

Replicate vendor and vendor group from SAP S/4HANA to  
SAP Concur  
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English

## Replicate vendor and vendor group from SAP S/4HANA to SAP Concur



# Content

|  |   |
|--|---|
| 1 Prerequisites  | 4 |
| 2 Documentation  | 5 |
| 3 Configuration steps on SAP Cloud Integration   | 7 |
| 3.1     Configure "Value Mapping for Replicating of Vendor and Vendor Group from SAP S4HANA to SAP Concur" | 7 |
| 3.2     Configure Iflow "Request Token from SAP Concur"  | 7 |
| 3.3     Configure Iflow "Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur"                  | 7 |
| 3.3.1    Configure timer start parameter   | 8 |
| 3.3.2    Configure the Receiver "ConcurAPI" (SAP Concur system)  | 8 |
| 3.3.3    Configure the Receiver "S4HANA" (SAP S/4HANA system)  | 8 |
| 3.3.4    Configure receiver parameter for „CustomerMailServer“   | 9 |
| 3.3.5    Configure More Parameter  | 9 |



# 1 Prerequisites

Customer should have access information to SAP Concur API, like SAP Concur API Address for example [emea.api.concursolutions.com](https://emea.api.concursolutions.com), and related client id, client secret and refresh token for authentication.

Customer should install SAP Cloud Connector, and make sure the valid connection to on premise SAP S/4HANA OData API, in this guide we would not explain the setup of SAP Cloud Connector, for more information, please refer to SAP Help:  
[https://help.sap.com/docs/CP\\_CONNECTIVITY/cca91383641e40ffbe03bdc78f00f681/e6c7616ab/b5710148cf3e75d96d596.html?locale=en-US](https://help.sap.com/docs/CP_CONNECTIVITY/cca91383641e40ffbe03bdc78f00f681/e6c7616ab/b5710148cf3e75d96d596.html?locale=en-US)

Customer should have SMTP mail server for alert notification.

## 2 Documentation

There are 3 artifacts in this package, the iflow "Get Concur Token" is used to get concur API call token every half hour and store it in global variable, the iflow "Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur" is the main iflow to process vendor and vendor group replicate from S/4HANA to Concur, the Value Mapping "Value Mapping for Replicating of Vendor and Vendor Group from SAP S4HANA to SAP Concur" is used to provide currency mapping logic in iflow "Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur".

The screenshot shows the SAP Fiori interface for a package named 'Replicate vendor and vendor group from SAP S4HANA to SAP Concur'. The top navigation bar includes 'Edit', 'Export', 'Publish', and 'Delete Package'. Below the title, a brief description states: 'Requests business partner information from SAP S/4HANA and handles the replication to SAP Concur.' It also shows the vendor as 'SAP SE', mode as 'Editable', and version as '1.0.0'. The main content area has tabs for 'Overview', 'Artifacts (3)', 'Documents (6)', 'Tags', and 'Comments'. The 'Artifacts (3)' tab is selected, displaying a table with three rows:

