installation** dropdown list, select HANA CLOUD.

    > **Note**
    > Select the correct installation type (HANA CLOUD), so that the correct support SLA is applied to your case.

    d. From the **System** dropdown list, select the affected system.
    e. From the **Component** dropdown list, select the component name of the area that fits best to your issue. Selecting the correct component directs your issue to the corresponding support team:

Component	Description
EP-CPP-NEO-FS	Freestyle sites on Neo
EP-CPP-NEO-SFC	SAP Fiori launchpad sites on Neo. Use this component to report also issues in SAP Fiori Cloud.
EP-CPP-NEO-FCC	Fiori Configuration Cockpit on Neo
EP-CPP-NEO-EXT	Extension solution on Neo
EP-CPP-OPS	Operation and configuration

    f. The reporter details are filled in automatically, but you can also define additional contacts.
    g. When ready, choose **Submit** to create the incident.

    > **Note**
    > If you have problems creating and sending an incident, or your ticket is not processed as fast as you need, contact the 24/7 phone hotlines. See SAP Note 560499.

Frequently Asked Questions

Answers to frequently asked questions regarding the SAP Cloud Platform Portal.

SAP Fiori Launchpad

Common Issues

Use the following Knowledge Base Articles (KBAs) for the following common customer issues:

KBA	Description
2390413	SAP Mobile Docs - error 403
2390453	The user ID is showing instead of the user name
2390988	The Portal is missing from SAP Cloud Platform
2363135	Portal authorization error
2363067	Refresh widgets and apps

Why do I receive an HTTP 400 error - Service Provider endpoint saml2/sp/acs could not redirect to original application URL because it could not get the RelayState value from the request?

There is an issue with the IdP (SAP ID, ADFS, and so on). Please open a BCP incident on component BC-IAM-IDS.

Why do I receive an HTTP 401 error when trying to open the SAP Fiori configuration cockpit?

In the SAP Cloud Platform cockpit, in the Trust setting, select Enable Principal Propagation.

Why do I receive an HTTP 403 error when trying to open the SAP Fiori launchpad configuration cockpit?

You are probably not assigned as TENANT ADMIN. Go to Services Portal Configure Portal service Roles and add the user to the TENANT ADMIN list.

Why do I receive an HTTP 500 error when trying to open the SAP Fiori configuration cockpit?

Make sure the TENANT ADMIN user is defined correctly. For example, check for spelling mistakes. Check also that the trust settings are set to default.

Why do I receive an HTTP 503 error when trying to open the SAP Fiori configuration cockpit?

The subscription to flp<app> is missing (for example, flpnwc). Open a BCP ticket on EP-OD-CP and ask for a new subscription.

How do I create an app that accesses external resources?

SAP Fiori launchpad on cloud provides an automatic routing mechanism for accessing external resources.

Map the app's routing in its `neo-app.json` file, in the `routes` section. You need to provide two mappings for each route: one for launching the app from the launchpad, and another for testing the app standalone.

In the following sample, the first route is for launching the app from the launchpad, and the second route is for testing the app standalone.

Sample Code

```
routes: [
...,
{
                path: "/sap/ui5/1/resources/sap/hcm",
                target: {
                                type: "application",
                                name: "myApp",
                                entryPath: "/sap/hcm"
                },
                description: "SAP HCM UI5 library"
},
{
                path: "/resources/sap/hcm",
                target: {
                                type: "application",
                                name: "myApp",
                                entryPath: "/sap/hcm"
                },
                description: "SAP HCM UI5 library",
},
...
]
```

When launching an SAPUI5 application from the launchpad, an error message "Could not open app. Try again later" with the error code 404 appears in the console at runtime. What is the problem?

There are several reasons for this issue:

- Make sure that the `Component.js` and `Component-preload.js` files are located under the root folder.
- Make sure that `jQuery.sap.registerModulePath` is used in the application's code.
- The application is using a custom SAPUI5 library, which doesn't exist yet on the cloud.

An application with a parameter that has a default value is not running as expected. What could cause this problem?

If in the Parameters tab of your app configuration, you defined a Default Value for a parameter, and your app is not running as expected, check the runtime URL. If the parameter appears in the URL with an empty value, you need to go back to the Parameters tab of your app configuration (in the launchpad configuration cockpit) and copy the content of the Default Value column to the Launcher Value column. Then publish the site, and try running the app again.

An application's code, deployed to SAP Cloud Platform using SAP Web IDE, is not updated in the launchpad. What causes this problem?

This issue occurs when there is more than one HTML5 app in your SAP Cloud Platform subaccount with the same component name (which is composed of namespace + appName) or the same AppID (see in the `manifest.json`). Make sure that the component name and the AppID of HTML5 apps deployed on your subaccount are unique.

Authentication/Trust Configuration/Custom Domain Configuration

After we changed our subaccount to use SCI as an IdP, we lost all privileges on the Portal service. What happened?

Verify that the Principle Propagation value under your SAP Cloud Platform subaccount trust setting is set to "Enabled".

