Integrating SAP Hybris Cloud for Customer with SAP Hybris Marketing using SAP HANA Cloud Integration
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1 Integrating SAP Hybris Cloud for Customer with SAP Hybris Marketing using HANA Cloud Integration

About this Document

This document describes how to integrate SAP Hybris Cloud for Customer with SAP Hybris Marketing using SAP HANA Cloud Integration (HCI). The document is intended only as a guide to help you prepare and apply the steps necessary for successful integration. Before you start working through this document, ensure that you have downloaded the most recent version of this document available on SAP Service Marketplace.

Note

In this document, SAP Hybris Marketing system is represented as the SAP on-premise system.

For information on how to set up SAP Hybris Cloud for Customer, review the IT Setup Guide on SAP Service Marketplace. You can access any presentations, demos, YouTube videos, and how-to guides containing information on SAP Hybris Cloud for Customer on SAP Community Network (SCN).

What’s New in SAP Hybris Marketing Integration

No significant changes to the solution in this release.

Integration Scenario Overview

Master Data and Basic Replication

The accounts, contacts, and individual customers are replicated from SAP Hybris Cloud for Customer to SAP Hybris Marketing. Also, the leads activities and opportunities are replicated from SAP Hybris Cloud for Customer.
to SAP Hybris Marketing.

### SAP Cloud for Customer

- Accounts, Contacts
- Individual Customers
- Lead
- Opportunity

### SAP Hybris Marketing

- Contacts
- Lead Interactions
- Opportunity Interactions

**Table 1:**

<table>
<thead>
<tr>
<th>If you have replicated the following in SAP Cloud for Customer:</th>
<th>You can view them under Data Management work center, as the following in SAP Hybris Marketing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>Corporate account</td>
</tr>
<tr>
<td>Contact individual</td>
<td>Contact</td>
</tr>
<tr>
<td>Customer</td>
<td>Consumer</td>
</tr>
</tbody>
</table>

All the leads and opportunities created in SAP Hybris Cloud for Customer are replicated as interactions in SAP Hybris Marketing. These interactions can be used in segmentation. Both initial load and delta load is supported for business partners, whereas only delta load is supported for leads and opportunities.

### Call Center Scenario

The scope of the scenario is to create a call center campaign in SAP Hybris Marketing, and execute the campaign in SAP Hybris Cloud for Customer.
1. In SAP Hybris Marketing, create a target group of business partners for whom you want to run a campaign.
2. Create a campaign for the target group, and add an action, to trigger leads in SAP Hybris Cloud for Customer.
3. Release the campaign.
4. The system triggers the creation of leads in SAP Hybris Cloud for Customer. You can filter for the leads with the name of the campaign.
5. These leads are replicated as lead interactions in SAP Hybris Marketing.

**Note**

If there are any changes to these leads in SAP Hybris Cloud for Customer, then these changes are replicated back to SAP Hybris Marketing. The lead ID in SAP Hybris Cloud for Customer is sent to SAP Hybris Marketing system. Any status change to a lead in SAP Hybris Cloud for Customer is also replicated in SAP Hybris Marketing.

6. For each of the leads replicated in SAP Hybris Cloud for Customer, a phone call activity is manually created in SAP Hybris Cloud for Customer, and the system saves it as phone call interaction in SAP Hybris Marketing.

**Lead Management Scenario**

The scope of the scenario is similar to that of the call center scenario. Any lead that is converted into an opportunity further creates an opportunity interaction in SAP Hybris Marketing. These leads and opportunities in SAP Hybris Cloud for Customer additionally has information about the corresponding campaign from Hybris Marketing.

It is possible to use a campaign (Category - *Automated Campaign*) or to use app *Transfer Leads*.

1. Go to app *Transfer Leads* and create a new lead transfer.
2. Enter a target group for which you want to create leads and an execution pattern.
3. Release and activate the lead transfer.
Target Audience

Typically, several functional/configuration experts are involved in the integration process. The following table outlines the roles and responsibilities during a standard integration.

**Recommendation**

SAP recommends that the integration team includes functional and configuration experts, integration developers (middleware resource), and administrator and networking expert for security and technical connectivity between the cloud and SAP Hybris Marketing landscape.

<table>
<thead>
<tr>
<th>Role</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP Hybris Marketing Consultant</td>
<td>Configuration activities in the SAP Hybris Marketing system</td>
</tr>
<tr>
<td>SAP HANA Cloud Integration Consultant</td>
<td>Configuration activities in the SAP HANA Cloud Integration</td>
</tr>
<tr>
<td>Cloud Administrator</td>
<td>Configuration activities in SAP Hybris Cloud for Customer.</td>
</tr>
<tr>
<td>System Administrator</td>
<td>Establishing a secure network connection between the SAP Hybris Marketing system and SAP Hybris Cloud for Customer</td>
</tr>
</tbody>
</table>
2 Connect Phase: Set Up Secure Connection between Systems

This chapter covers the requirements for configuring secure connection between SAP Hybris Cloud for Customer and SAP Hybris Marketing. In addition to the information in this chapter, you can refer to the Technical Connectivity guide for generic connectivity issues. Communication between the two systems must be secured by transport layer security (TLS) in both directions using the https protocol.