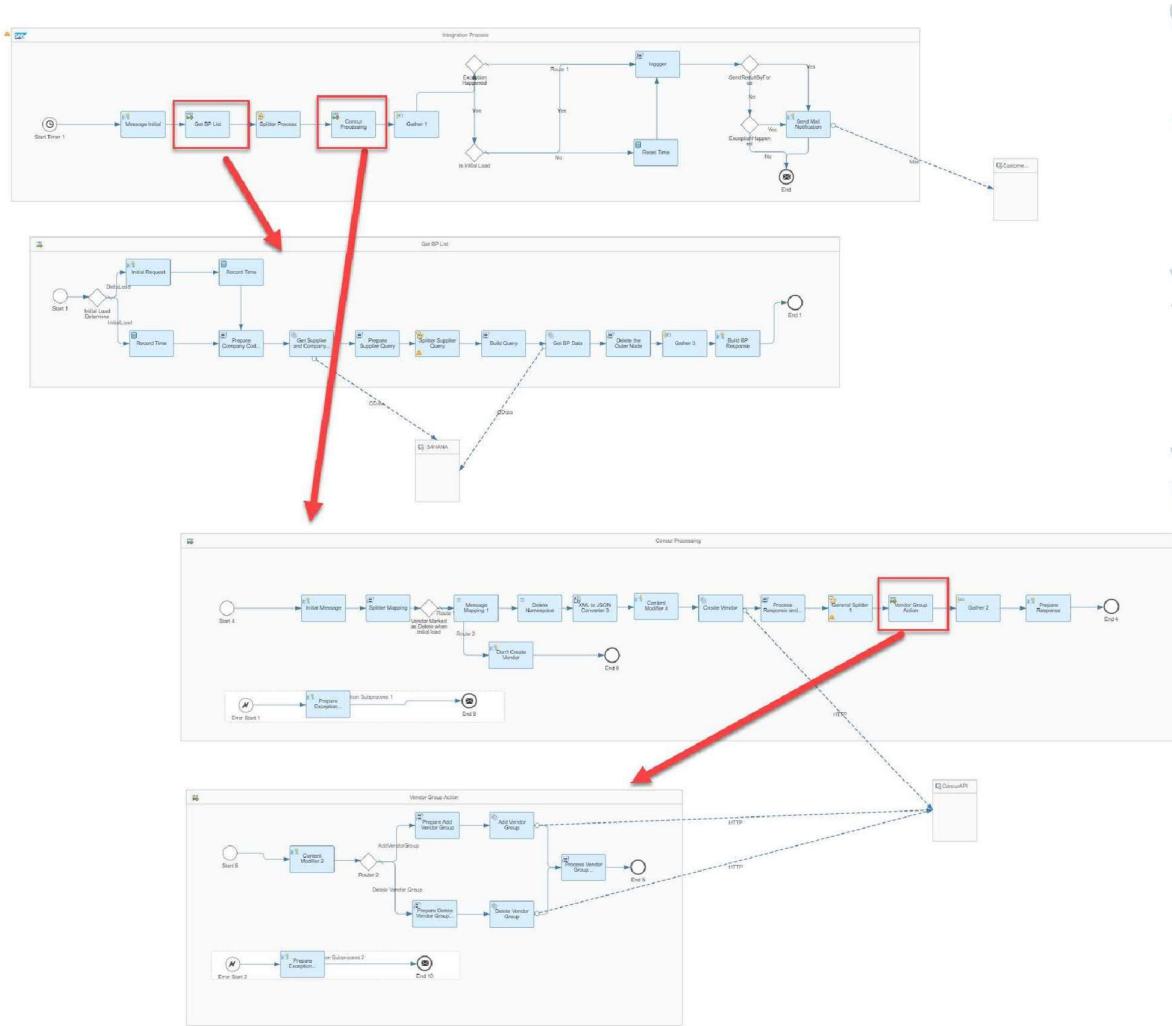
| Name  | Type             | Version | Actions |
|---|------------------|---------|---------|
| <b>Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur</b><br>Requests business partner data from SAP S/4HANA based on a Timer, and creates or updates vendor and creates vendor group<br>Created | Integration Flow | 1.0.0   |         |
| <b>Request Token from SAP Concur</b><br>Request session token from SAP Concur API on a scheduled basis.<br>Created  | Integration Flow | 1.0.0   |         |
| <b>Value Mapping for Replicating of Vendor and Vendor Group from SAP S4HANA to SAP Concur</b><br>Value Mapping for supplier country and currency value.<br>Created  | Value Mapping    | 1.0.0   |         |

Below is the iflow overall picture. This iflow is used to replicate vendor and vendor group information from SAP S/4HANA to SAP Concur system. First it will get the valid supplier information from SAP S/4HANA via OData call, then it will update vendor information in concur one by one and update vendor group information as well, if any issue happened when calling SAP Concur API, the iflow will not stop processing, it will gather the exception information and send the processing information to customer via mail notification.

Vendor Group is a SAP Concur concept, in this case, we will create vendor group based on following rule, the vendor group name is the Company Code, and group member has 2 attributes "vendorCode" and "addressCode", both of the attributes' value is the vendor BP number belongs to this Company Code.

