

Configuration Guide
Integration between SAP Concur and OpenText
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English

CUSTOMER

Integration between SAP Concur and OpenText

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1 Prerequisites

This content is connecting to a Third Party system called OpenText. Please be aware of the fact that you might need to consult an OpenText expert and conduct some configuration steps in the Third Party system, that aren't defined here.

This content is also connecting to SAP Concur APIs according to [SAP API Business Hub](#). You might also involve an SAP Concur expert for this set up.

2 Documentation

This package retrieves travel requests from the [Concur Request API](#) and replicates it into a specific work space in OpenText. It also considers the comments made in the SAP Concur travel request as well as the expenses of this travel request, by iterating through them.

This package includes 5 Iflows:

- Timer_Triggers the replication of travel requests from SAP Concur to OpenText
 - o This iflow is called by the SAP Cloud Integration Timer iflow and replicates the travel requests from SAP Concur to OpenText.
- ProcessDirect_Authenticate to OpenText
 - o This process direct Iflow authenticates to OpenText
- ProcessDirect_Authenticate to SAP Concur
 - o This process direct Iflow authenticates to the SAP Concur APIs
- Process Direct iFlow replicates travel requests from SAP Concur to OpenText
 - o This iflow is called by the SAP Cloud Integration Timer iflow and replicates the travel requests from SAP Concur to OpenText.
- Replicate travel request from SAP Concur to OpenText via Cognos reports
 - o This iflows picks up the cognos files from a SFTP server and replicates it to a specific folder in OpenText.

3 Timer_Triggers the replication of travel requests from SAP Concur to OpenText – Configuration Guide

This IFlow orchestrates the replication of the travel requests from SAP Concur to OpenText by handling the Authentication to SAP Concur and OpenText, by requesting the data from SAP Concur API and calling the iFlow to replicate the data to OpenText.

It is hence separated into one main integration process "Integration Process", which is started by the Timer and looping over each travel request batch from the SAP Concur API, and 3 subprocesses:

- Mainprocess:
 - o Orchestrates the request to get the authentication information for Concur and OpenText as well as requests the travel requests data from SAP Concur.
 - o It then iterates through each travel request and orchestrates the process direct call to the iFlow "Process Direct iFlow replicates travel requests from SAP Concur to OpenText" which transfers the data to OpenText.
- Prepare Authentication for Endsystems:
 - o Calls the Process Direct iFlow "ProcessDirect_Authenticate to OpenText" to get the authentication information from OpenText
 - o Calls the Process Direct iFlow "ProcessDirect_Authenticate to SAP Concur" to get the authentication information from SAP Concur
 - o The information are then stored in a header parameter.
- GetConcur Reisendenakte
 - o Requests the data from the [Concur Request API](#).

3.1 Configure Timer

You would need to configure the Timer on a regular basis. It is recommended to set the timer once or twice a day.

3.2 Configure Receiver Adapters

CPIPD:

- Call to IFlow "ProcessDirect_Authenticate to OpenText"
- Address: "PD_Auth_OpenText"
 - o It should be the same as defined in the Sender Adapter of this IFlow.

CPIPD2:

- Call to IFlow "ProcessDirect_Authenticate to SAP Concur"
- Address: "PD_Auth_Concur"
 - o It should be the same as defined in the Sender Adapter of this IFlow.

CPI:

- Call to the iFlow "Process Direct iFlow replicates travel requests from SAP Concur to OpenText"
- Address: "/Concur/OpenText/TravelRequest"
 - o It should be the same as defined in the Sender Adapter of this IFlow.

3.3 Configure Parameters

Please use the Security Material area in order to define the Credentials for OpenText and SAP Concur.