2.1 Communication between Cloud Solution and HCI Tenant

To establish communication between the SAP Hybris Cloud for Customer tenant and the SAP HANA Cloud Integration tenant, there must be secure HTTPS connections set up as part of tenant provisioning.
2.2 Communication from SAP Hybris Marketing to HCI Tenant

The communication between the systems is through SOAP and ODATA services. OData services are used to communicate from SAP Middleware to SAP Hybris Marketing, and the rest of the communication is through SOAP services.

The SAP Hybris Marketing system must be able to connect to the Internet via https protocol as a prerequisite for communication from SAP Hybris Marketing to the Cloud solution. The Cloud solution tenant can only be reached by a reverse proxy used in the SAP cloud network.

The server certificate of this reverse proxy is signed by the following certification authorities (CAs):

- Verizon Public SureServer CA G14-SHA2
- Baltimore CyberTrust Root

You must import the certificates of the above-mentioned CAs into the SAP Hybris Marketing system in transaction STRUST. Import the certificates into the folder SSL Client (Standard) for authentication with client certificate. You can obtain these certificates from Verizon certificate services. Download the first pair of certificates.

2.3 Communication from HCI Tenant to SAP Hybris Marketing

Access to your SAP Hybris Marketing system from the public internet and hence also from the hosted network, in which your SAP Hybris Cloud for Customer tenant and HANA cloud integration tenant are situated, should be secured by means of an application-level gateway in the corporate network DMZ, as described in the SAP NetWeaver Security Guide, section Network and Communication Security.

For further information, see the documentation about Network and Communication Security on the SAP Help Portal.

Security information for SAP NetWeaver is also available for each SAP NetWeaver platform version on SAP Help Portal.

Relevant subsections:

- Using Firewall Systems for Access Control ➔ Application-Level Gateways Provided by SAP ➔ Web Dispatcher ➔
- Using Multiple Network Zones

Note

In the following sections of this guide, the application-level gateway is referred to as reverse proxy.

An additional resource for connectivity information is the Technical Connectivity Guide on the SAP Service Marketplace.
The server certificate used by the reverse proxy must be trusted by the cloud HCI tenant. Therefore, it must be signed by one of the certification authorities listed in the next section.

### 2.4 Secure Connection: Supported Certification Authorities

You can find the list of all the supported certification authorities in the HCI documentation:

2. Open the complete documentation, say click SAP HCI for process integration complete documentation (HTML).
3. Go to [Connecting a Customer System to SAP HCI] [Concepts of Secure Communication] [HTTPS-Based Communication] [Load Balancer Root Certificates Supported by SAP].
3 Configure Phase: Configure Integration in Cloud Solution

This chapter covers the requirements for setting up the communication system, configuring the communication arrangements, and exporting the certificate.

3.1 Activate SAP Hybris Marketing Integration in Scoping

Purpose

You must check the scope of your SAP Hybris Cloud for Customer tenant, and ensure that the required integration is active.

Prerequisites

You have:

- Received the e-mail notification from SAP Hybris Cloud for Customer with the logon details
- Created an administrator user for your SAP Hybris Cloud for Customer tenant.

Procedure

1. Logon to the Cloud solution as a system administrator in the Silverlight UI.
2. In the Business Configuration work center, choose the Implementation Projects view.
3. Select your implementation project and click Edit Project Scope.
4. In the scoping wizard, choose Next until the Scoping screen appears.
5. Expand the Communication and Information Exchange ➔ Integration with External Applications and Solutions ➔ select Integration into Sales, Service, and Marketing Processes nodes, and Integration of Master Data and click Next.
   The Questions screen displays only the selected scoping options.
6. Expand Communication and Information Exchange ➔ Integration with External Applications and Solutions ➔ Integration of Master Data s ➔
In the Group: Business Partner, select the following scoping option:
○ Do you want to replicate business partner data from your cloud solution to an external application or solution?

7. Now, select Integration into Sales, Service, and Marketing Processes.
   In the Group: Activities select the following scoping options:
   ○ Do you want to replicate activities from your cloud solution to an external application or solution?
   In the Group: Leads select the following scoping options:
   ○ Do you want to replicate leads from an external application or solution to your Cloud solution?
   ○ Do you want to replicate leads from your Cloud solution to an external system?
   ○ Do you want to replicate marketing leads from your cloud solution to an external system?
   In the Group: Opportunities select the following scoping options:
   ○ Do you want to replicate opportunities from your cloud solution to an external application or solution?

8. Click Next.
9. After you have carefully reviewed and confirmed your entries, click Finish.

⚠️ Caution

Although you have now defined the scoping of the solution, you have not yet deployed it. To do so, confirm the milestone Design Accepted in the activity list of the project.

1. Go to Business Configuration view Open Activity List
2. Select Confirm Milestone: Design Accepted.
3. Select Design Accepted and click Confirm.

### 3.2 Set Up Communication System

**Purpose**

A communication system represents an external system for communication. A communication system is also the reference for ID mapping maintained within your Cloud solution. It must be representative of the on-premise client, even if the technical communication occurs using an SAP middleware.

