

# Oracle® Cloud

## Export Employee Records from Workday to Azure AD



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Oracle Cloud Export Employee Records from Workday to Azure AD,  
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# Preface

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

**Topics:**

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## Related Resources

For more information, see these Oracle resources:

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

## Conventions

The following text conventions are used in this document.

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	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 export employee records from Workday to Azure Active Directory (Azure AD).



### Note:

This recipe is available as **Workday — Azure AD | Export Employee Records** in Oracle Integration. 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 exports employee records from Workday to Azure AD on a scheduled basis. It creates user records in Azure AD according to the employee data received from Workday.

To use the recipe, you must install the recipe and configure the connections and other resources within the recipe. 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 reads the employee records from the Workday instance and exports them to Azure AD.

While running the recipe, you can configure the integration flow to read Workday employee records created after a specified time, thereby picking up only the new or required employee records in each run. Basic data such as name, ID, date of birth, email, and so on are synchronized between Workday and Azure AD.

## System and Access Requirements

- Oracle Integration, Version 21.4.3.0.0 or higher
- Workday
- An account on Workday with the Administrator role
- Azure AD
- An account on Azure AD with the Administrator role

# 2

## Before You Install the Recipe

You must perform the following configuration tasks on your Workday and Azure AD instances to successfully connect to these external systems using Oracle Integration and export employee records.

### Configure Workday

To access Workday using Oracle Integration and export employee records, 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 an Enterprise Interface Builder (EIB) report to export Workday data in bulk. And, before you create an EIB report, you must create a custom report with custom fields, calculated fields, and business objects.

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_Most Recent Hire Event - Date and Time Completed`. Also, select the **Business Object** as **Worker**, and **Function** as **Lookup Related Value**.
  - c. Click **OK**. You are redirected to Create Calculated Field - Lookup Related Value page.
  - d. In the **Condition** column, create the following calculated fields:

Calculated Field	Details
<b>CF_Most Recent Hire Event - Date and Time Completed</b>	<b>Business Object:</b> Worker <b>Lookup Field:</b> CF_Most Recent Hire Event (CW or EE) <b>Related Business Object:</b> Staffing Event <b>Return Value:</b> Date and Time Completed <b>Function:</b> Lookup Related Value
<b>CF_Most Recent Hire Event (CW or EE)</b>	<b>Business Object:</b> Worker <b>Source Field:</b> Staffing History - Approved <b>Related Business Object:</b> Staffing Event <b>Condition:</b> Is Hire Transaction <b>Sort Field:</b> Effective Date <b>Sort Direction:</b> Descending (Z to A) <b>Instance to be Returned:</b> First occurrence <b>Function:</b> Lookup Related Value

Configuration details for other related calculated fields are listed below.

Calculated Field	Details
CF_Hire Event	<b>Business Object:</b> Action Event <b>Lookup Field:</b> Worker <b>Related Business Object:</b> Worker <b>Return Value:</b> CF_Most Recent Hire Event (CW or EE) <b>Function:</b> Lookup Related Value
CF_Hire Event	<b>Business Object:</b> Worker <b>Lookup Field:</b> Worker <b>Related Business Object:</b> Worker <b>Return Value:</b> CF_Most Recent Hire Event (CW or EE) <b>Function:</b> Lookup Related Value

2. Create a custom 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\_INT\_SOA\_Test\_11.
    - ii. Select the **Report Type** as **Advanced**.
    - iii. Select the **Enable As Web Service** check box.
    - iv. Deselect the **Optimized for Performance** check box.
    - v. Select the **Data Source** as **All Workers**.
    - vi. Click **OK**. You are redirected to Edit Custom Report page.
    - vii. Under the **Columns** tab, add the **Fields** and **Custom Fields** required for the Workday employee details along with the calculated fields with the relevant **Business Object**.

Business Object	Field	Column Heading Override	Column Heading Override XML Alias
Worker	First Name	First Name	First_Name
Worker	Last Name		lastName
Worker	Email - Work	Emails	Email_-_Work
Worker	Employee ID		Employee_ID
Worker	Worker Status		Worker_Status
Worker	Date of Birth		dateOfBirth
Worker	Supervisory Organization		Department
Worker	Work Address - City	Primary Address - City	Primary_Address
Worker	Work Address - Country	Primary Address - Country Name	Phone_Work
Worker	Work Address - Formatted Line 1	Primary Address - Formatted Line 1	Company_-_Name



Business Object	Field	Column Heading Override	Column Heading Override XML Alias
Worker	Work Address - Formatted Line 2	Primary Address - Formatted Line 2	Primary_Address_-_Formatted_Line_2
Worker	Phone - Primary Work	Phone - Primary Work	primaryWorkPhone
Worker	Business Title		Business_Title

- d. Click **OK**.
- e. After creating custom reports, you can specify how the report results should be sorted.
- f. Under the **Sort** tab, add the **Fields** and **Sort Direction** required for the Workday employee details along with the calculated fields with the relevant **Business Object**.

Field	Sort Direction
<b>CF_Most Recent Hire Event - Date and Time Completed</b>	Alphabetical - Ascending

- g. Under the **Filter** tab, add the **Fields** and **Custom Fields** required for the Workday employee details along with the calculated fields with the relevant **Business Object**.

And/Or	(	Field	Operator	Comparison Type	Comparison Value	)	Indexed
And		Last Name	is not blank				
And		Email - Work	is not empty				
And		Hire Date	greater than or equal to	Prompt the user for the value	Starting Prompt		
And		Hire Date	less than or equal to	Prompt the user for the value	Ending Prompt		

- h. In the Prompts section, select the **Populate Undefined Prompt Defaults** check box.

