

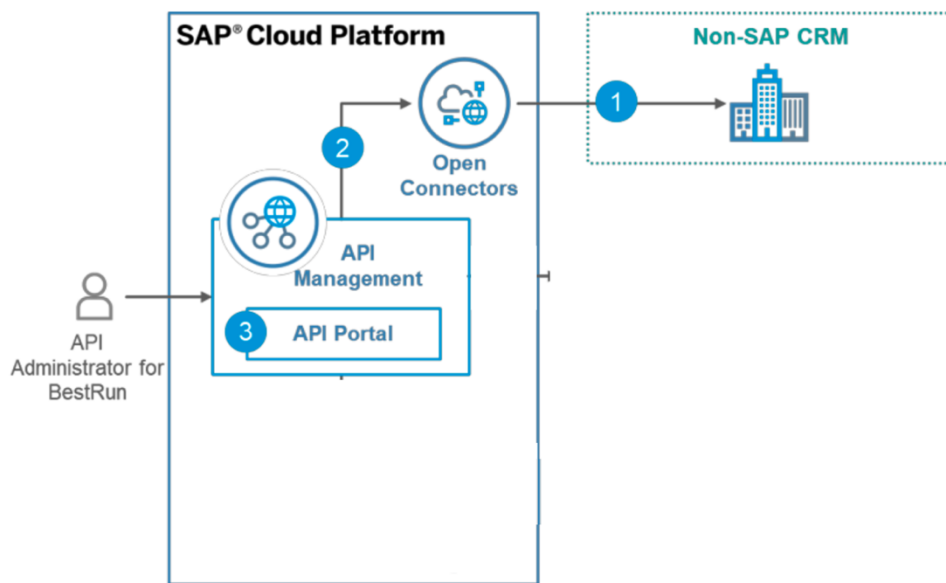
Exercise 3.1: Connect to non-SAP CRM System from SAP Cloud Platform Open Connector


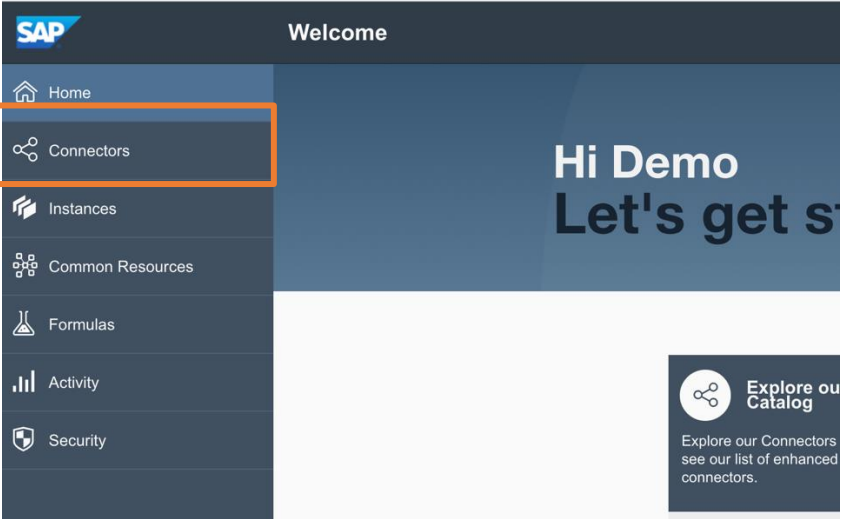
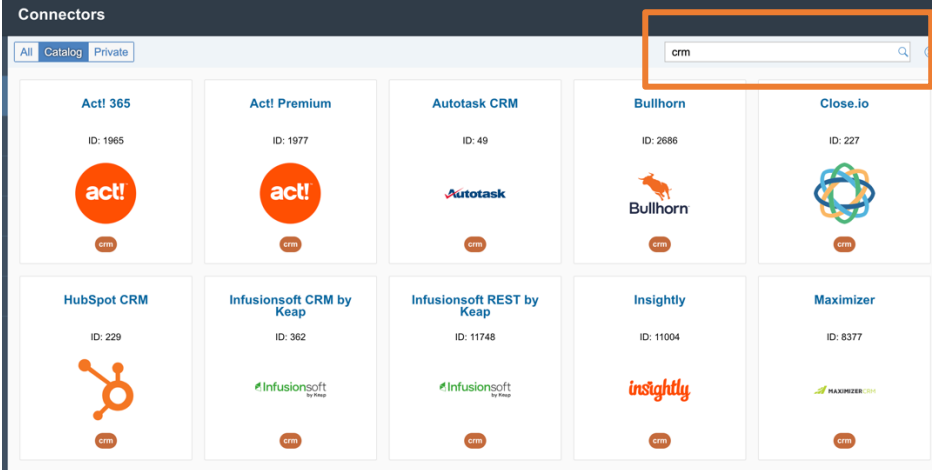
Overview