To integrate your Cloud solution and an on-premise using an SAP middleware, you define the on-premise SAP Hybris Marketing client as the communication system. Note that all information except the host name is that of the on-premise system. Before a communication system can be used for data exchange, communication arrangements must be maintained.

**Procedure**

1. In the Administrator work center choose Communication Systems.
2. Click New.
3. On the New Communication System screen, in the Basic Information section, enter the following information.

Table 3:

<table>
<thead>
<tr>
<th>Field</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>ID or name of the on-premise system to be connected</td>
</tr>
<tr>
<td>SAP Business Suite</td>
<td>Select the checkbox.</td>
</tr>
<tr>
<td>Host Name</td>
<td>Host name of the SAP Middleware system.</td>
</tr>
<tr>
<td>System Access Type</td>
<td>Internet</td>
</tr>
</tbody>
</table>

4. (Optional): In the Technical Contact section, you can enter data of the contact person for this system.
5. Save your data.
6. In the System Instances section, enter the following data:

Table 4:

<table>
<thead>
<tr>
<th>Field</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Displays the ID or name of your business instance of the on-premise system</td>
</tr>
<tr>
<td>Business System ID</td>
<td>Business System ID of the on-premise system, as described below</td>
</tr>
<tr>
<td>IDoc Logical System ID</td>
<td>IDoc logical system ID, as described below</td>
</tr>
<tr>
<td>SAP Client</td>
<td>Client of the on-premise system</td>
</tr>
<tr>
<td>Preferred Application Protocol</td>
<td>Web Service or Soap</td>
</tr>
</tbody>
</table>

**Note**

Ensure the on-premise system is registered in the SLD and ensure you have a business system defined for on-premise system. To determine the Business System ID and the IDoc Logical System ID values, proceed as follows:

1. In on-premise system, execute transaction SE37.
2. To determine the Business System ID and the IDoc Logical System ID, run the function modules LCR_GET_OWN_BUSINESS_SYSTEM and OWN_LOGICAL_SYSTEM_GET respectively.

7. Click Actions ➤ Set to Active ➤
8. Click Save and Close.
3.3 Configure Communication Arrangements (HCI)

Purpose

You need to configure and activate the communication arrangements to enable the integration between an on-premise system and the Cloud solution.

*i Note*

The number of communication scenarios to be defined depends on the scoping you have performed.

Prerequisites

You know the following:

- Communication system ID as maintained in the Set up Communication System.
- Business system name for SAP Hybris Cloud for Customer.
- Service interface path for each of the following communication scenarios:
  - Opportunity Replication to SAP Business Suite
  - Lead Replication from Business Suite
  - Lead Replication to Business Suite
  - Business Partner Replication to SAP Business Suite
  - Business Activity Replication to SAP Business Suite

You can find the service interface paths in the INTEGRATION: Integration Flows spreadsheet on SAP Service Marketplace. You can filter on the source and target system combination of SAP Hybris Cloud for Customer and SAP Hybris Marketing.

Procedure

1. Go to Administrator work center. under Integration, click Communication Arrangements.
2. In the Communication Arrangements view, click New.
3. In the Select Scenario step, select the communication scenario Lead Replication from SAP Business Suite and click Next.
4. In the Define Business Data step, do the following and click Next:
   1. Choose the system instance ID of the SAP Hybris Marketing system.
   2. Choose code list mapping as SAP On-Premise Integration. To create multiple communication arrangements go to Administrator: Communication Arrangement for On-Premise Integration common task.
5. In the **Define Technical Data** step, under **Inbound Communication: Basic Settings**, do the following:
   1. Select the **Application Protocol** as **Web Service**.
   2. Select **Authentication Method** as **SSL Client Certificate**.
   3. Click **Edit Credentials**.
   4. On the **Certificate** tab, do one of the following: Select **Communication System** step, enter **business data**.
      - Upload the public key certificate that has been provided by your communication partner as part of provisioning. You can also receive it on creating an incident in the component LOD-HCI. To upload a **PKCS#12** file:
        1. Choose **Certificate**.
        2. Click **Upload Certificate** and choose the relevant certificate.
        3. Click **OK**.
      - If the communication partner cannot provide a certificate, then create a **PKCS#12** key pair file, which is password encrypted and contains a public key certificate and a private key, and provide the credentials to your communication partner. To create a **PKCS#12** key pair file:
        1. Choose **Certificate**.
        2. Click **Create** and **Download Key Pair**.
        3. Enter a name for the **PKCS#12** file and save it.
        4. Define a password for the **PKCS#12** file and click **OK**. The certificate details will be displayed.
        5. Click **OK**.

6. In the **Define Technical Data** step, under **Outbound Communication: Basic Settings**, do the following:
   1. Select the **Application Protocol** as **Web Service**.
   2. Select **Authentication Method** as **SSL Client Certificate**
   3. In the **Certificate** field, click **Download**.
   4. Choose a location to save the certificate, enter a file name, and click **Save**.

   **Note**
   The certificate will be downloaded with the specified name and in the chosen folder. You need to export this certificate that signs the SAP Hybris Cloud for Customer x.509 certificate.

7. Click **Edit Advanced Settings**.
8. Select the **Confirm Lead Replication to SAP Business Suite service** and enter the service path.
9. Uncheck the service **Notify Lead Status Change to the SAP Business Suite**.
10. Click **Next**. Review the content and click **Finish**.