In the "More" tab you would need to configure the following parameters:

- Concur_API_TravelRequest_Address: URL of the [Concur Request API](#)
- Concur_API_TravelRequest_Query: Define the Query on order to select the required data from SAP Concur, e.g. view=ALL&limit=100&modifiedBefore=\${property.EXEC_TIME}&modifiedAfter=\${property.LAST_EXEC_TIME}
- CONCUR_DATA_STATUS_FILTER: Set Filter Option based on the status of the Concur travel request
- LAST_EXEC_TIME: Initial time from which the Iflow should request the data for the first time.

4 ProcessDirect_Authenticate to OpenText

This Process direct Iflow requests the Authentication information from OpenText and stores it in a header parameter. This header parameter is picked up by the other Iflows.

4.1 Configure Sender Adapter

Address: Define the process direct sender inbound address.

4.2 Configure Receiver Adapter

OT_Authentication:

OT_CWS_HOST: Enter the Host of the OpenText system that is used for the Web Service /cws/services/Authentication.

Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

The address is created by "http://{{OT_CWS_HOST}}/cws/services/Authentication.

4.3 Configure Parameters

Please use the Security Material area in order to define the Credentials for OpenText and SAP Concur.

In the "More" tab you would need to configure the following parameters:

OpenText_Credential_Store: The name of the security artefact defined in the Security Material for the OpenText credentials.

4.4 Configure Cloud Connector

If the OpenText system is an On-Premise System you would need to configure the Cloud Connector accordingly. OpenText would be maintained as Third Party.

Please refer to [SAP BTP Connectivity](#).

4.5 Configure OpenText

Please be aware that you might consult an OpenText integration expert in order to make the APIs available.

5 ProcessDirect_Authenticate to SAP Concur

This Process direct Iflow requests the Authentication information from SAP Concur and stores it in a header parameter. This header parameter is picked up by the other Iflows.

5.1 Configure Sender Adapter

Address: Define the process direct sender inbound address.

5.2 Configure Receiver Adapter

Concur_Authentication:

Address: Enter the URL of the SAP Concur system for authentication.

5.3 Configure Parameters

Please use the Security Material area in order to define the Credentials for SAP Concur. It is using an OAuth2 Client Credentials artefact.

In the "More" tab you would need to configure the following parameters:

Concur_Credential_Store: The name of the security artefact defined in the Security Material for the SAP Concur credentials.

Concur_RefreshToken: Enter the refresh token for the SAP Concur API.

6 Process Direct iFlow replicates travel requests from SAP Concur to OpenText

This Process direct iFlow coordinates the transfer of the travel request data to OpenText. It also includes requesting additional information for the travel request expenses as well as the travel request comments via the [SAP Concur API](#) (/requests/{requestUuid}/comments, /requests/{requestUuid}/expenses and /expenses/{expenseUuid}/comments)

In OpenText a specific workspace is either created or an already for this travel request existing work space is taken, and all documents are transferred to this work space. It also includes Updates to the travel requests.

The main Integration Process is calling the subprocess "Mainprocess". This subprocess is gathering relevant information for the creation or identification of the workspace in OpenText as well as orchestrating the requests for the travel request comments and expense information in SAP Concur.

The subprocess are the following:

- Concur_Get Concur Data: requesting more information about a specific SAP Concur API
- Concur_Get Expenses: requesting information about the expenses of a travel request and its comments.
- Concur_Get Comment: requesting information about the comment of a travel request
- OpenText_Publication process: orchestrates the identification or creation of the work space in OpenText as well as posting it to OpenText. If the document already exists it will be updated with a newer version.
- OpenText_Get Workspace NodeID: identifies or creates a workspace in OpenText based on the following properties (please note that this should be discussed with an OpenText expert and is customizable):
 - o TRAVELID: ID of the travel request in Concur
 - o STARTDATE: start date of the travel request
 - o ENDDATE: end date of the travel request
 - o ORGID: organizational assignment of the travel request
- OpenText_Get NodeID by Name: returns an ID if a document or folder exists in the Workspace in OpenText.
- OpenText_Create and Post Document: Posts the Payload to the specific folder to OpenText.
- OpenText_Update Document: Updates the document with a newer version in OpenText
- OpenText_Generate Payload: Concatenates and generates the final XML file that is replicated to OpenText, it is also base64 encrypted.