BestRun AG would like to expose the APIs from their non-SAP CRM system like information about their customers, latest address and communication information about their customers, upcoming deals to enable their business users to query for this information and build customer insights using SAP Analytics Cloud. BestRun AG plans to use SAP Cloud Platform API Management to securely expose their APIs from non-SAP CRM system. Furthermore, they plan to use the analytics features of SAP Cloud Platform API Management to gain insights into the usage of the APIs by their business users.

In this exercise you will configure the following for BestRun AG :-

1. *Connect to non-SAP CRM system of BestRunAG using **SAP Cloud Platform Open Connectors**.*
2. *Create an API Provider of type **Open Connectors** in SAP Cloud Platform API Management to discover & explore all the created instances from SAP Cloud Platform Open Connectors.*
3. *Apply the BestRun IT governance policy of Quota, Spike Arrest and Verify API Key to the non-SAP CRM connector instance.*



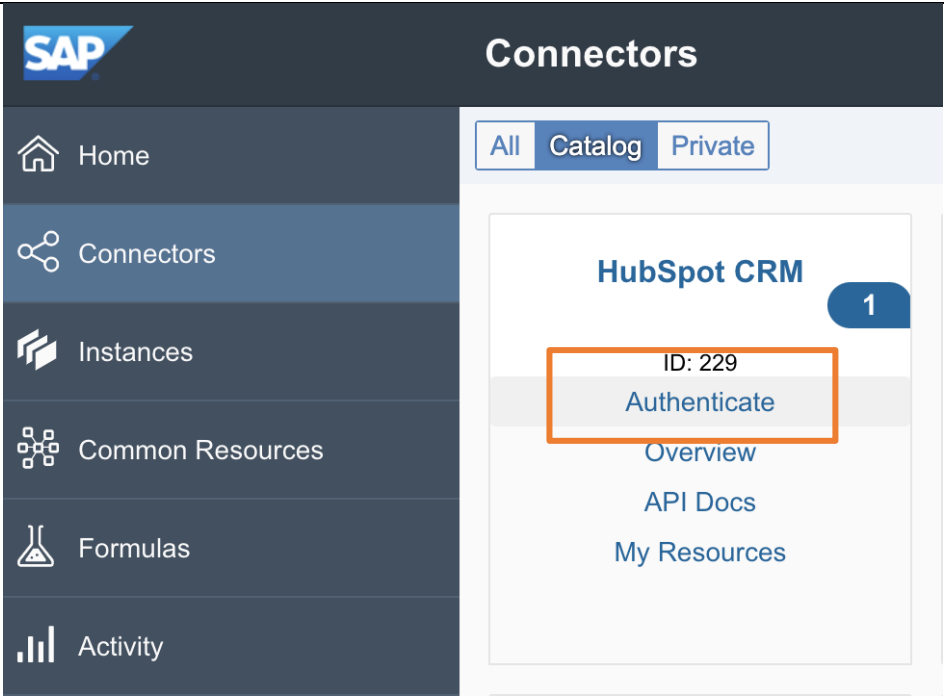
Step	Explanation	Screenshot
1	<p>SAP Cloud Platform Open Connectors provides 160 connectors to non-SAP cloud application.</p> <p>To explore all connectors, click</p> <div> Connectors</div> <p>From the landing page you can explore the catalogue of pre-built connectors to non- SAP cloud application or explore the interactive API documentations of the connectors or explore the advanced features like creating your own common resources model.</p>	
2.	<p>In SAP Cloud Platform Open Connectors you will find connectors to all the top non-SAP cloud applications. These connectors are grouped based on what we call as hubs. You can search for all connectors in a given hub, by simply typing the name of the hubs like CRM, finance, helpdesk, documents, social and more.</p> <p>Enter crm in the text field to view all non-SAP CRM connectors.</p> <p>The full list of available connector is available in our help documentation</p>	

3. In order to consume the selected connector, the first steps start with creating an authenticated instance of the selected connector and providing your non-SAP tenant details & credentials.