Repeat the steps for all the communication scenarios listed below and select/unselect the checkbox for the services as described:

- **Communication Scenario Business Partner Replication to SAP Business Suite**
  - Select Replicate Business Partner to SAP Business Suite
  - Select Replicate Business Partner Relationship to SAP Business Suite
  - Unselect Replicate Business Partner Direct Responsibility to SAP Business Suite
  - Unselect Confirm Business Partner Relationship Replication from SAP Business Suite
  - Unselect Confirm Business Partner Replication from SAP Business Suite

- **Communication scenario Lead Replication from SAP Business Suite**
  - Select Replicate Lead with Business Partner Address Information from SAP Business Suite
  - Select Confirm Lead Replication to SAP Business Suite
  - Unselect Replicate Lead Attachment from SAP Business Suite
Unselect Replicate Leads from the SAP Business Suite
Unselect Notify Lead Status Change to the SAP Business Suite

Communication scenario Lead Replication to SAP Business Suite
Select Replicate Marketing Lead to SAP Business Suite
Unselect Replicate Lead Attachment to SAP Business Suite
Unselect Replicate Lead to SAP Business Suite
Unselect Confirm Lead Replication from SAP Business Suite

Communication scenario Opportunity Replication to SAP Business Suite
With 1608, a new, bulk enabled interface was introduced. New customers are recommended to use this interface. Existing customers should consider switching to the new interface, especially if they are performing an initial load or other mass operation, as this should improve the performance over single message processing. You should only have one of the interfaces activated.
Select Replicate Bulk Opportunity to SAP Business Suite
OR Select Replicate Opportunity to SAP Business Suite
Unselect the other Opportunity Interface
Unselect Replicate Opportunity Attachment Folder from SAP Business Suite

Communication scenario Business Activity Replication to SAP Business Suite
Select Replicate Business Activity to SAP Business Suite
Unselect Confirm Business Activity Replication from SAP Business Suite

Communication scenario Business Activity Replication from SAP Business Suite
Select Replicate Business Activity from SAP Business Suite

3.4 Export the Certificate

While configuring outbound communication credentials in a communication arrangement, you have downloaded the x.509 certificate that is used to sign the SAP Hybris Cloud for Customer x.509 certificate.

1. Go to the folder that has the downloaded certificate.
2. Double-click on it to open the certificate.
3. In the Certification Path tab, select the root certificate.
4. Click View Certificate to view the certificate.
5. In the Details tab, click Copy to File, and click Next.
6. Select the option Base-64 encoded X.509 (.CER) and click Next.
7. Specify the location to save the file and click Next.
8. Click Finish.

This file needs to be imported into the middleware.
3.5 Change the Assignment of Categories

1. In the Business Configuration work center, choose the Implementation Projects view.
2. Select the project and click Open Activity List.
4. Search for the activity Leads and click on it.
5. Select Assign Categories.
6. Click on Add to add the category 0002 – Telephone Call.
7. Save your entries.

3.6 Determine Short Tenant ID

Purpose

The tenant ID is required for several upcoming configuration steps in both SAP Hybris Marketing system and the SAP middleware such as NetWeaver Process Integration. We recommend that you note it at this point in your configuration.

Procedure

1. In the Administrator work center, choose Communication Arrangements.
2. Select a communication arrangement that you have created in, for example, Business Partner Replication from External System.
3. Under the My Communication Data section, note the ID under My System.

3.7 Perform Code List Mapping

Purpose

The codes used in Hybris Marketing and Cloud for Customer are not always the same. Therefore, they have to be mapped in Cloud for Customer using the Code List Mapping Tool.
Upload Code List Mapping

1. Go to 2356022 in the SAP Service Marketplace.
2. Download the code list mapping file attached in the note to your local computer.
3. Upload the file to SAP Hybris Cloud for Customer in the next steps. To do this, login to the SAP Hybris Cloud for Customer solution and perform the following steps:
   2. Select the code list mapping group OnPremise Integration.
   3. Choose Upload and select the file that you have downloaded under step and modified.

Check the status of the code list mapping in the Application Log

1. Under Business Configuration > Upload Code List > Application Log, click on the required Application Log ID. The log displays information under the following tabs:
   - General: Displays a high-level summary and administrative data for the job
   - Settings: Displays settings selected during an upload
   - Results: Displays the detailed results of the job including a list of detailed message descriptions, and the nature of the message

   **Note**
   You can also export the information on the tabs to Microsoft Excel®. To do this, click on Export to Microsoft Excel, and select the tab from which you want to export the data.

View Code List Mapping

1. In the Business Configuration work center, choose the Implementation Projects view.
2. Select the project and click Open Activity List.
3. Choose tab Fine-Tune and search for the activity Code List Mapping for Integration with External Applications and Solutions and double click on it.

   **Note**
   The code list mapping UI contains the following three tables, which are hierarchical:
1. **Local Data Type**: This shows the data types available in the Cloud for Customer system relevant for Code List Mapping. Select the data type for which you want to view the Code List Mapping.