For more information, see Enable Principal Propagation.

After configuring ADFS as an IdP, we started facing an issue when trying to access the Portal service Site Directory. The Site Directory opens, but as an empty page. Did we lose the authentication?

Please review and update the ACS URLs in the ADFS records. The URLs should match the paths taken from your SAP Cloud Platform subaccount's Trust Settings.

For more information, see: ID Federation with the Corporate Identity Provider.

When navigating to runtime, user enters as a guest instead of getting the login page. How come?

Check if one of the catalogs includes the Anonymous role. If it does, delete it.

Why do I get an error 500 when trying to launch an HTML5 application with a non-authenticated user?

SAP Cloud Platform added a security constraint, which requires applications and widgets to "declare" that they are available for non-authenticated access.

This can be done by adding the property `"authenticationMethod": "none"` in the application's `neo-app.json`.

For more information, see: Authentication.

Why is an HTML5 app code that is deployed using SAP Web IDE not updated in the launchpad?

There could be three reasons for this issue. The first reason is that the launchpad is displaying content from the cache. When the admin accesses the launchpad configuration cockpit, it is automatically refreshed and the cache invalidation process is automatically triggered. If you are not sure if this is the issue, you can always manually clear the cache. For more information, see: Clearing the App Cache.

The second reason can be that there are issues in the application's replication. Access the **App Resources** page in the site's configuration cockpit and check the replication report. The link is available at the header of the screen. This report shows potential issues, such as a `manifest.json` file that is not located under the root folder.

The third reason is that in the subaccount there is more than one HTML5 app with the same component name. Component name = namespace + appName. Having several apps with the same component name is not supported in the launchpad. All apps can have the same "namespace", but each one should have a unique appName.

After logout from SFSF the portal session is not invalidated and you are not logged out from SAP Cloud Platform. What can be the reason for that?

Check in your browser's settings, if blocking of third party cookies is enabled. If it is, then disable it. Also, check for invalid ACS URLs in SFSF Provisioning system. The logout URL should be based on the SAP Cloud Platform metadata.

VM Allocation

What is the recommended number of VMs (virtual machines) for a customer subaccount?

This depends on your application needs and on the expected load on production. There is no “one size fits all” recommended setup. You can use the following guidelines:

- On development or test systems - 1 lite VM per Java application
- On a validation system - 2 premium VMs per Java application
- On a production system - at least 2 premium VMs per Java application. “At least” refers to both the number of VMs and to the size of the VMs. This depends on your expected load, how heavy the application is, how much memory it requires, and so on.

For more information, see the SAP Cloud Platform VM specs: `https://help.hana.ondemand.com/help/frameset.htm?7612fbaf711e1014839a8273b0e91070.html`

Is there a sizing calculator that suggests the number of VMs for an environment?

There is no calculator. You need to monitor your VMs in the SAP Cloud Platform cockpit and decide whether to increase the number of VMs. Note that the VMs are needed only for Java applications. HTML5 applications are deployed using a GIT repository, and there you don’t need to assign a quota to any subaccount as the default quota is enough. A Java application can consist of multiple servlets. Any bundle of WAR files that you deploy to SAP Cloud Platform using a single deploy command is considered as a single application.

Why is the New subaccount button missing from my Subaccount's tab in the cockpit?

There are no VMs allocated to this subaccount. Please purchase additional VMs.

SAP Web IDE

When I try to register an application to SAP Fiori launchpad, it cannot go to the next step. When I click the Next button, nothing happens.

Make sure not to use any special characters in the application name. Only letters and digits are allowed.

How can I remove the header from an SAP Fiori launchpad site?

In the site template, there is a `shell.json` file. The property `sap.flp/config/ushellConfig` is a JSON file serialized to a string. If it does not exist, create it. To removed the header, use the following:

Sample Code

```
"renderers": {
    "fiori2": {
        "appState": "headerless"
    }
}
```

Alternatively, you can use the following parameter in the URL: `appState=headerless`.

I get an error "HTTP Status 403 - You are not authorized to access this resource" when trying to access SAP Web IDE from a subaccount that is connected to another IdP.

Note that you need to be an SAP Cloud Platform subaccount administrator to perform the following tasks.

If you are using the default trust settings on your SAP Cloud Platform subaccount (authenticated via SAP ID), make sure that your user ID is assigned to the Developer role under the subaccount members list.

If you are using a custom Identity Provider as a trusted IdP for your SAP Cloud Platform subaccount trust settings, then perform the following:

1. On your SAP Cloud Platform subaccount cockpit, go to **Subscriptions** **Subscribed HTML5 Applications** **webide (application)** **Roles** .
2. Create a new role.
3. Assign users to the role with the same user identifier as your custom Identity Provider assertion parameters.
4. Go to **Overview** **Application Permissions** **Edit** .
5. Change the **Assigned Role** and assign the new role you created and save.

   All users assigned to that role will be granted permissions to access SAP Web IDE.

Alternatively, you can assign the Everyone role to the **Application Permissions**, which will allow any authenticated user to access the SAP Web IDE application.

