

Oracle® Cloud

Sync Work Schedules between Workday and Oracle Field Service Cloud



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Preface

This document describes how to install, configure, and run this recipe in Oracle Integration 3.

Topics:

- [Documentation Accessibility](#)
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Related Resources

For more information, see these Oracle resources:

- Oracle Integration documentation in the Oracle Cloud Library on the Oracle Help Center.
- Oracle Cloud at <http://cloud.oracle.com>.

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.
<i>italic</i>	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

About This Recipe

Use this recipe to synchronize work schedules between Workday and Oracle Field Service Cloud.



Note:

This recipe is available as **Workday — Oracle Field Service Cloud | Sync Work Schedules** in the Integration Store. Oracle provides this recipe as a sample only. The recipe is meant only for guidance, and is not warranted to be error-free. No support is provided for this recipe.

Overview

This recipe synchronizes work schedules of employees between Workday and Oracle Field Service Cloud according to a schedule specified in Oracle Integration.

To use the recipe, you must install the recipe and configure the connections and other resources within it. Subsequently, you can activate and run the integration flow of the recipe manually or specify an execution schedule for it.

When triggered, the integration flow **Oracle FTP OFS Employee2Resource Sync** fetches the Workday employee records from the sFTP to Oracle Field Service Cloud. Subsequently, the **Oracle Workday OFS Resource Work Schedule Sync** integration flow synchronizes the work schedules between Workday and Oracle Field Service Cloud.

Basic work-schedule data such as start date, end date, and calendar are synchronized between Workday and Oracle Field Service Cloud.

System and Access Requirements

- Oracle Integration, Version 21.4.3.0.0 or higher
- Workday
- An account on Workday with the Administrator role
- A secure FTP (sFTP) server or File Server
- An FTP client to access the sFTP server
- Oracle Field Service Cloud
- An account on Oracle Field Service Cloud with the Administrator role
- Employee records exported from Workday to sFTP. See [Export Workday Employees to an FTP Server](#).

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Before You Install the Recipe

You must perform the following configuration tasks on your sFTP, Workday, and Oracle Field Service Cloud instances in order to successfully connect to these external systems using Oracle Integration and synchronize work schedules.

Access Your FTP Server

Obtain a sFTP server and ensure that you have noted the following:

1. Username and password to connect to the sFTP server.
2. Host name or IP address and port number of the sFTP server.
3. Name of the file from which the Workday employee records must be fetched.
4. Path of the file from which the Workday employee records must be fetched.

Also, ensure that you have the read and write permissions on the sFTP server directory to and from which you want to transfer files.

Configure Workday

To access Workday using Oracle Integration and sync work schedules, you must perform certain configuration tasks on your Workday instance.

For general configuration tasks, see Prerequisites for Creating a Connection.

In addition, you must create a RaaS report to fetch the work schedules of employees from Workday and export it as a web service. And, before you create RaaS reports you must create calculated fields for the following items:

- Start Date
- End Date
- Work Schedule Calendar



Note:

In your Workday instance, ensure that work schedules are assigned to employees, and these schedules are updated before running the recipe. Only updated schedules are picked up for synchronization.

1. Create calculated fields.
 - a. In the quick find box, search for **Create Calculated Fields** task.
 - b. In the pop-up window, enter the **Field name**. For example: `CF_Test`. Also, select the **Business Object** as **Worker Business Process**, and **Function** as **Lookup Related Value**.

- c. Click **OK**. You are redirected to Create Calculated Field - Lookup Related Value page.
 - d. Under Calculation, select the **Lookup Field** name as **Work Schedule Assignment Event** and **Return Value** as **Start Date**.
 - Repeat the steps to create calculated fields for **End Date** and **Work Schedule Calendar – Proposed**.
2. Create a RaaS report.
 - a. Log in to the Workday instance.
 - b. In the quick find box, search for **Create custom report**.
 - c. In the Create Custom Report window:
 - i. Enter the **Report Name**. For example: RPT Business process transaction schedule.
 - ii. Select the **Report Type** as **Advanced**.
 - iii. Check the **Enable As Web Service** box.
 - iv. Uncheck the **Optimized for Performance** box.
 - v. Select the **Data Source** as **Business Process Transactions**.
 - vi. Click **OK**. You are redirected to Edit Custom Report page.
 - vii. Add the **Fields** required for the Workday employee details along with the calculated fields with the relevant **Business Object**.
 - viii. Click **OK**.
3. After creating custom reports, you can specify how the report results should be sorted.
4. In the Prompts section, check the **Populate Undefined Prompt Defaults** box.