2. **Code List Mapping Rule**: Here we set the code list mapping rules for the data type selected in the above table. There are two possible rules:
   - **Local and Remote codes are equal**: This rule can be used when the values in the Cloud for Customer system and the ones in the Hybris Marketing system are the same. If this rule is selected, there is no need to do any mapping for the code values.
   - **Map Individual values**: This rule can be used when the codes in the Cloud for Customer system and the ones in the S/4 HANA system are different. If this rule is selected, the individual code values have to be mapped.

**Code List mapping**: Map each code value (only the required ones) for the local data type from Cloud for Customer system with the corresponding values in the Hybris Marketing system.
4 Configure Phase: Configure Integration in SAP Hybris Marketing

Prerequisites

You have:

- Performed all steps outlined in the Installation Guide.
- Setup SSL Connection between SAP Hybris Marketing and SAP Middleware

To perform all the configuration activities in SAP Hybris Marketing, login with the technical user. For more information, see User for Application Setup in the Installation Guide.

Note

The communication between PI and SAP Hybris Marketing described in this document is based on Basic Authorization. To setup certificate-based authorization, please refer to SAP NetWeaver Security Guide.

4.1 Inbound: Assigning Role SAP_CEI_C4C_INTEGRATION to Technical User for OData Call

For Inbound calls, the OData Service CUAN BUSINESS DOCUMENT IMP SRV and CUAN BUSINESS PARTNER IMP SRV are called from the respective middleware system (SAP PI or SAP HCI as the case may be) system. These OData services require a technical user C4CIMPORT in SAP Hybris Marketing with the corresponding authorization.

Note

Note this user name and password as they are later needed for setting up your SAP Middleware system (PI or HCI) – note user name and password.

1. Create user C4CIMPORT using transaction SU01 (user type SYSTEM) and maintain a password.
2. Copy the single role SAP_CEI_C4C_INTEGRATION using transaction PFCG.
3. Assign the newly copied role to user C4CIMPORT.
4.2 Outbound: Configuring Logical Ports

The logical ports for the Outbound Web Services are configured via the technical configuration in SAP Hybris Marketing. This is done by executing the scenario Lead Management with SAP Hybris Cloud for Customer Integration in the Technical Configuration Cockpit. See Installation Guide for more information.

To check if the logical ports have been successfully created, please go to transaction SOAMANAGER and check Consumer proxies CO_CUAN_PRX_ACTIVITY_REPL_OUT and CO_CUAN_PRX_LEAD_REPL_REQUEST.

To create the logical ports with scenario Lead Management with Cloud for Customer Integration, you need to specify the technical user of your PI Or HCI system, if you are using

- SAP PI system as the middleware, then use the PI system user ID and password for this configuration.
- SAP HCI system as the middleware, then specify a technical user for your HCI system. This is typically, the p-user (SCN user) or s-user (SMP user). The role ESBmessaging.send should be assigned to this user. See the Overview of Authorization Groups in SAP HCI.

See Configure Phase: Configure Integration in SAP Hybris Marketing [page 19]

Note

Scenario Lead Management with Cloud for Customer Integration needs the URL Access Paths of the following services:

- LeadReplicationRequest_Out
- ActivityReplicationOut

PI system: The URL parameter can be retrieved from the Web Services Description Language (WSDL) of the Sender Agreement, which is configured in the PI system.

HCI system: In the HCI Web UI, navigate to Monitor and click on the Started tile. Search for the integration flow e.g. Replicate Lead with Business Partner Address Information from SAP Business Suite. Click on status Started. The second part of the listed endpoint starting with /cxf/ is the required service endpoint. Example: /cxf/yMKT/C4C/LeadReplicationRequest_Out For the parameter “Host Name of HCI” you need to use the HCI runtime URL (Chapter 5.1).

4.3 Configuring SSL for UI Navigation from SAP Hybris Marketing to SAP Hybris Cloud for Customer

To set up SSL, you need the server root certificate from your SAP Hybris Cloud for Customer system and have to import it.

1. In your SAP Hybris Marketing system, call up transaction STRUST. In the navigation section, go to folder PSE SSL client SSL Client (Anonymous).
2. From the Certificate menu, choose Import (or choose the corresponding push button in the Certificate section).
3. Import the server root certificate and press “add to the certificate list”.

Integrating SAP Hybris Cloud for Customer with SAP Hybris Marketing using SAP HANA Cloud Integration Configure Phase: Configure Integration in SAP Hybris Marketing
5  Configure Phase: Configure Integration in SAP HANA Cloud Integration (HCI)

SAP provides prepackaged, generic integration content called integration flows for the integration of SAP Hybris Cloud for Customer with SAP Hybris Marketing Edition using SAP HANA Cloud Integration.

Prerequisites

You have received the HCI provisioning e-mail and the administrator has created the needed users in HCI. Please refer to User Management for SAP HCI.

5.1  Configure Hybris Marketing Communication User Credentials using SAP HCI Web UI

Prerequisites

The communication user is created in SAP Hybris Marketing.

Procedure

1. Access the Web UI URL from the provisioning e-mail. It should be in the format: https://<HCI tenant>.hci.us1.hana.ondemand.com/itspaces.
3. Click Add User Credential in the right bottom corner.
4. Enter a meaningful Name – this will be referenced in iFlows – a Description, and the User and Password. Do not flag the SuccessFactors check-box.
   