6.1 Configure Sender Adapter

Address: Define the process direct sender inbound address.

6.2 Configure Receiver Adapter

OT_WS_GetNodeID

- OT_SAPXECM_HOST: Enter the Host of the OpenText system that is used for the Web Service /otsapxecm/services/ECMLink.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the iFlow.

Concur_Authentication

- Address: Enter the URL of the SAP Concur system for authentication.

OT_GetNodeIDbyName

- OT_CWS_HOST: Enter the Host of the OpenText system that is used for the Web Service /cws/services/DocumentManagement.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the iFlow.

OT_PostDocument

- OT_CWS_HOST: Enter the Host of the OpenText system that is used for the Web Service /cws/services/DocumentManagement.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_AddVersion

- OT_CWS_HOST: Enter the Host of the OpenText system that is used for the Web Service /cws/services/DocumentManagement.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_CreateWS

- OT_SAPXECM_HOST: Enter the Host of the OpenText system that is used for the Web Service /otsapxecm/services/ECMLink.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

CPIPD

- Call to Iflow "ProcessDirect_Authenticate to OpenText"
- Address: "PD_Auth_OpenText"
 - o It should be the same as defined in the Sender Adapter of this Iflow.

OT_UpdateContent

- OT_CWS_HOST: Enter the Host of the OpenText system that is used for the Web Service /cws/services/ContentService.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

6.3 Configure Parameters

In the "More" tab you would need to configure the following parameters:

- Concur_ClientId: Client ID for the SAP Concur API
- Concur_ClientSecret: Client Secret for the SAP Concur API
- Concur_RefreshToken: RefreshToken for the SAP Concur API
- LAST_EXEC_TIME: Initial time from which the Iflow should request the data for the first time.
- OpenText_CreateWorkspace: Defines the Body for creating a workspace in OpenText, please see also below the payload example.
- OpenText_Credentials: The name of the security artefact defined in the Security Material for the OpenText credentials.
- OpenText_FolderName: Enter the OpenText folder, in which the documents should be transferred. This Folder should be created in the Workspace created earlier.
- OpenText_Stylesheet_Version: It defines the version of the current stylesheet and is indicating updates on the Payload structure.
- OT_ExternalSystemId: Defines the external system ID defined in the workspace in OpenText.
- OT_ObjectType: Defines the object type defined in the workspace in OpenText.

Create Workspace payload example:

```
<?xml version='1.0' encoding='UTF-8'?>
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Header>
    <OTAAuthentication xmlns="urn:api.ecm.opentext.com" xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
      <AuthenticationToken>${header.AuthenticationKey_OpenText}</AuthenticationToken>
    </OTAAuthentication>
  </S:Header>
  <S:Body>
    <CreateWorkspace>
      <Workspace>
        <Name>Test Workspace</Name>
        <FolderName>Test Folder</FolderName>
        <ExternalSystemId>Test System</ExternalSystemId>
        <ObjectType>Test Object</ObjectType>
      </Workspace>
    </CreateWorkspace>
  </S:Body>
</S:Envelope>
```

```

</S:Header>
<S:Body>
  <ns5:createOrUpdateWorkspaces xmlns="urn:api.ecm.opentext.com" xmlns:ns2="urn:Core.service.livelink.opentext.com"
xmlns:ns3="urn:DocMan.service.livelink.opentext.com" xmlns:ns4="urn:gswstoolsservice.service.livelink.opentext.com"
xmlns:ns5="urn:ECMLink.service.livelink.opentext.com">
    <ns5:externalSystemId>${property.ExternalSystemId}</ns5:externalSystemId>
    <ns5:bolInfos>
        <ns5:ObjectId>${property.ObjectId}</ns5:ObjectId>
        <ns5:ObjectType>${property.ObjectType}</ns5:ObjectType>
        <ns5:Properties>
            <ns5:Name>TRAVELID</ns5:Name>
            <ns5:Values>${property.ObjectId}</ns5:Values>
        </ns5:Properties>
        <ns5:Properties>
            <ns5:Name>STARTDATE</ns5:Name>
            <ns5:Values>${property.StartDate}</ns5:Values>
        </ns5:Properties>
        <ns5:Properties>
            <ns5:Name>ENDDATE</ns5:Name>
            <ns5:Values>${property.EndDate}</ns5:Values>
        </ns5:Properties>
        <ns5:Properties>
            <ns5:Name>ORGID</ns5:Name>
            <ns5:Values>${property.Org_ID}</ns5:Values>
        </ns5:Properties>
    </ns5:bolInfos>
  </ns5:createOrUpdateWorkspaces>
</S:Body>
</S:Envelope>