This iflow have full load and delta load mode, in case customer enable full load mode, the system will try to replicate (update) all vendor and vendor group information to SAP Concur, in case customer enable delta load mode, the iflow will only replicate vendor and vendor group information changed after certain timestamp.

By default, this job is schedule every 1 hour, customer could change the frequency based on their requirement.



The detail process steps are:

- Initial the message properties like full/delta load mode, company code, business partner group, SAP S/4HANA client, etc.
- Determine the full/delta load mode, based on that build different query and store processing start time.
- Query SAP S/4HANA supplier number and company code based on given company code list.
- Query supplier detail information that should equal to supplier number that we have in previous step and should not belong to given business partner group, in case a supplier has business for different company code, and concur support only one currency code for one vendor, the iflow will use the first company code currency.
- Currently SAP Concur API doesn't support parallel processing, so the iflow will split each vendor information and process them one by one.
- Update the SAP Concur vendor information via API.
- Update the SAP Concur vendor group information via API.
- Gather the processing response and if exception happens, system will alert customer via email with query information and error info inside.

# 3 Configuration steps on SAP Cloud Integration

## 3.1 Configure “Value Mapping for Replicating of Vendor and Vendor Group from SAP S4HANA to SAP Concur”

Click on the Action to configure the country code and currency code directly in this value mapping:

The screenshot shows the SAP Cloud Integration interface for configuring Value Mappings. At the top, there's a header with a navigation icon, the path "... / Configure Value Mapping for Replicating of Vendor and Vendor Group from SAP S4HANA to SAP Concur /", and buttons for Save, Deploy, and Cancel. Below the header, the title "Configure Value Mapping for Replicating of Vendor and Vendor Group from SAP S4HANA to SAP Concur" is displayed, along with a "Bi-Directional Mapping" label and a search bar.

The main area is titled "Value Mappings:" and contains a table for defining mappings between Agency and Identifier. The table has columns for Agency, Identifier, and State. A row is selected with "S4" in the Agency column and "Country" in the Identifier column. The "State" column is empty for this row.

Below the table, a section titled "Value Mappings for" lists specific mappings. It includes a "Search" field and an "Add" button. The listed mappings are:

| Source      | Target           |
|-------------|------------------|
| S4, Country | Concur, Currency |
| IN          | INR              |
| RU          | RUB              |
| PL          | PLN              |
| SE          | SEK              |
| UK          | GBP              |
| NL          | EUR              |
| FR          | EUR              |
| DE          | EUR              |
| IT          | EUR              |
| ES          | EUR              |

To the right of the table, there's usage information: "ValueMap (Source agency, Source identifier, Source value, Target agency, Target identifier) = Target value;" and examples: "ValueMap (S4, Country, IN, Concur, Currency) = INR; ValueMap (Concur, Currency, INR, S4, Country) = IN;".

## 3.2 Configure Iflow “Request Token from SAP Concur”

Please configure the following parameters for the authentication to the SAP Concur API. They should be provided by SAP Concur side as well as the SAP Concur OAuth URL. Below screenshot is an example.

The screenshot shows the SAP Cloud Integration interface for configuring an Iflow step named "Request Token from SAP Concur". At the top, there's a "More" link and the step name "Configure \"Request Token from SAP Concur\"".

The configuration form includes the following fields:

- Type: All Parameters (dropdown menu)
- ClientID: [empty input field]
- ClientSecret: [empty input field]
- ConcurTokenUrl: [empty input field]
- RefreshToken: [empty input field]

## 3.3 Configure Iflow “Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur”

<Describe the configuration steps on the Cloud Connector to connect to OnPremise System >

### 3.3.1 Configure timer start parameter

Please configure the timer to define the job frequency

Configure "Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur"

The screenshot shows the SAP Cloud Connector configuration interface for a scheduled job named "Start Timer 1 [StartEvent\_85420118]". The "Timer" tab is selected. The job is set to "Schedule to Recur" (selected) and "Daily" (selected). The time is set to "11:25 AM" with a recurrence of "1 hr" between "00:00" and "24:00". The time zone is "( UTC 0:00 ) Greenwich Mean Time(Etc/GMT)". Other tabs like "Receiver" and "More" are visible at the top.