   **Note**
   
   The User Name and Password have to be taken from the communication user created in SAP Hybris Marketing.

5. Click OK.

5.2  Configure and Deploy iFlows using SAP HCI Web UI

Prerequisites

Integrating SAP Hybris Cloud for Customer with SAP Hybris Marketing using SAP HANA Cloud Integration

Configure Phase: Configure Integration in SAP HANA Cloud Integration (HCI)
1. To be able to import and deploy iFlows, you need the AuthGroup.IntegrationDeveloper role assigned in your tenant.

2. For certificate based authentication between SAP Hybris Cloud for Customer and HCI you need the client certificate from SAP Hybris Cloud for Customer. See Configure Communication Arrangements (HCI) [page 13].

**Process**

1. In the Discover tab, copy all the integration flows to the workspace by clicking on the button with the tooltip Copy to workspace.

2. In the Design tab, navigate to the package, and click individual integration flow. Now, click the Actions icon, and select Configure option.

   **Note**

Mass configuration of iFlows is not supported for ODATA adapters. Since SAP Hybris Marketing Edition uses ODATA adapter to receive data from HCI, each of the iFlows need to be configured individually and deployed.

3. Under the Sender tab, select the appropriate authentication method. In case, SAP Hybris Marketing is the sender (sender abbreviation yMKT), choose authentication Type as Basic Authentication. In case SAP Hybris Cloud for Customer is the sender (sender abbreviation C4C), choose authentication type as Certificate Based Authentication.

   **Note**

In case the authentication type is Certificate Based Authentication, provide the sender system client certificate using the browse button. See Configure Communication Arrangements (HCI) [page 13].

4. Under the Receiver tab, provide the host name and port for the receiver system. Select the appropriate authentication type. In case, SAP Hybris Marketing is the receiver (receiver abbreviation yMKT), choose authentication Type Basic Authentication. Take the SAP Hybris Marketing System URL without the protocol (https://) as the host name. The port is always 443. Provide the credential name as configured in Chapter Configure and Deploy Communication User Credentials. In case, SAP Hybris Cloud for Customer is the receiver (receiver abbreviation C4C), choose authentication type as Certificate Based Authentication. Take the C4C logon URL as provided in the provisioning e-mail without the protocol (https://) as the host name. The port is always 443.

5. Click Deploy.

6. You should see a “Deploy Successful” message in the console.

7. Repeat the above steps for all iFlows which you wish to deploy.

### 5.3 How to get the HCI Runtime URL

The HCI Runtime URL is included in the HCI provisioning e-mail.

Alternatively, you can get it from the following place once the iFlow Replicate Lead with Business Partner Address Information from SAP Business Suite is deployed. See Configure and Deploy iFlows using SAP HCI Web UI.
In the HCI Web UI navigate to Monitor. Click on the Started tile. Search for the iFlow Replicate Lead with Business Partner Address Information from SAP Business Suite. Click on status Started. The first part of the listed endpoint is the needed HCI tenant runtime URL. Example https://<tenant>-iflmap.hana.ondemand.com

5.4 How to get the HCI Client Certificate

In the HCI provisioning e-mail follow the link under Certificate Information. In the the resulting screen choose X509 Certificate with option Binary CER. Download it to your local machine.

5.5 View and Extend the Deployed iFlows using SAP Eclipse

This step is optional and only required if you want to extend the standard iFlows.

Prerequisites

1. Install the SAP HCI Eclipse environment, see https://tools.hana.ondemand.com/#hc.
2. Maintain the HCI Operation server details at Windows Preferences SAP HANA Cloud Integration Operation server (see provisioning e-mail for details)
3. Configure and Deploy pre-package content using HCI web UI, see chapter Configure and Deploy iFlows using SAP HCI Web UI [page 21]. For more information, see Developer’s Guide: Managing Integration Content (applicable only for SAP)

5.5.1 Download the iFlow projects on your desktop

1. Go to Integration Designer Perspective.
2. In the Project Explorer, On the Eclipse tool bar navigate to File Import
3. In the Import wizard, select the option Integration Content Archive under SAP HANA Cloud Integration and click Next.
4. In the next screen under Import select Tenant Management Node in the Form location dropdown and select your tenant in the Tenant ID dropdown box.
5. From the Integration content section select the iFlow which you want to download and click Finish
6. The project is imported and displayed under the Project Explorer
5.5.2 View the configured certificates and externalized parameters

1. In the Project Explorer expand the tree view, and double click to open the iFlow found under src.main.resources.scenarioflows.integrationflows.
2. In the Integration Designer, select the iFlow
3. Within the iFlow, select the sender system, and under Properties tab
4. If you wish to update the authentication of the iFlow to Basic Authentication, it is possible by, selecting the mode of authentication as Basic Authentication. For more information on configuring basic authentication, see How-To guides.

   **Note**
   When using Basic Authentication, make sure to create or use an existing SCN user and password to authenticate into HCI. The SAP SCN can be accessed from [https://scn.sap.com](https://scn.sap.com)

5. For Certificate-based Authentication, view the details under the Properties tab
6. To view the configuration of the iFlow, click on Externalized Parameters tab, under the Value field, and view the configured <host>:<port> information of the receiver system.

