Oracle® Cloud

Using the SAP Concur Adapter with Oracle Integration Generation 2

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Preface

This guide describes how to configure this adapter as a connection in an integration in Oracle Integration.

> ✎ **Note:**
>
> The use of this adapter may differ depending on the features you have, or whether your instance was provisioned using Standard or Enterprise edition. These differences are noted throughout this guide.

Topics:

- Audience
- Documentation Accessibility
- Diversity and Inclusion
- Related Resources
- Conventions

Audience

This guide is intended for developers who want to use this adapter in integrations in Oracle Integration.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also

mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

See these Oracle resources:

*   Oracle Cloud

    http://cloud.oracle.com

*   *Using Integrations in Oracle Integration Generation 2*
*   *Using the Oracle Mapper with Oracle Integration Generation 2*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Understand the SAP Concur Adapter

Review the following conceptual topics to learn about the SAP Concur Adapter and how to use it as a connection in integrations in Oracle Integration. A typical workflow of adapter and integration tasks is also provided.

Topics:

- SAP Concur Adapter Capabilities
- What Application Version Is Supported?
- SAP Concur Adapter Use Cases
- Workflow to Create and Add an SAP Concur Adapter Connection to an Integration

> ✏️ **Note:**
>
> There are overall service limits for Oracle Integration. A service limit is the quota or allowance set on a resource. See Service Limits.

SAP Concur Adapter Capabilities

Use the SAP Concur Adapter with Swagger API versions 3.0 and 3.1 to perform travel and expense operations.

The SAP Concur Adapter requires no custom coding and the integration can be completed quickly without the need to hire a team of SAP Concur application programming specialists. The SAP Concur Adapter allows you to quickly import expense categories, employee data, customers, classes, and jobs. Use the SAP Concur Adapter to eliminate duplicate manual data entry and achieve faster data synchronization.

The SAP Concur Adapter provides support for SAP Concur's Extract API and Payment Batch API. SAP Concur's Extract Web Service enables you to request the extract of available data objects, such as approved expense reports, travel requests, and payment requests. SAP Concur's Payment Batch API enables you to manage payment batches and collect their batch files.

> ✏️ **Note:**
>
> You must know your edition of the SAP Concur application to correctly configure the SAP Concur Adapter on the Connections page.
> See Identify the SAP Concur Application Edition.

The SAP Concur Adapter is one of many predefined adapters included with Oracle Integration. You can configure the SAP Concur Adapter as an invoke in Oracle Integration.

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the Connectivity Certification Matrix.

See Connectivity Certification Matrix.

SAP Concur Adapter Use Cases

Common use cases for the SAP Concur Adapter are as follows:

- Create users and attendees synchronization with customer ERP/HCM systems.
- Retrieve payment balances to synchronize with a customer financial system.
- Create an expense and manage workflow approval process.
- Synchronize financial data in real time with a supply chain.

Workflow to Create and Add an SAP Concur Adapter Connection to an Integration

You follow a very simple workflow to create a connection with an adapter and include the connection in an integration in Oracle Integration.

Step	Description	More Information
1	Create the adapter connections for the applications you want to integrate. The connections can be reused in multiple integrations and are typically created by the administrator.	Create a SAP Concur Adapter Connection
2	Create the integration. When you do this, you add trigger and invoke connections to the integration.	Create Integrations and Add the SAP Concur Adapter Connection to an Integration
3	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data in *Using Integrations in Oracle Integration Generation 2*
4	(Optional) Create lookups that map the different values used by those applications to identify the same type of object (such as gender codes or country codes).	Manage Lookups in *Using Integrations in Oracle Integration Generation 2*
5	Activate the integration.	Manage Integrations in *Using Integrations in Oracle Integration Generation 2*
6	Monitor the integration on the dashboard.	Monitor Integrations in *Using Integrations in Oracle Integration Generation 2*
7	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Manage Business Identifiers for Tracking Fields in Messages in *Using Integrations in Oracle Integration Generation 2*

Step	Description	More Information
8	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in *Using Integrations in Oracle Integration Generation 2*

2

Create a SAP Concur Adapter Connection

A connection is based on an adapter. You define connections to the specific cloud applications that you want to integrate.