```

6.4 Configure Cloud Connector

If the OpenText system is an On-Premise System you would need to configure the Cloud Connector accordingly. OpenText would be maintained as Third Party.

Please refer to [SAP BTP Connectivity](#).

6.5 Configure OpenText

Please be aware that you might consult an OpenText integration expert in order to make the APIs available.

7 Replicate travel request from SAP Concur to OpenText via Cognos reports– Configuration Guide

This Iflow is picking up the Cognos reports from an SFTP server and transfers it into a specific folder in OpenText. The Cognos report would need to be configured accordingly and posted to the SFTP server.

It is separated into one main integration process “Integration Process” and 5 subprocesses:

- Integration Process: This process is connected to the SFTP server on Sender side. It decrypts the file and orchestrates the replication to a specific folder in OpenText.
- Authentication_Process_OT: Authenticates to the OpenText APIs
- GetNodeDbName_OT: Gets the folder Id from OpenText based on the name of the folder.
- OT_GetNodebyNickname: It checks whether the Document already exists in OpenText.
- Create and Post Document: The process creates the payload and checks whether the document already exist in the folder in OpenText. Depending on the response it is creating or updating the document.
- OT_Update Document: Updates the existing document in OpenText.

7.1 Configure SFTP Server

Please follow this [guide](#) in order to set up the connection to the SFTP server.

7.2 Configure Receiver Adapters

OT_Authentication:

- Address: Define the Address from OpenText for the Authentication Web Service /cws/services/Authentication.
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_GetNodeByNickname:

- Address: Define the Address from OpenText for the Web Service GetNodeByNickname /cws/services/DocumentManagement
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_PostDocument

- Address: Define the Address from OpenText for the Web Service CreateDocument /cws/services/DocumentManagement
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_GetNodeByName:

- Address: Define the Address from OpenText for the Web Service GetNodeByName /cws/services/DocumentManagement
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_UpdateDocument

- Address: Define the Address from OpenText for the Web Service UpdateDocument /cws/services/ContentService
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

OT_AddVersion

- Address: Define the Address from OpenText for the Web Service AddVersion /cws/services/DocumentManagement
- Proxy Type: Define the Proxy Type, if it is On-Premise you would also need to configure the Cloud Connector as well setting the Location ID in the Iflow.

7.3 Configure Parameters

Please use the Security Material area in order to define the Credentials for OpenText and Fieldglass.

In the "More" tab you would need to configure the following parameters:

- pgp_UserID: User ID used for the pgp decryption of the payload.
- OpentextCommUser: Enter the OpenText Credentials defined in the Security Material
- OT_Folder_Nickname: Enter the OpenText folder, in which the documents should be transferred.

7.4 Configure Cognos report

Please be aware that you might consult an SAP Concur expert in order to set up the Cognos report as well as posting it to the SFTP server.

7.5 Configure Cloud Connector

If the OpenText system is an On-Premise System you would need to configure the Cloud Connector accordingly. OpenText would be maintained as Third Party.

Please refer to [SAP BTP Connectivity](#).

7.6 Configure OpenText

Please be aware that you might consult an OpenText integration expert in order to make the APIs available.