5.5.3 Extend the Project in Eclipse and Deploy

1. To extend the iFlow project, you can make modifications to either of the three folders.
   - src.main.resources.mapping
   - src.main.resources.scenarioflows.integrationflows
   - src.main.resources.wsdl
2. Deploy the modified iFlow project by using the right-click option at the iFlow project level and selecting Deploy Integration Content.
3. Enter the Tenant ID and click OK.

5.6 Maintain Value Mapping

The value mappings listed in the table below are delivered as part of the pre-packaged HCI content which can be found in the eclipse project com.sap.sod.scenarios.valuemapping.

**Procedure**

1. Import the project com.sap.cod.scenarios.valuemapping into the Eclipse similar to importing an iFlow
2. In the Project Explorer, open the value mapping file value_mapping.xml found in the value mapping project.

3. In the value_mapping.xml file each group element should have two set of agency, schema and value element representing source and target values.

4. Maintain the value mapping based on the requirement by providing the source agency name, source schema name, source value with respective target agency name, target schema name and target value.

    ▶ Mapping CUAN-Sender System > COD-BusinessSystem (Tenant ID)

<table>
<thead>
<tr>
<th>CUAN-LogicalSystemID</th>
<th>COD-BusinessSystemID</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is the Logical System ID of your SAP Hybris Marketing system in the Communication System in SAP Hybris Cloud for Customer. It can also be derived by executing the function module OWN_LOGICAL_SYSTEM_GET in the SAP Hybris Marketing system.</td>
<td>This is the short tenant ID of the SAP Cloud for Customer system. For more information, see Determine Short Tenant ID [page 16].</td>
</tr>
</tbody>
</table>

    ▶ Mapping COD Business System > CUAN System ID

<table>
<thead>
<tr>
<th>COD-BusinessSystemID</th>
<th>CUAN-SystemID</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is the short tenant ID of the SAP Hybris Cloud for Customer system. For more information, see Determine Short Tenant ID [page 16]</td>
<td>This is a system ID that is used as a namespace inside of the SAP Hybris Marketing System for ID originating from external systems.</td>
</tr>
</tbody>
</table>

    ▶ Mapping CUAN Origin > COD Scheme ID

<table>
<thead>
<tr>
<th>CUAN-Origin</th>
<th>COD-SchemeID</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is an identifier describing the root origin of an ID. Values are for example SAP_ERP_CUSTOMER or SAP_CRM_BUPA. This value is set/provided by SAP Hybris Marketing depending on the system from which Business Partners are loaded.</td>
<td>This is the number identifying the entity represented by the given ID (for example, 888 representing “Business Partner”). By default, it is set to 888.</td>
</tr>
</tbody>
</table>

    ▶ Mapping CUAN Origin > COD External System ID

<table>
<thead>
<tr>
<th>CUAN-Origin</th>
<th>COD-ExternalSystemID</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is an identifier describing the root origin of an ID. Values are for example SAP_ERP_CUSTOMER or SAP_CRM_BUPA. This value is set/provided by SAP Hybris Marketing depending on the system from which Business Partners are loaded.</td>
<td>This is the system ID from which the ID originated. This must be identical to what is configured in the Communication Arrangement for the given system.</td>
</tr>
</tbody>
</table>

    ▶ Mapping CUAN Origin > COD External System ID Type

Integrating SAP Hybris Cloud for Customer with SAP Hybris Marketing using SAP HANA Cloud Integration
Configure Phase: Configure Integration in SAP HANA Cloud Integration (HCI)
Table 9:

<table>
<thead>
<tr>
<th>CUAN-Origin</th>
<th>COD-ExternalSystemID</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is an identifier describing the root origin of an ID. Values are for example SAP_ERP_CUSTOMER or SAP_CRM_BUPA. This value is set/provided by SAP Hybris Marketing depending on the system from which Business Partners are loaded.</td>
<td>This defines what kind of system ID was provided. This is usually BusinessSystemID or LogicalSystemID. By default, it is set to BusinessSystemID.</td>
</tr>
</tbody>
</table>

Mapping CUAN Origin > COD Communication Language

Table 10:

<table>
<thead>
<tr>
<th>CUAN-LogicalSystem</th>
<th>COD-CommunicationLanguage</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is the Logical System ID of your SAP Hybris Marketing system in the Communication System in SAP Hybris Cloud for Customer. It can also be derived by executing the function module OWN_LOGICAL_SYSTEM_GET in the SAP Hybris Marketing system.</td>
<td>This is the communication language used in SAP Hybris Cloud for Customer. Whatever language is given in this Value Mapping also needs to be added in the fine tuning for Communication Language for Data Replication. By default, it is set to EN.</td>
</tr>
</tbody>
</table>

Default Mappings

Table 11:

<table>
<thead>
<tr>
<th>CUAN-Origin_Account</th>
<th>COD-Origin_Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is the indicator whether the value in COD_DEFAULTS-Origin_Account should be used as primary or secondary choice to pass on the ID. Two values must be defined: First_Origin and Second_Origin.</td>
<td>Defines the origin from which the ID is passed on from SAP Hybris Marketing to SAP Cloud for Customer. If no value is given for First_Origin, the ID of Second_Origin will be used. If this is also not given, origin SAP_HYBRIS_MKT_IC (SAP Hybris Marketing ID) will be used. Default values: First_Origin: SAP_CRM_BUPA Second_Origin: SAP_ERP_COMPANY</td>
</tr>
</tbody>
</table>