Topics:

- [Prerequisites for Creating a Connection](#)
- [Create a Connection](#)
- [Upload an SSL Certificate](#)

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the SAP Concur Adapter.

- [Identify the SAP Concur Application Edition](#)
- [Obtain the Consumer Key and Consumer Secret](#)
- [Enable the APIs](#)
- [Enable the Permissions for the Extract API and Payment Batch API for the Registered Application](#)

Identify the SAP Concur Application Edition

There are two types of SAP Concur application editions: Professional Edition and Standard Edition. Perform the following steps to identify the edition of the SAP Concur application you are using before creating an SAP Concur connection.

1. Sign in to the SAP Concur application.

2. In the upper right corner, select the **Administration** list.

3. Select **Expenses** > **Expense Admin**.
   The **Expense Admin** option is available only in the Professional Edition. In the Standard edition, the **Expense Admin** option is unavailable. Therefore, you can identify your SAP Concur application edition.

Obtain the Consumer Key and Consumer Secret

The SAP Concur administrator must perform the following tasks to obtain the consumer key and consumer secret.

1. Sign in to the SAP Concur application.

2. In the upper right corner, select the **Administration** list.

3. Select **Company** > **Web Services**.

4. From the left navigation pane, select **Register Partner Application**.

5. Click **New** to register a new partner application.

   The New Partner Application dialog is displayed.

6. Fill in the required details and select the APIs.

   The key and secret are mentioned in the **Application Authorization** section at the bottom of the dialog.

7. Save this information because it is required when creating a connection in Configure Connection Security.

8. Click **OK**.

Enable the APIs

Enable the APIs to use to complete operations. To enable and add APIs, see the SAP Concur documentation.

Enable the Permissions for the Extract API and Payment Batch API for the Registered Application

The SAP Concur administrator must perform the following tasks to enable the permissions for the Extract API and Payment Batch API for the registered application.

1. Sign in to the SAP Concur application.

2. In the upper right corner, select the **Administration** list.

3. Select **Company** > **Web Services**.

4. From the left navigation pane, select **Register Partner Application**.

5. Select the registered application and click **Modify**.
   The Modify Partner Application dialog is displayed.

6. Select the **Extract – Request Extract of Available Data** and **Payment Batch – Close Batches and Request Batch Export Files** APIs to enable the permissions for the Extract API and Payment Batch API.

7. Click **OK**.

Create a Connection

Before you can build an integration, you have to create the connections to the applications with which you want to share data.

To create a connection in Oracle Integration:

1. In the left navigation pane, click **Home** > **Integrations** > **Connections**.

2. Click **Create**.

> **✎ Note:**
>
> You can also create a connection in the integration canvas of:
>
> - An orchestrated integration (See Define Inbound Triggers and Outbound Invokes.)
>
> - A basic routing integration (See Add a Trigger (Source) Connection.)

3. In the Create Connection — Select Adapter dialog, select the adapter to use for this connection. To find the adapter, scroll through the list, or enter a partial or full name in the **Search** field and click
🔍
Search.

4. In the Create Connection dialog, enter the information that describes this connection.

   a. Enter a meaningful name to help others find your connection when they begin to create their own integrations. The name you enter is automatically added in capital letters to the **Identifier** field. If you modify the identifier name, don't include blank spaces (for example, `SALES OPPORTUNITY`).

   b. Enter optional keywords (tags). You can search on the connection keywords on the Connections page.

   c. Select the role (direction) in which to use this connection (trigger, invoke, or both). Only the roles supported by the adapter are displayed for selection. When you select a role, only the connection properties and security policies appropriate to that role are displayed on the Connections page. If you select an adapter that supports both invoke and trigger, but select only one of those roles, you'll get an error when you try to drag the adapter into the section you didn't select. For example, let's say you configure a connection for the Oracle Service Cloud (RightNow) Adapter as only an **invoke**. Dragging the adapter to a **trigger** section in the integration produces an error.

   d. Enter an optional description of the connection.

5. Click **Create**.

   Your connection is created. You're now ready to configure the connection details, such as connection properties, security policies, connection login credentials, and (for certain connections) agent group.

Configure Connection Properties

Enter connection information so your application can process requests.