 **Note:**

The data source **Business Process Transactions** uses built-in prompts such as **Effective Date**, **Entry Date**, and so on. Based on the report you have chosen, Workday prompts you to fill in specific reporting criteria.

Configure Oracle Field Service Cloud

Retrieve the client ID and secret from Oracle Field Service Cloud by adding an application.

To add an application:

1. Log in to an Oracle Field Service Cloud instance.
2. In the top-left corner, click the hamburger icon, then click **Configuration**.
3. On the Configuration page, under **Subsystems**, click **Applications**.
4. Click **Add Application**.
5. Enter the **Application Name** and **Application ID**, give the required API access. See [Authorize Access to APIs](#).

6. Click **Submit**.
7. Select the type of token service for the registered client application from the **Token service** drop-down list.

By default, the type of token service is **Oracle Field Service Cloud**.


8. Select the authentication settings as **Authenticate using Client ID/Client Secret**.
9. Click **Show Client ID and Client secret** to copy them for configuring the connection in Oracle Integration.
10. Click **Save**.

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Install and Configure the Recipe

On your Oracle Integration instance, install the recipe to deploy and configure the integration and associated resources.

1. On the Oracle Integration Home page, in the **Use a recipe/accelerator** section, click **View all**.
2. Find the recipe you want to install, then click **Get**.
A message confirms that the recipe was successfully installed, and the recipe card shows **In use**.

3. Click **Configure**  on the recipe to configure its resources.

The project workspace opens, displaying all the resources of the recipe. Configure the following resources before you activate and run the recipe.

Configure the Oracle FTP Connection

1. In the Connections section, click the connection name.
2. In the Properties section, enter the following details:


Field	Information to Enter
FTP Server Host Address	Enter the host address of your sFTP server. See Access Your FTP Server .
FTP Server Port	Enter 22.
SFTP Connection	Select Yes from the list.

3. In the Security section, enter the following details:

Field	Information to Enter
Security Policy	Select FTP Server Access Policy .
Username	Enter the user name to connect to your sFTP server. See Access Your FTP Server .
Password	Enter the password to connect to your sFTP server.

4. Click **Save**. If prompted, click **Save** again.
5. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.

A message confirms if your test is successful.

6. To return to the project workspace, click **Go back** .


Configure the Oracle Workday Connection

1. In the Connections section, click the connection name.
2. In the Properties section, enter the following details:

Field	Information to Enter
Host Name	Enter the Workday host name.
Tenant Name	Enter the tenant name of the account created for Oracle Integration on Workday. See Configure Workday .

3. In the Security section, enter the following details:

Field	Information to Enter
Security Policy	Select Workday Username Token Policy .
Workday Integration User	Enter the user name of the account created for Oracle Integration on Workday. See Configure Workday .
Password	Enter the password of the account created for Oracle Integration on Workday.

4. Click **Save**. If prompted, click **Save** again.
5. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.
A message confirms if your test is successful.
6. To return to the project workspace, click **Go back** .

Configure the Oracle Field Service Cloud Connection


1. In the Connections section, click the connection name.
2. In the Properties section, enter the following details:

Field	Information to Enter
Field Service Cloud API URL	Enter the URL of your Oracle Field Service Cloud Instance. See Configure Oracle Field Service Cloud .
Instance ID	Enter the ID of your Oracle Field Service Cloud instance. For example, <code>ofsc-xyz.test</code> .

3. In the Security section, enter the following details:


Field	Information to Enter
Security Policy	Select Client Credentials .

Field	Information to Enter
Client Id	Enter the client ID obtained from your Oracle Field Service Cloud instance. See Configure Oracle Field Service Cloud .
Client Secret	Enter the client secret obtained from your Oracle Field Service Cloud instance.

4. Click **Save**. If prompted, click **Save** again.
5. Click **Test** to ensure that your connection is successfully configured. In the resulting dialog, click **Test** again.
A message confirms if your test is successful.
6. To return to the project workspace, click **Go back** .

Configure the Lookup Tables

The recipe contains the following four lookup tables with default mappings. Edit them as necessary.

- **Oracle_FTP_OFS_WorkerStatus**: Used to map **Workday Employee Status** with **OFSC Resource Status**.
 - **Oracle_FTP_OFS_WorkerType**: Used to map **FTP Worker Type** with **OFSC Resource Type**.
 - **Oracle_Workday_OFS_RecordType**: Used to map **Workday Calendar** with **OFSC Schedule Label**.
 - **Oracle_Workday_OFS_WorkSchedule**: Used to map **Workday Schedule** with **OFSC Schedule**.
1. In the Lookups section, click the lookup name.
 2. Edit the lookup keys in the lookup table.
 3. Click **Save**. If prompted, click **Save** again.
 4. To return to the project workspace, click **Go back** .