Table 12:

<table>
<thead>
<tr>
<th>CUAN-Origin_Contact</th>
<th>COD-Origin_Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is the indicator whether the value in COD_DEFAULTS-Origin_Contact should be used as primary or secondary choice to pass on the ID. Two values must be defined: First_Origin and Second_Origin.</td>
<td>Defines the origin from which the ID is passed on from SAP Hybris Marketing to SAP Cloud for Customer. If no value is given for First_Origin, the ID of Second_Origin will be used. If this is also not given, origin SAP_HYBRIS_MKT_IC (SAP Hybris Marketing ID) will be used. Default values: First_Origin: SAP_CRM_BUPA Second_Origin: SAP_ERP_CONTACT</td>
</tr>
</tbody>
</table>

Table 13:

<table>
<thead>
<tr>
<th>CUAN-Origin_Individual_Customer</th>
<th>COD-Origin_Individual_Customer</th>
</tr>
</thead>
</table>
This is the indicator whether the value in COD_DEFAULTS-Origin_Individual_Customer should be used as primary or secondary choice to pass on the ID. Two values must be defined: First_Origin and Second_Origin.

Defines the origin from which the ID is passed on from SAP Hybris Marketing to SAP Cloud for Customer. If no value is given for First_Origin, the ID of Second_Origin will be used. If this is also not given, origin SAP_HYBRIS_MKT_IC (SAP Hybris Marketing ID) will be used.

Default values: First_Origin: SAP_CRM_BUPA Second_Origin: SAP_ERP_CUSTOMER

<table>
<thead>
<tr>
<th>Mapping CUAN</th>
<th>CustomerTransactionDocumentOriginTypeCode</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table 14:</strong></td>
<td></td>
</tr>
<tr>
<td>This is set to CALLQUAL in the HCI mapping.</td>
<td>This is defaulted to 003 campaign. You can map any value that has been defined in the BC fine tuning for Leads in Cloud.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mapping CUAN</th>
<th>COD-LeadGroupCode</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table 15:</strong></td>
<td></td>
</tr>
<tr>
<td>CUAN-LeadGroupCode</td>
<td>COD-LeadGroupCode</td>
</tr>
<tr>
<td>This is set to CALLQUAL in the HCI mapping.</td>
<td>You can map any value that has been defined in the BC fine tuning for Leads in Cloud.</td>
</tr>
</tbody>
</table>

5. To change the value of existing value mapping identify the respective source and target agency-schema combination and change the value mapping as required.
6. A new value mapping entry can also be added by using the existing value mapping entry as a template.
7. Save the value_mapping.xml file.
8. Deploy to the HCI runtime tenant.
6 Initial Load of Data

You can load Business Partners and Business Partner Relationships, Opportunities, Leads and Activities from SAP Hybris Cloud for Customer to. You can view these business partners in SAP Hybris Marketing system under the Data Management work center. You must load business partners before you load the business partner relationships, Opportunities, Leads and Activities.

Table 16:

<table>
<thead>
<tr>
<th>SAP Hybris Cloud for Customer</th>
<th>Is visible in the Data Management work center as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>Corporate Account</td>
</tr>
<tr>
<td>Contact</td>
<td>Contact</td>
</tr>
<tr>
<td>Individual Customer</td>
<td>Consumer</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Contact Factsheet of Contact/Corporate Account - Interactions</td>
</tr>
<tr>
<td>Leads</td>
<td>Contact Factsheet of Contact/Corporate Account - Interactions</td>
</tr>
<tr>
<td>Activities</td>
<td>Contact Factsheet of Contact/Corporate Account - Interactions</td>
</tr>
</tbody>
</table>

Note

Only specific activities (visits and phone calls) are replicated to SAP S/4 HANA.

1. In the Administrator work center, choose Extract Data to External System.
2. Click on the object you want to load.
3. Specify the selection criteria of the object you want to load to SAP S/4 HANA system.

Table 17:

<table>
<thead>
<tr>
<th>Business System ID</th>
<th>Select the business system ID of the SAP S/4 HANA system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Size</td>
<td>Represents the number of business partners that will be transferred in one bulk message. 100 is the default for optimal performance</td>
</tr>
</tbody>
</table>

4. If you want to check the number of object instances that will be loaded to the target system, before triggering the data load, click Test Run. No messages will be initiated to transfer data. Once you decide to initiate the transfer, uncheck the option.
5. Click Execute.
7 Monitor Phase: Monitor Message Flow Across Systems

Messages are exchanged between the SAP on-premise, SAP Middleware and SAP Hybris Cloud for Customer systems, during data load and go-live phases. These messages need to be monitored for following reasons:

- Identify incorrect data in messages
- Narrow down on the component where the message has failed
- Check connectivity issues between the components

For detailed information on how to monitor data across these systems, see Monitoring Guide. For information on how to monitor messages in SAP Hybris Marketing, see Managing Integration Errors.
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