1. Go to the **Connection Properties** section.

2. In the **Concur Instance URL** field, enter the URL for the SAP Concur application host location. This is the same URL that you use to log in to SAP Concur.

   The URL to specify is based on where the application is hosted:

   - USA: `https://www.concursolutions.com`

   - EMEA: `https://eu1.concursolutions.com`

   - China: `https://cn.api.concurcdc.cn/api/version`
     In addition to these URLs, the SAP Concur Adapter supports the following URLs for APIs that are using the Resource Owner Password Credentials (ROPC) security policy:

- US: `https://us.api.concursolutions.com`

- EMEA: `https://emea.api.concursolutions.com`

- China: `https://cn.api.concurcdc.cn`

3. In the **Edition** field, select the SAP Concur application edition. You must know whether you are using the Professional Edition or Standard Edition. See Identify the SAP Concur Application Edition.

Configure Connection Security

Use this procedure to configure security for your SAP Concur Adapter connection.

1. Go to the **Security** section.

2. From the **Security Policy** list, select the security policy.

   - **Concur Resource Owner Password Credentials Policy** (Deprecated)

   - **Resource Owner Password Credentials**

   > **Note:**
   >
   > The Concur Resource Owner Password Credentials Policy is now deprecated by SAP Concur. The SAP Concur Adapter recommends creating new connections using the Resource Owner Password Credentials (ROPC) security policy and configuring existing integrations accordingly to avoid potential connection issues.

3. If you select **Concur Resource Owner Password Credentials Policy** (Deprecated):

   a. In the **Consumer Key** field, enter the consumer key for the SAP Concur account. You created the consumer key and consumer secret to specify in Prerequisites for Creating a Connection.

   b. In the **Consumer Secret** field, enter the consumer secret.

   c. In the **Confirm Consumer Secret** field, enter the consumer secret again.

   d. In the **Username** field, enter the user name for the SAP Concur account.

   e. In the **Password** field, enter the password for the SAP Concur account.

   f. In the **Confirm Password** field, enter the password for the SAP Concur account.

4. If you select **Resource Owner Password Credentials**:

   a. In the **Client Id** field, enter the client ID.

   b. In the **Client Secret** field, enter the client secret.

   > **Note:**
   >
   > The client ID is a unique Universally Unique ID (UUID) identifier for your SAP Concur application. You can obtain the client ID and client secret from your Partner Account Manager.

   c. In the **Confirm Client Secret** field, enter the client secret again.

   d. In the **Username** field, enter the user name for the SAP Concur account.

   e. In the **Password** field, enter the password for the SAP Concur account.

        f.   In the **Confirm Password** field, re-enter the password a second time for confirmation.

Test the Connection

Test your connection to ensure that it's configured successfully.

1. In the page title bar, click **Test**. What happens next depends on whether your connection uses a Web Services Description Language (WSDL) file.

If Your Connection...	Then...
Doesn't use a WSDL	The test starts automatically and validates the inputs you provided for the connection.
Uses a WSDL	A dialog prompts you to select the type of connection testing to perform: • **Validate and Test**: Performs a full validation of the WSDL, including processing of the imported schemas and WSDLs. Complete validation can take several minutes depending on the number of imported schemas and WSDLs. No requests are sent to the operations exposed in the WSDL. • **Test**: Connects to the WSDL URL and performs a syntax check on the WSDL. No requests are sent to the operations exposed in the WSDL.

2. Wait for a message about the results of the connection test.

   • If the test was successful, then the connection is configured properly.

   • If the test failed, then edit the configuration details you entered. Check for typos, verify URLs and credentials, and download the diagnostic logs for additional details. Continue to test until the connection is successful.

3. When complete, click **Save**.

Upload an SSL Certificate

Certificates are used to validate outbound SSL connections. If you make an SSL connection in which the root certificate does not exist in Oracle Integration, an exception is thrown. In that case, you must upload the appropriate certificate. A certificate enables Oracle Integration to connect with external services. If the external endpoint requires a specific certificate, request the certificate and then upload it into Oracle Integration.

To upload an SSL certificate:

1. In the left navigation pane, click **Home** > **Settings** > **Certificates**.
   All certificates currently uploaded to the trust store are displayed in the Certificates dialog. The

   link enables you to filter by name, certificate expiration date, status, type, category, and installation method (user-installed or system-installed). Certificates installed by the system cannot be deleted.