 **Note:**

The data source **All Workers** uses built-in prompts such as **Start Date**, **End Date**, and so on. Based on the report you have chosen, Workday prompts you to fill in specific reporting criteria.

3. Create an EIB report.
  - a. Log in to the Workday instance.
  - b. In the quick find box, search for **Create EIB** task.
  - c. Enter the **Name** of the EIB task (RPT\_INT\_SOA\_Test\_11).

- d. In the Create EIB pop-up, choose **Outbound** and click **OK**.
- e. In the General Settings, enter comments and then click **Next**.
- f. Under the **Get Data** tab, select the **Data Source Type** as **Custom Report**.
- g. Select the **Custom Report** as **RPT\_INT\_SOA\_Test\_11** and then click **Next**.
- h. Under the **Transform** tab, select the **Transformation Type** as **New Custom Report Transformation**, then click **Next**.
- i. Under the **Deliver** tab, perform the following steps.
  - i. Select the **Delivery Method** as **Workday Attachment**.
  - ii. Enter the **File Name** with the relevant file extension. For example, `output.csv`.
  - iii. Specify the **Document Retention Policy (in Days)** as **should be less than 180**, and then click **Next**.
  - iv. In the Details section, select the **MIME Type** as **CSV**.
  - v. Click **Next**.
- j. Under the **Review and Submit** tab, verify the details, then click **OK**.
- k. Once you create the EIB report, the View Integration System window appears. In the top-left corner, click the ellipsis next to the EIB task name, choose **Enterprise Interface**, and then select **Configure Transformation**.
- l. In the Configure Transformation window, update the report transformation details, click **OK**, and then click **Done**.
- m. In the View Integration System window, in the top-left corner, click the ellipsis next to the EIB task name, choose **Integration**, and then select **Launch/Schedule**.
- n. In the Launch/Schedule Integration pop-up, select the **Run Frequency** as **Run Now**, and then click **OK**.
- o. In the Schedule an Integration window, specify the **Start Date** and **Hire Date**, and then click **OK**.

The EIB report gets generated.

## Configure Azure AD

To configure Azure AD, see Prerequisites for Creating a Connection.

# 3


## 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 Workday Connection

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


Field	Information to Enter
<b>Host Name</b>	Enter the Workday host name. For example: <code>https://wd2-impl-services1.workday.com</code> .
<b>Tenant Name</b>	Enter the tenant name of the account created for Oracle Integration on Workday. See Prerequisites for Creating a Connection.

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

Field	Information to Enter
<b>Security Policy</b>	Select <b>Workday Username Token Policy</b> .
<b>Workday Integration User</b>	Enter the username of the account created for Oracle Integration on Workday. See Prerequisites for Creating a Connection.
<b>Password</b>	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 Azure AD Connection

1. In the Connections section, click the connection name.
2. In the Properties section, enter the tenant ID in the **Tenant ID** field.
3. In the Security section, enter the following details:

Field	Information to Enter
<b>Security Policy</b>	Select <b>Client Credentials</b> .
<b>Client ID</b>	Enter the client ID. See <a href="#">Configure Azure AD</a> .
<b>Client Secret</b>	Enter the client password.

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 lookup tables. Edit them as necessary.

- **ORACLE-BRT\_LOOP\_LOOKUP**: Use this lookup to configure the loop count.


Property	Description	Value
MaxLoopCount	Specify the value less than or equal 10	For example: 10

- **ORACLE-BRT\_AZURE\_AD\_LOOKUP**: Use this lookup to configure user account enabling, the domain associated with the user principal name (UPN) used for identification, and password.

Property	Description	Value
AccountEnabled	Specify the value as either True or False.	true
UserPrincipalNameDomain	Stores the User Principal name domain.	@abc.xyz.com
PasswordSignIn	Specify the value as either True or False.	true

- **ORACLE-BRT\_WORKDAY\_LOOKUP**: Use this lookup to configure Integration System Reference ID and Type.

Property	Description	Value
IntegrationSystemID	Specify the Integration System Reference ID.	INT_SOA_Test_11_CSV
IntegrationSystemType	Specify the Integration System Reference Type.	Integration_System_ID

1. In the Lookups section, click the lookup name.
2. In the **Value** column, enter or map the appropriate values for the properties.
3. Click **Save**. If prompted, click **Save** again.
4. To return to the project workspace, click **Go back** .

# 4

## 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 the **Oracle Workday Azure AD UserSync** integration flow. You can update the integration properties only after activating this flow.

Integration Property	Description
EmailTo	Specify the email address to which run-time exception emails are sent. Enter an email address of your choice.
RetryCount	Number of retries when an invoke fails.
WaitForAzureADRetry	Time in seconds for retrying user creation in Azure AD.
WaitForEIB	The wait time in seconds specified for an EIB report to be retrieved.

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

3. Run the integration **Oracle Workday Azure AD UserSync** to create users in Azure AD according to the employee data received from Workday.

- 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 **endDate** and **startDate** parameters. Specify a current value for **endDate** and **startDate** in the format yyyy-mm-dd. This will enable the retrieval of details for employees who were hired within that specified date range.

- b. On the Configure and run page, click **Run**.

You've now successfully submitted the integration for execution. The recipe now creates users in Azure AD corresponding to the employee data exported from Workday.

 **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 Azure AD and check if users are created for employee records exported from Workday.

View the employee records.

- a.** In the **Filter** box, search for **Users**.

- b.** Under **Users**, select **All Users**.

The list of users created is displayed.

#### **Related Documentation**

- *Using the Workday Adapter with Oracle Integration 3*
- *Using the Azure Active Directory Adapter with Oracle Integration 3*