In this exercise, HubSpot CRM has been used, hover over the HubSpot CRM connector and click **Authenticate**

to connect to your HubSpot account.

You can use any of the non-SAP CRM connectors, if you the necessary sandbox or system access to the non- SAP CRM system.

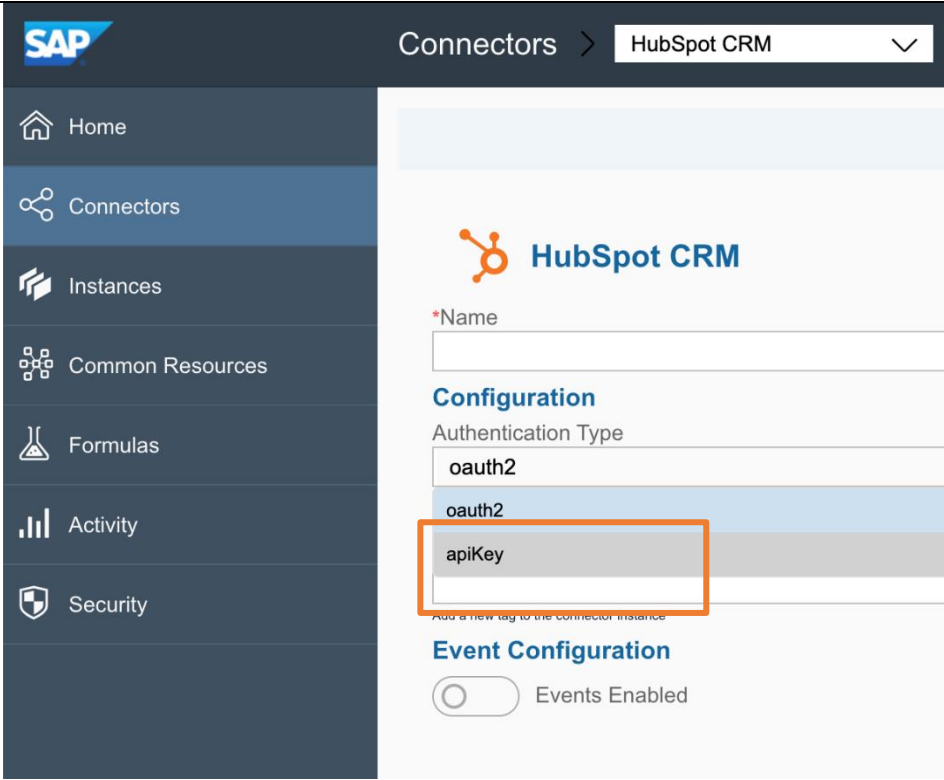


4. The connection wizard is generated automatically based on the selected non- SAP connector & the supported authentication by the non-SAP connector. If you are using a different non-SAP application, the wizard screen may vary.

You can select the authentication type of your choice.

In case of HubSpot CRM, the apiKey based authentication approach is used.

Select **apiKey** from the drop down.



5. Enter **BestRunCRM** in the Name text field.

SAP Connectors > HubSpot CRM > Create

Home Connectors Instances Common Resources Formulas Activity Security

HubSpot CRM

*Name
BestRunCRM

Configuration
Authentication Type
apiKey

Connector Instance Tag

Show Optional Fields

Event Configuration
Events Enabled

6. Click **Show Optional Fields** to enter the HubSpot CRM integration or api key

SAP Connectors > HubSpot CRM > Create

Home Connectors Instances Common Resources Formulas Activity Security

HubSpot CRM

*Name
BestRunCRM

Configuration
Authentication Type
apiKey

Connector Instance Tag

Show Optional Fields

Event Configuration
Events Enabled

7. 🖐️

BestRun AG IT team has already created an integration key **0ae02c27-ba47-4900-b2ab-87db6f5f30e6** on their non- SAP CRM system which you can use in this exercise.

Steps to get your own sandbox HubSpot account is captured in this [blog](#).