2. Click **Upload** at the top of the page.
The Upload Certificate dialog box is displayed.

3. Enter an alias name and optional description.

4. In the **Type** field, select the certificate type. Each certificate type enables Oracle
Integration to connect with external services.

- **X.509 (SSL transport)**

- **SAML (Authentication & Authorization)**

- **PGP (Encryption & Decryption)**

X.509 (SSL transport)

1. Select a certificate category.

   a. **Trust**: Use this option to upload a trust certificate.

      i. Click **Browse**, then select the trust file (for example, `.cer` or `.crt`) to upload.

   b. **Identity**: Use this option to upload a certificate for two-way SSL communication.

      i. Click **Browse**, then select the keystore file (`.jks`) to upload.

      ii. Enter the comma-separated list of passwords corresponding to key aliases.

      > **✎ Note:**
      >
      > When an identity certificate file (JKS) contains more than one private key,
      > all the private keys must have the same password. If the private keys are
      > protected with different passwords, the private keys cannot be extracted
      > from the keystore.

      iii. Enter the password of the keystore being imported.

   c. Click **Upload**.

SAML (Authentication & Authorization)

1. Note that **Message Protection** is automatically selected as the only available certificate
category and cannot be deselected. Use this option to upload a keystore certificate with
SAML token support. Create, read, update, and delete (CRUD) operations are supported
with this type of certificate.

2. Click **Browse**, then select the certificate file (`.cer` or `.crt`) to upload.

3. Click **Upload**.

PGP (Encryption & Decryption)

1. Select a certificate category. Pretty Good Privacy (PGP) provides cryptographic privacy and authentication for communication. PGP is used for signing, encrypting, and decrypting files. You can select the private key to use for encryption or decryption when configuring the stage file action.

   a. **Private**: Uses a private key of the target location to decrypt the file.

      i. Click **Browse**, then select the PGP file to upload.

      ii. Enter the PGP private key password.

   b. **Public**: Uses a public key of the target location to encrypt the file.

      i. Click **Browse**, then select the PGP file to upload.

      ii. In the **ASCII-Armor Encryption Format** field, select **Yes** or **No**. **Yes** shows the format of the encrypted message in ASCII armor. ASCII armor is a binary-to-textual encoding converter. ASCII armor formats encrypted messaging in ASCII. This enables messages to be sent in a standard messaging format. This selection impacts the visibility of message content. **No** causes the message to be sent in binary format.

      iii. From the **Cipher Algorithm** list, select the algorithm to use. Symmetric-key algorithms for cryptography use the same cryptographic keys for both encryption of plain text and decryption of cipher text.

   c. Click **Upload**.

3

Add the SAP Concur Adapter Connection to an Integration

When you drag the SAP Concur Adapter into the invoke area of an integration, the Adapter Endpoint Configuration Wizard appears. This wizard guides you through configuration of the SAP Concur Adapter endpoint properties.

These topics describe the wizard pages that guide you through configuration of the SAP Concur Adapter as an invoke in an integration. The SAP Concur Adapter cannot be used as a trigger in an integration.

Topics:

- Basic Info Page
- Invoke API Option Page
- Invoke Operations Page
- Summary Page

Basic Info Page

You can enter a name and description on the Basic Info page of each adapter in your integration.

Element	Description
What do you want to call your endpoint?	Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and hyphens in the name. You can't include the following characters: • No blank spaces (for example, `My Inbound Connection`) • No special characters (for example, `#;83&` or `righ(t)now4`) except underscores and hyphens • No multibyte characters
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example: `This connection receives an inbound request to synchronize account information with the cloud application.`

Invoke API Option Page

Select the APIs to use.

Element	Description
API	Select the API to use in the integration.
	• **Swagger API**: Enables you to perform create, update, delete, and get operations in the SAP Concur application.
	• **Extract API**: Enables you to request the extract of available data objects, such as approved expense reports, travel requests, and payment requests.
	• **Payment Batch API**: Enables you to manage payment batches and collect their batch files.
	Note: The payment Batch API is not available for selection if you are using SAP Concur's Professional Edition.
API Description	Describes the selected API.