### 3.3.2 Configure the Receiver “ConcurAPI” (SAP Concur system)

Configure the SAP Concur API Host that is provided by the SAP Concur colleagues.

Configure "Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur"

The screenshot shows the SAP Cloud Connector configuration interface for the "ConcurAPI" receiver. The "Receiver" tab is selected. The receiver is named "ConcurAPI" and the adapter type is "HTTP". The connection details include the address "{{ConcurAPIAddress}}/api/v3.0/invoice/vendor/groups" and the ConcurAPIAddress "http://<concurapihost>". Other tabs like "Timer" and "More" are visible at the top.

### 3.3.3 Configure the Receiver “S4HANA” (SAP S/4HANA system)

Please maintain the SAP S/4HANA virtual host name that is maintained in Cloud Connector and port here in SAP S/4VirtualHost, and the SAP S/4HANA credential name in SAP CI here in Credential Name.

Timer    **Receiver**    More

|                   |   |
|-------------------|---|
| Receiver:         | S4HANA  |
| Adapter Type:     | HCIOData  |
| <b>Connection</b> |   |
| Address:          | <code>{{S4VirtualHost}}/sap/opu/odata/sap/API_BUSINESS_PARTNER</code> |
| S/4VirtualHost:   | <code>http(s)://&lt;S4virtualhost&gt;:&lt;port&gt;</code>             |
| Credential Name:  | <credential>  |

### 3.3.4 Configure receiver parameter for „CustomerMailServer“

Please maintain the SMTP mail server and port information here in Address, the mail sender email address in From, and the receiver mail address (split by comma) in To.

Timer    **Receiver**    More

|                   |   |
|-------------------|---|
| Receiver:         | CustomerMailServer                          |
| Adapter Type:     | Mail  |
| <b>Connection</b> |   |
| Address:          | <smtpserver>:<port>                         |
| Proxy Type:       | On-Premise                                  |
| Location ID:      | <CC Location ID>                            |
| Authentication:   | Encrypted User/Password                     |
| <b>Processing</b> |   |
| Credential Name:  | <Credential Name>                           |
| From:             | sender@address.com                          |
| To:               | receiver1@address.com,receiver2@address.com |
| Cc:               | <Copy List>                                 |

### 3.3.5 Configure More Parameter

Please maintain Business Partner Group ID that supplier should not belong to in SAP S/4HANA (split by comma) in BusinessPartnerGrouping, Company Code that supplier should belong to in SAP S/4HANA(split by comma) in CompanyCode and SAP S/4HANA client number in SAP Client. For CheckPayload, if true, then the iflow will write the API response to attachment for customer to check, if false then no log attachment will be created. For Initialload, if true, then this iflow will replicate all vender and vendor group information to SAP Concur, if false, iflow will only replicate delta vendor and vendor group info to SAP Concur based on last successful run timestamp. For Parallelism, it determines how many threads will be used to concurrent process OData query to SAP S/4HANA to get supplier information, and for SplitterGroup it determines how many supplier queries should be combined in one group when parallel call SAP S/4HANA OData API. From general recommendation perspective, use the default setting 10 and 100 as a starting point.

## Configure "Replicate Vendor and Vendor Group from SAP S4HANA to SAP Concur"

Timer    Receiver    **More**

|                          |   |
|--------------------------|---|
| Type:                    | All Parameters                                  |
| BusinessPartnerGrouping: | <BusinessPartnerGroup1>,<BusinessPartnerGroup1> |
| CheckPayload:            | true or false                                   |
| CompanyCode:             | <CompanyCode1>,<CompanyCode2>                   |
| InitialLoad:             | true or false                                   |
| Parallelism:             | 10  |
| SAP Client:              | <S/4HANA client number>                         |
| SplitterGroup:           | 100   |