HubSpot CRM

*Name
BestRunCRM

Configuration
Authentication Type
apiKey

Hide Optional Fields

Hubspot API Key
0ae02c27-ba47-4900-b2ab-87db6f5f30e6

Create Bulk Properties for Migration
false

Instance Variables
1 Insert JSON object for variables here

Revisions Cancel Create Instance

8. Click **Create Instance** to create an authentication to the selected non-SAP CRM system.

The screenshot shows the 'HubSpot CRM' configuration page. At the top, there's a 'Name' field with the value 'BestRunCRM'. Below it is the 'Configuration' section. The 'Authentication Type' is set to 'apiKey'. There's a 'Hubspot API Key' field. Below that, 'Create Bulk Properties for Migration' is set to 'false'. At the bottom, there's an 'Instance Variables' section with a table containing one row with the value 'Insert JSON object for variables here'. At the bottom right, there are 'Cancel' and 'Create Instance' buttons, with the 'Create Instance' button highlighted by an orange box.

9. In SAP Cloud Platform Open Connectors, we provide the interactive API documentation to the pre- built connectors. Once you create an authenticated connector instance to your non-SAP application you could Test the API Docs using the generated OpenAPI (Swagger) documentation. Click

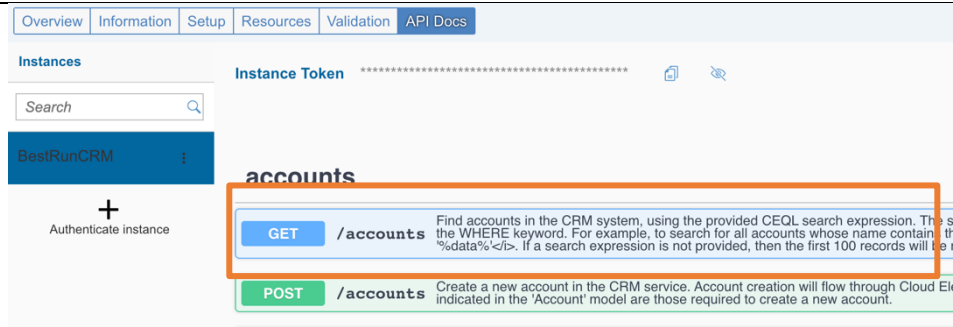
Test in the API docs

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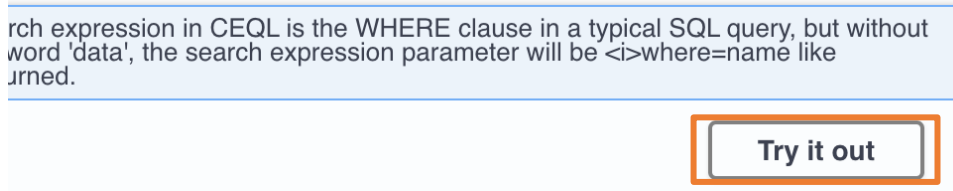
to test the newly created non-SAP CRM connector instance.

The screenshot shows the SAP Cloud Platform Open Connectors interface. The top bar has 'SAP' and 'Connectors > HubSpot CRM'. The left sidebar has a menu with 'Home', 'Connectors', 'Instances', 'Common Resources', 'Formulas', 'Activity', and 'Security'. The main content area has a green notification bar that says 'Nice work! You've successfully created a HubSpot CRM connector instance'. Below it, there's a text prompt 'Testing your connector instance in the API docs is the quickest way to see your data'. At the bottom, there's a button labeled 'Test in the API docs' which is highlighted by an orange box. Below the button is a code icon '<>'. The entire interface is shown within a dark-themed sidebar.

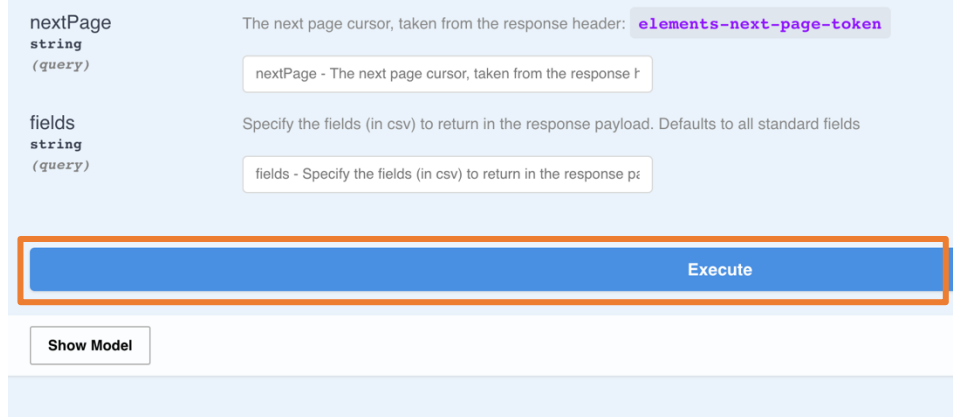
10. Click **GET /accounts** to fetch all accounts from the selected non-SAP CRM system. SAP Cloud Platform Open Connectors provides harmonized URIs for the connectors based on the Hubs that they are part. That is, all the connectors of the CRM Hubs would have the resources called as /accounts which will return companies resources. The advantage of this harmonization is that irrespective of the non-SAP CRM connector that you would select the URI to get the list of companies would be **/accounts**. Similar URI harmonization is being done for documentation hub, where the you would see the harmonized URIs like /files, /folders.