Invoke Operations Page

Select the SAP Concur Adapter invoke operation values for your integration.

You identify the operation type and the operations to perform in the SAP Concur application.

Element	Description
Select Operation Type - **Swagger API** option	If you selected **Swagger API** on the API Options page, these are the available operations:
	• **Create**
	• **Update**
	• **Delete**
	• **Get**

Element	Description
Select Operation Type - **Extract API** option	If you selected **Extract API** on the API Options page, these are the available operations:
	• **SubmitJobRequest**: Submits a job request. After selecting this option, you select an extract corresponding to the job to post to the SAP Concur application. The response of this operation contains the link (**status-link**) to track the status of the submitted job. The Summary page of the **SubmitJobRequest** operation shows the file headers of the file(s) returned after the job is completed. You can use the **RetrieveFile** operation to get the extract file(s) for the job and use the file headers on the Summary page for further processing of the file(s).
	Note: In SAP Concur Standard Edition, only jobs for Invoice GL Extract can be submitted, as provisioned by SAP Concur.
	• **Getjobdetails**: Fetches the details of the past 100 jobs submitted to the SAP Concur application corresponding to the extract you select.
	• **GetJobstatus**: Takes **jobStatusLink** as input in the payload and returns the status of the job.
	Note:
	– The **Status** element's value (the status of the job) in the response is **2**, as returned by SAP Concur if the job is completed.
	– The link for the extract file is not available in the response until the job status is completed.
	– The **jobStatusLink** is returned by the **SubmitJobRequest** or **GetJobDetails** operation in the response.
	• **RetrieveFile**: Takes **file-link** as input in the payload and returns a CSV file(s) (if **file-link** returns a ZIP, extraction is handled by the adapter) based on the response of the respective **file-link**. You can use the **RetrieveFile** operation to get the extract data corresponding to the file link. The **RetrieveFile** operation downloads the file to a virtual file system (VFS) directory. The VFS location of the downloaded file is returned in the response of the **RetrieveFile** operation, along with the file(s) name.
	Note: The **file-link** value is used as the URI when retrieving the extract data. You cannot get the **file-link** until the job is in a running stage.
Select Operation Type - **Payment Batch API** option	If you selected **Payment Batch API** on the API Options page, these are the available operations with SAP Concur's Standard Edition:
	• **CloseBatch**: Closes the specified batch based on the payment batch you select. This prevents any new expenses from entering. The batch list corresponding to the SAP Concur instance is displayed. You must select the payment batch required to be closed from the Select Payment Batch section. A request is sent to the SAP Concur application to close the respective batch. After the batch is closed, SAP Concur creates the batch file containing the expense information. The response of this operation contains the link (**file-link**) to get the corresponding Payment Batch file(s) by using this link as input to the **RetrieveFile** operation.
	• **RetrieveFile**: Gets the file for the corresponding batch once the batch is closed. This operation takes **file-link** as input in the payload and returns a CSV file(s) (if the **file-link** returns a ZIP, extraction is handled by the adapter) based on the response of the respective **file-link**.
Select Operation	Selects the API operation to perform.

Element	Description
Select Extract	Selects the extract to perform.
Description	A description of the API operation that is performed.

Summary Page

You can review the specified adapter configuration values on the Summary page.

Element	Description
Summary	Displays a summary of the configuration values you defined on previous pages of the wizard.
	The information that is displayed can vary by adapter. For some adapters, the selected business objects and operation name are displayed. For adapters for which a generated XSD file is provided, click the XSD link to view a read-only version of the file.
	To return to a previous page to update any values, click the appropriate tab in the left panel or click **Back**.
	To cancel your configuration details, click **Cancel**.

4

Implement Common Patterns Using the SAP Concur Adapter

You can use the SAP Concur Adapter to implement the following common patterns.