After importing apps into SAP Web IDE, I don't have an option to 'convert to Portal Service Component'. It looks like the Portal plug-in isn't enabled.

Check that the URL, which is part of the "cpv2_plugin_dest" destination file located in the subaccount level, is configured correctly, with the right subaccount name.

For more information, see the how-to guides located here.

Subaccount

Why is the New Account button missing from my account's tab in the cockpit?

There are no VMs allocated to this account. To create a new subaccount, use the Console Client. For more information, click here.

To download the Console Client, go to `https://tools.hana.ondemand.com/`, and under **Cloud**, **SAP HANA Cloud Platform Tools**, download the latest Java Web SDK.

Running an iFrame Inside SAP Cloud Platform Portal

How do I run an iFrame inside the SAP Cloud Platform Portal?

In the SAP Cloud Platform Portal, the layout is based on SAPUI5 technology. You need to build an empty SAPUI5 application in which to run the iFrame. This SAPUI5 application should be deployed on the SAP Cloud GIT repository. You can access this application from SAP HANA Cloud Platform, Portal Service, and consume it inside a page, as a widget or as a full page application.

Miscellaneous

Is it possible to use the SAP ID service and another IDP (Identity Provider) in parallel?

SAP allows you to configure the SAP ID Service as the default IDP and an additional trusted identity provider. In this setup, the additional trusted IDP can only be used for IDP-initiated SSO (Single Sign-On). For more information, see Configure IDP-Initiated SSO.

When you choose the SAP ID service as the default trusted IDP, you need to provide the IDP only with the Service Provider name and a valid ACS (Assertion Consumer Service) URL that points to the application's root URL on SAP Cloud Platform:

- Trial Landscape: `https://nwtrial.ondemand.com/services`
- Factory Landscape: `https://netweaver.ondemand.com/services`

When embedding an SAPUI5 application with an image in the launchpad on the portal, the image does not display.

In your application, place the image under the `webapp` folder and use an absolute path, starting with '/'. For example:

```
<Image width="140px" height="140px" id="_image0" src="/assets/image1.JPG"/>
```

I need to provision my account to the SAP Cloud Platform Portal; I need to provision my account to the SAP Fiori Cloud service

This depends on the SAP Cloud Platform landscape.

PROD

Every PROD account, including subaccounts, has the Portal available by default. An account owner needs to enable the service manually and a default provisioning to the Portal will take place. If a non-default provisioning is required, fill the provisioning request form: `http://cpops.tlv.sap.corp:8080/PR/`

Trial

Every Trial account has the Portal by default. An account owner needs to enable the service manually and a default provisioning to the Portal will take place. There is no option to create a subaccount on Trial or a provisioning type other than default.

Factory

A customer who has purchased an SAP Cloud Platform Portal or SAP HANA Fiori Cloud Edition solution, gets the Portal by default, with the provisioning type based on the purchased license. Every subaccount gets the Portal available by default. An account owner needs to enable the service manually and a default provisioning to the Portal will take place.

- If a subaccount does not get the Portal by default (may happen for old accounts), the customer needs to open a BCP ticket on EP-OD-CP to enable it, with the following details:
  - SAP Cloud Platform Account Landscape (EU/US1/US2/AP1)
  - SAP Cloud Platform Organization ID
  - SAP Cloud Platform Account ID
- If a non-default provisioning is required, the customer needs to open a BCP ticket for EP-OD-CP with the following details:
  - SAP Cloud Platform Account Landscape (EU/US1/US2/AP1)
  - SAP Cloud Platform Organization ID
  - SAP Cloud Platform Account ID
  - SAP Cloud Platform Portal provisioning type
  - Description of the request (why is this provisioning required)
  - An approval that the users i048690 and i309025 were added as account administrators to complete the provisioning. The users can be removed once the provisioning is done.

How can I change the favicon and the browser tab title for SAP Fiori launchpad?

To change the favicon and browser tab title, use the following jQuery commands and launch them from a shell plug-in:

jQuery('head title').text("New title for the tab");

jQuery.sap.setIcons({favicon: "http://materialdesignblog.com/wp-content/uploads/2015/04/387b93c8b66379c32e1cc2b98dcf5197.png"}); //this is the standard SAPUI5 way to change the favicon

Conventions, Restrictions, and Limitations

Check this list to get the latest information about Portal conventions, restrictions, and limitations.

Description	Category	Area	Feature	More Information
Use Web Content widgets when creating sites	Convention	Freestyle	Standard widgets	SAP's out-of-the-box widgets are organized into two groups in the widget gallery; Standard Widgets and Web Content Widgets. Web Content Widget are more advanced as they have predefined content and layout, making it easier to design your Portal site. They can also be edited in a dedicated Web Content Editor tool, which is also available to non-admin roles. Since most of the Standard Widgets have already been replaced by Web Content Widgets, we strongly recommend using Web Content Widgets when creating new sites. Two exceptions are the HTML widget and the Login widget These are standard widgets that can still be freely used.