11. Click **Try it out** to test the list of accounts.



12. Click **Execute** to try out the selected resource from your non-SAP CRM connector



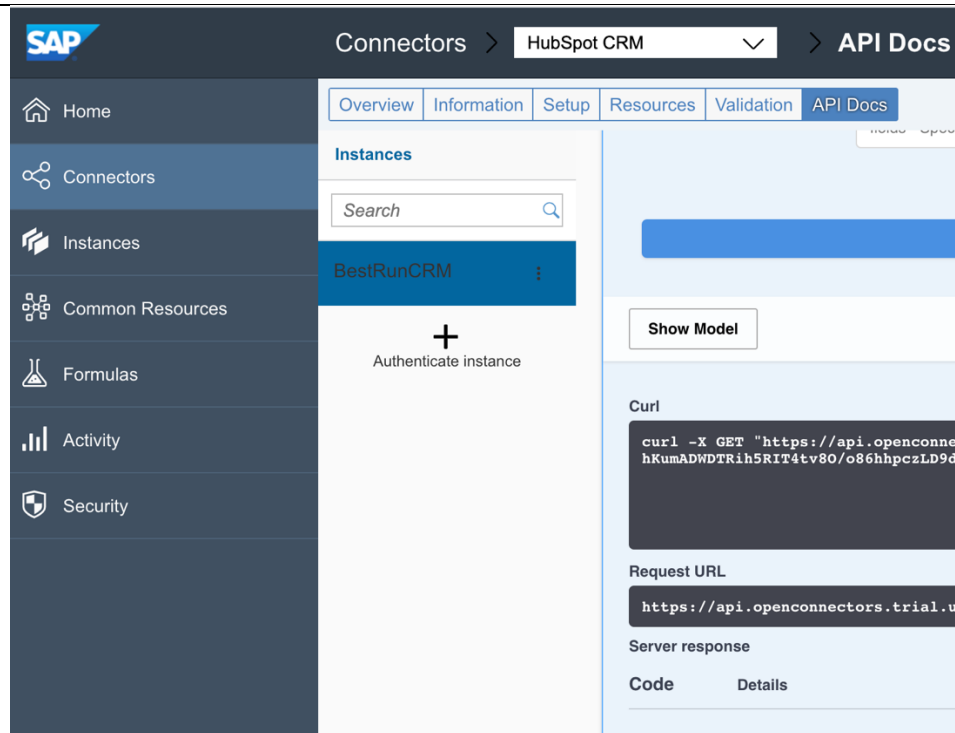
13. This would show the **CURL** command with the harmonized RESTful URIs to your HubSpot application and the normalized authentication token which can be used to securely and seamless connect to your HubSpot application.

Note: The harmonized URIs and authentication headers can be used to connect securely to your HubSpot application via SAP Cloud Platform from any application that supports connecting to an HTTP endpoint.

To simplify the application & integration development, the CURL command is generated. The CURL command would contain information about the fully qualified URL, authorization token, request payload (in case of POST, PUT/PATCH) call. For the get list of accounts call, you could also notice the harmonization of pagination done using pageSize and search using where query parameters.

The advantage of this harmonization is that irrespective of which non- SAP CRM connector that you may have selected (SugarCRM, Salesforce, Zoho, HubSpot..) you would have same way of getting filtered list of records.

The default response received from the non-SAP connectors is passed as is. With common resource (common objects), you can transform fields provided by their non-SAP applications to a single, normalized resource.



	<p>Congratulations, you have successfully created and tested an authenticated connector instance to the non-SAP CRM system used by BestRun AG.</p> <p>In the next exercise, you will managing this non-SAP CRM connector using SAP Cloud Platform API Management.</p>	
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Continue to [Exercise 3.2 - Add API Provider of type Open Connector](#)