Topics:

- Synchronize Campaign Cost Data Between Salesforce.com and SAP Concur
- Use the Extract API in a Scheduled Orchestrated Integration

Synchronize Campaign Cost Data Between Salesforce.com and SAP Concur
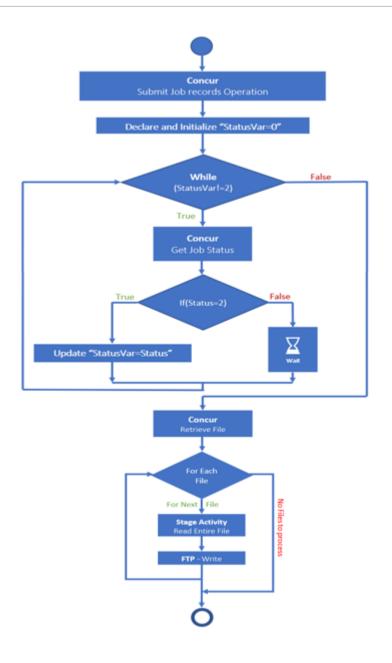
This use case describes how the SAP Concur Adapter is used to synchronize campaign cost data between Salesforce.com and SAP Concur in real-time.

- A new campaign is created in Salesforce.com.
- Campaign data is sent from Salesforce.com to the SAP Concur Adapter.
- The SAP Concur Adapter sends the campaign data to SAP Concur.
- Campaign data from Salesforce.com is used to populate the campaign name and campaign cost fields in an SAP Concur expense report.
- When the campaign costs change in Salesforce.com, the updated data is sent to the SAP Concur Adapter and then SAP Concur where the expense report is updated.

Use the Extract API in a Scheduled Orchestrated Integration

This use case provides a high level overview of how to submit a job, get job status, and retrieve the extract data of the job created by using the SAP Concur Adapter Extract API.

1. Select and configure the SAP Concur Adapter on the Connections page.

2. Create a scheduled orchestrated integration.

3. Drag the SAP Concur Adapter into the integration as an invoke connection.

    a. On the API Option page, select **Extract API**.

       This API enables you to request the extract of available data objects, such as approved expense reports, travel requests, and payment requests.

    b. On the Operations page, select **SumbitJobRequest** from the **Select Operation** list to configure the SAP Concur Adapter to submit the job.

4. In the request mapper, map **startTime** to **POST**.

5. Add an assign activity.

    a. Create two variables to store the status of the job (for this example, named **done**) and a file link to retrieve the file (for this example, named **Filelikvar**).

6. Configure a while action below the assign action to check the status for the submitted job.

    a. Configure the condition for the status (**"done! =2"**).

> **Note:**
>
> The status of the job is **2** if the job is completed. This is returned by SAP Concur.

7. Drag a second SAP Concur Adapter inside the while loop and configure the adapter to get the job status.

    a. On the API Option page, select **Extract API**.

    b. On the Operations page, select **GetJobStatus** from the **Select Operation** list.

8. Map **status-link** from the **SubmitJobRequest** operation's response to **JobStatusLink** in the request of the **GetJobStatus** operation.

9. Drag a switch action into the integration.

   a. Configure the condition for the **status** variable to check the job status.

10. Drag an assign action in the switch action to update the status.

    If the status is completed (that is, **status = "2"**), it is updated in the variable created in Step 5.

   a. Update **done** to **status** and **Filelikvar** to **file-link**.

   b. In the **Otherwise** condition of the switch action, drag a wait action.

   c. Configure the wait action to wait for **2** minutes.

11. Drag a third SAP Concur Adapter connection outside of the while action.

a. On the API Option page, select **Extract API**.

b. On the Operations page, select the **RetrieveFile** operation. The **RetrieveFile** operation downloads the file to a virtual file system (VFS) directory. The VFS location of the downloaded file is returned in the response of the **RetrieveFile** operation along with the file(s) name.

12. In the mapper, map **$Filelikvar** to **file-link**.

13. Drag a for-each action into the integration.

a. Name the activity (for this example, `foreach` is entered).

b. Drag the **files** element from the response of **RetrieveFile** to the **Repeating Element** field.

c. Enter a name in the **Current Element Name** field (for this example, `FileTemp` is entered).

d. Click **Create** and complete for-each action configuration.

