

SAP API Management, Hybrid Deployment



Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER .

Document History

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1 For API Management Hybrid Customers

SAP Cloud Platform API management can connect to your SAP API Management, on premise and help you manage your APIs from one place.

A Hybrid deployment model allows SAP customers to manage lifecycle of APIs from one unified cockpit - SAP Cloud Platform API Portal - while you can deploy the APIs either in the cloud or on premise private data centers. You should be using the SAP API Management on premise version SP05 to deploy APIs to SAP Cloud Platform API Portal.

1.1 Configure Cloud Connector

Prerequisite:

Set up Cloud connector version 2.9 and above. For Installation, refer [Link](#)

Add an Account for the subscriber account. For more information, refer [Link](#)

In this section, we will configure the on premise runtime system which will be exposed via Cloud connector to SAP Cloud Platform.

Consider the Management Runtime URL is <http://runtime.servername.com/v1>

Configure cloud connector under Access Control -> "Cloud To On-Premise" Add new "Mapping Virtual To Internal System" with following details:

Type: Non-SAP System

Protocol: HTTPS

Principal Type: None

For Example:

Internal Host: "runtime.servername.com:443"

Virtual Host: "runtime.virtualhost.com:888"

Resources Accessible Configuration of Internal Host:

Configure above created mapping with URL Path: "/" to allow all Path and all sub-paths

The screenshot shows the 'Cloud To On-Premise' configuration page in SAP API Management. It features a navigation bar with tabs: ACCESS CONTROL, COOKIE DOMAINS, TRUSTED APPLICATIONS, and PRINCIPAL PROPAGATION. The main content area is titled 'Mapping Virtual To Internal System' and contains two tables. The first table lists mappings with columns: Status, Virtual Host, Internal Host, Check Result, Protocol, Back-end Type, and Actions. A single mapping is shown with a green status, a redacted virtual host, a redacted internal host, a 'Reachable' check result, 'HTTPS' protocol, and 'Non-SAP System' back-end type. The second table is titled 'Resources Accessible On canaryonpremsys:888' and has columns: Enabled, Status, URL Path, Access Policy, and Actions. A single resource is shown with 'Enabled' checked, a green status, a '/' URL path, and an 'Access Policy' of 'Path and all sub-paths'.

With these configurations, an on premise runtime system will be exposed to Cloud via Cloud connector with access details: "https:// runtime.virtualhost.com:888/v1" .

1.2 Configure Destination to Runtime

During the API Management setup, a destination file for the corresponding subscriber would be created under API Portal Providers context. This configuration file would be supplied to you via support incident.

- Provider Account->Java Applications->API Portal Application->Destinations tab.

Download the same destination file from the incident and Import under Subscriber account -> Destinations tab and modify the following details.

- Name: < Do not change the Name>
- Type: HTTP
- URL: <Enter the URL as configured in above step> ex. https:// runtime.virtualhost.com:888/v1
- Proxy Type: OnPremise
- Authentication: BasicAuthentication
- User/Password: < enter the Login credentials of an Organization Admin user configured in On Premise Runtime System>

1.3 Configure on-Premise Runtime

In the [Onboarding Guide](#) please refer to section 3.6 for Testing Install and 3.7 for Org provisioning.

1.4 Configuration by SAP Cloud Ops Team

During API Management on-boarding, the below listed configurations will be carried out for the on-premise customer by SAP Cloud Ops Team:

- Configuration for the subscriber under Environment service on Provider level context.
- Configuration for the subscriber under Virtual Host service on Subscriber level context.

To get these configurations done for you, raise a service ticket.

1.5 Configuration for Test Console

You can use the test console and test the APIs deployed on your on-premise runtime, by performing the following steps:

Note:

Use this procedure only for hybrid scenarios.

1. Expose your runtime virtual host and port to be accessible through internet via cloud connector.

You can obtain the runtime virtual host and Url from API Proxy Url. API Proxy Url is available after you have deployed your API.

For example, in the following API Proxy URL, <https://saptest.mo.sap.corp:443/GPNODATAORGServ>, the runtime virtual host is "saptest.mo.sap.corp" and the port is "443".

Consider the Virtual host URL <https://saptest.mo.sap.corp:443>

Configure cloud connector under *Access Control -> "Cloud To On-Premise"* with following details:

Type: Non-SAP System

Protocol: HTTPS

Principal Type: None

For Example:

Internal Host: "abc.servername.com"

Virtual Host: "saptest.mo.sap.corp"

Virtual Port: 443

Internal Port: 888

Configure above created mapping with URL Path: "/" to allow all Path and all sub-paths

With these configurations, an on premise runtime system will be exposed to Cloud via Cloud connector with access details: "https:// abc.servname.com:443"

-
2. Run the following service in the standard REST console. The service creates a mapping between the exposed cloud connector URL and virtual host URL.

Role: APIPortal.Administrator

Service: <API Portal Base

URL>/apiportal/plugins/1.0/TestConsole.svc/DestinationAndUrlMappings

Method: POST

```
Payload: {
  "id" : "000001,"
  "cloudConnectorUrl": "<http://abc.servername.com:888>",
  "url" : <virtual host url>
}
```

Note:

- o cloudConnectorUrl and url fields are mandatory.
- o You can obtain the virtual host URL from API Proxy URL.
For example, in the API Proxy URL <https://saptest.mo.sap.corp:443/GPNODATAORGServ>, virtual host URL is <https://saptest.mo.sap.corp>.

3. Run the following service in the standard REST console. The service creates a mapping between the exposed cloud connector URL and virtual host URL.

Role: AuthGroup.API.ApplicationDeveloper or AuthGroup.ContentAuthor

Service: <Dev Portal Base URL>/plugins/TestConsole.svc/DestinationAndUrlMappings

Method: POST

```
Payload: {
  "id" : "000001,"
  "cloudConnectorUrl": "<http://abc.servername.com:888>",
  "url" : <virtual host url>
}
```

Note:

- o cloudConnectorUrl and url fields are mandatory.
- o You can obtain the virtual host URL from API Proxy URL.
For example, in the API Proxy URL <https://saptest.mo.sap.corp:443/GPNODATAORGServ>, virtual host URL is <https://saptest.mo.sap.corp>.

2 Hybrid Installation Procedure

To manage lifecycle of APIs from one unified cockpit, you need to disable on premise UI which gets installed as part of the standard APIM installation.

2.1 Prerequisite

The Edge setup utility (apigee-setup) should be installed as mentioned in the [Onboarding Guide](#).

Note:

Ignore any reference to SAP Edge UI in SAP APIM documentation.

2.2 Hybrid Installation

Install all Edge components as per [Onboarding Guide](#) until section 3.5.3.1.

Disable UI

After section 3.5.3.1 in the onboarding guide is complete, following are the steps to uninstall the UI from the Management Server nodes.

1. Stop the edge-sap-ui service.

```
# /opt/apigee/apigee-service/bin/apigee-service edge-sap-ui stop
```

2. Check for existence of edge-sap-ui RPM.

```
# rpm -qa|grep edge-sap-ui
```

3. Remove edge-sap-ui RPM

```
# rpm -e edge-sap-ui
```

4. The below command should not return any rpm for edge-sap-ui

```
# rpm -qa|grep edge-sap-ui
```

Upgrade/Patch without UI

While performing any upgrades or applying patches on Hybrid APIM one can ignore any change specific for Edge SAP UI in the APIM documentation.

SKIP the below step to update UI and continue with rest of the steps as usual.

```
# /opt/apigee/apigee-setup/bin/update.sh -c ui -f configFile
```

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