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Activate and Run the Recipe

After you've configured the connections and other resources, you can activate and run the recipe.

1. In the project workspace, click **Activate**. In the Activate project panel, with the default project deployment selected, choose an appropriate tracing option, then click **Activate**.

A message confirms that the integration has been activated. Refresh the page to view the updated status of the integration.

2. Update property values for integration flows.
 - a. For the **Oracle FTP OFS Employee Resource Sync** flow, update the following properties:

Integration Property	Description
Default Employee Status	Specify the default value of Workday employee status.
EmailTo	Specify the email address to which run-time exception emails are sent. Enter an email address of your choice.
DefaultResourceType	Specify the default value of resource type.
RetryCount	Specify the number of possible retries if any record fails while creating resources at run time.

- b. For the **Oracle Workday OFS Resource Work Schedule Sync** flow, update the following property:

EmailTo: Specify the email address to which run-time exception emails are sent. Enter an email address of your choice.

For the procedure to update integration properties, see Steps 7 to 9 in *Override Design-Time Properties in an Integration*.

3. Run the integration **Oracle FTP OFS Employee2Resource Sync** to fetch the resources from FTP to Oracle Field Service Cloud.
 - a. In the Integrations section of the project workspace, click **Actions** **...** on the integration flow, then select **Run**.

The Configure and run page is displayed with the following parameters. Update the parameters with appropriate values.

- **schedule_paramErrorFilePath:** Specify the FTP error file path in which the error records are stored after unsuccessful execution.
- **schedule_param_ErrorFileName:** Specify the name of the FTP error file in which the error records is stored after unsuccessful execution.
- **schedule_param_FileName:** Specify the name for the FTP file from which the Workday employee records must be fetched.
- **schedule_param_FilePath:** Specify the path of the FTP file from which the Workday employee records must be fetched.

- **schedule_param_NextRun**: Stores the date and time of the most-recent successful run of the integration flow. The parameter's value is automatically updated after each successful run, and only the Workday employee records created after the date-time stamp stored as the parameter's **Current Value** are processed by the integration in each run. If you want to change the date-time stamp for a specific scenario, enter the date and time of your choice in the **New Value** field in the format, yyyy-MM-dd HH:mm.
- b. On the Configure and run page, click **Run**.
- You've now successfully submitted the integration for execution.


 **Note:**

You can also schedule this integration to run at a date, time, and frequency of your choosing. See Define the Integration Schedule.

4. Monitor the running of the integration flow in Oracle Integration.
 - a. In the project workspace, click **Observe**. You'll see the integration flow being triggered and running successfully.
 - b. To manage errors in your project, see Manage Errors in a Project.
5. Log in to your Oracle Field Service Cloud instance and check for the new resources created.
 - a. Log in to the Oracle Field Service Cloud instance.
 - b. In the top-left corner, click the hamburger icon, then click **Resources**.
 - c. In the search box, enter the ID of the Workday employee you want to search for.

 **Note:**

The Workday employee ID is the `sourceSystemId` in FTP.

- d. Check if the new resource is created.
6. Run the integration **Oracle Workday OFS Resource Work Schedule Sync** to synchronize the work schedules with Oracle Field Service Cloud.
 - a. In the Integrations section of the project workspace, click **Actions**  on the integration flow, then select **Run**.

The Configure and run page is displayed with the following parameter. Update the parameter with appropriate value.

- **schedule_para_LastRunTime**: Stores the date and time of the most-recent successful run of the integration flow. The parameter's value is automatically updated after each successful run, and only the Workday schedules created after the date-time stamp stored as the parameter's **Current Value** are processed by the integration in each run. If you want to change the date-time stamp for a specific scenario, enter the date and time of your choice in the **New Value** field in the format, yyyy-MM-dd HH:mm.

A

Update the Report Owner ID




If the RaaS report owner is changed in Workday, you must configure the Workday adapter in Oracle Integration with the updated report-owner ID.



Note:

Before updating the RaaS Report Owner ID, ensure that you deactivate the **Oracle Workday OFS Resource Work Schedule Sync** integration.

To update the RaaS report owner ID:

1. In the Integrations section of the project workspace, click **Actions**  on the **Oracle Workday OFS Resource Work Schedule Sync** integration, then select **Edit** .
2. On the integration canvas, select **ExportWorkSchedule**, and then click **Edit** . The Adapter Endpoint Configuration wizard appears.
3. Click **Next** until you reach RaaS Services page.
4. In the RaaS Services page, verify if the new report-owned ID has been automatically updated.
5. Click **Done**.