14. Drag a stage file action inside the for-each action to read the downloaded result.

a. Provide a name, and then click **Next**.

b. Select **Read Entire File** from the list.

c. In the **Specify the File Name** field, provide the file name for the stage file action response.

d. For the **Specify the Directory to read from** field, provide a file location.
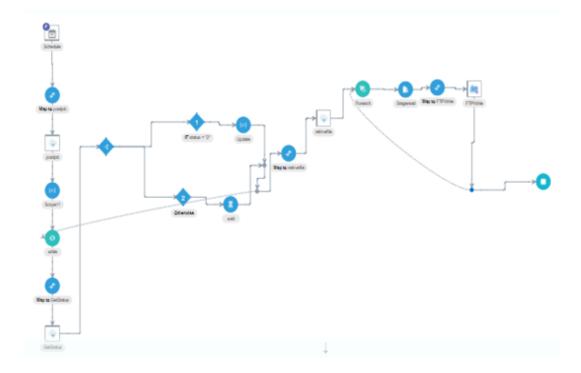
The Configure Operation page looks as follows.

You now create a schema based on the sample headers mentioned on the Summary page of the **SubmitJobRequest** operation for each extract.

e. On the Schema Options page, select **Create a new schema from a CSV file**, which maintains the response file structure.

f. On the Schema Options page, select the CSV file.

g. Check the configuration in the Summary page.

15. Drag an FTP Adapter connection below the stage file action configured to read the retrieved files.

a. On the Operations page, select the **Write File** operation.

b. On the Schema page, select to create a new schema.

c. On the Format Definition page, select a sample CSV file that maintains the response file structure (for this example, **InvoiceGLEExtract.csv** is selected). This is the same CSV file selected for the stage file action.

16. In the mapper, map the stage file action response elements to FTP Adapter request elements.

17. Add the tracking variable:

    a. In the upper-right corner, select **Tracking** from the **Actions** menu.

    b. Drag a tracking variable.

18. Save and close the integration, which looks as follows:

19. Activate the integration.

20. From the **Actions** menu at the far right for this integration, select **Submit Now**.

    You receive a run ID. You can monitor the flow using this run ID.

    The integration is deployed and the web service is ready to accept requests.

5

Troubleshoot the SAP Concur Adapter

Review the following topics to learn about troubleshooting issues with the SAP Concur Adapter.

Topics

- Troubleshoot SAP Concur Adapter Connection Issues

Additional integration troubleshooting information is provided. See Troubleshoot Oracle Integration in *Using Integrations in Oracle Integration Generation 2* and the Oracle Integration Troubleshooting page in the Oracle Help Center.

Troubleshoot SAP Concur Adapter Connection Issues

The following issues can occur when using the SAP Concur Adapter. Review the following table to identify solutions for these issues.

Issue	Solution
Why is the Payment Batch API not visible in the Adapter Endpoint Configuration Wizard?	You may have selected Professional Edition on the Connections page instead of Standard edition and provided credentials for the Standard Edition, or vice versa. Identify your SAP Concur edition and provide the correct credentials. See Identify the SAP Concur Application Edition. Also, check whether the Payment Batch API is enabled. You must enable the permissions for the Extract API and Payment Batch API for the registered application as a prerequisite to configuring the SAP Concur Adapter. See Enable the Permissions for the Extract API and Payment Batch API for the Registered Application.
Why am I unable to see the Payment Batch API after changing the edition to use Standard Edition instead of Professional Edition on the Connections page?	1. In the navigation pane, click **Integrations** > **Connections**. 2. On the Connections page, click ☰ at the far right for the respective connection, and select **Refresh Metadata**.
Why is the SubmitJobRequest operation for the Extract API not visible in the Adapter Endpoint Configuration Wizard?	You may have selected Standard Edition on the Connection page and provided credentials for the Professional Edition. Identify your SAP Concur application edition and provide the correct credentials. See Identify the SAP Concur Application Edition.
Why is the Extract API/Payment Batch API not visible in the Adapter Endpoint Configuration Wizard while configuring the SAP Concur Adapter connection for the Standard Edition?	You need to enable the Extract API/Payment Batch API in the SAP Concur application. See Enable the Permissions for the Extract API and Payment Batch API for the Registered Application.

Issue	Solution
Why does the SAP Concur Adapter show the error `Unable to configure the operations` once you select the Extract API in the SAP Concur Adapter?	You need to enable the Extract API/ Payment Batch API in the SAP Concur application. See Enable the Permissions for the Extract API and Payment Batch API for the Registered Application.