Oracle® Construction and Engineering

Using the Oracle Primavera Cloud Data Service Adapter with Oracle Integration 3

F94505-02
February 2025

ORACLE®

Oracle Construction and Engineering Using the Oracle Primavera Cloud Data Service Adapter with Oracle Integration 3,

F94505-02

Contents

Preface

1   Understand the Oracle Primavera Cloud Data Service Adapter

2   Create an Oracle Primavera Cloud Data Service Adapter Connection

3   Add the Oracle Primavera Cloud Data Service Adapter Connection to an Integration

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 `https://www.oracle.com/corporate/accessibility/`.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit `https://support.oracle.com/portal/` or visit `Oracle Accessibility Learning and Support` 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 at `http://cloud.oracle.com`
- *Using Integrations in Oracle Integration 3*
- *Using the Oracle Mapper with Oracle Integration 3*
- Oracle Integration documentation
- Oracle Primavera Cloud documentation
- Oracle Primavera P6 EPPM documentation

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 Oracle Primavera Cloud Data Service Adapter

Review the following topics to learn about the Oracle Primavera Cloud Data Service 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:

Oracle Primavera Cloud Data Service Adapter Capabilities

The Oracle Primavera Cloud Data Service Adapter enables you to create a connection in Oracle Integration to either Oracle Primavera Cloud Data Service or Primavera Data Service. You can then add this connection to an integration, for the purpose of extracting project scheduling information from the connected applications.

The Oracle Primavera Cloud Data Service Adapter is one of many predefined adapters included with Oracle Integration. You can configure the Oracle Primavera Cloud Data Service Adapter as an invoke connection in an integration in Oracle Integration.

The Oracle Primavera Cloud Data Service Adapter provides the following capabilities and benefits:

- Provides a way to extract data from Primavera scheduling solutions through Oracle Integration.

- Supports connections to Oracle Primavera Cloud Data Service and Primavera Data Service.

- Enables a connection to be set up between Oracle Primavera Cloud Data Service or Primavera Data Service and other Oracle or third-party applications or endpoints.

- Provides a quick and easy way to construct SQL-like queries to select data from one or more tables.

- Helps to build efficient, flexible, and resilient integration solutions with Primavera cloud applications.

- Eliminates the need to use the generic technology adapter.

- Provides the ability to read the following data from Oracle Primavera Cloud or Oracle Primavera P6 EPPM in a single call:

  – Global Data: Calendars, CBS, Currencies, Documents, EPS, Locations, Rates, Resources, Roles, Workspaces

- – Project Data: Activities, Assignments, Baselines, Costs, Expenses, Portfolios, Projects, Risks, Scenarios, WBS
- – Notebook Topics
- – Configured fields/UDFs
- – Codes

Oracle Primavera Cloud Data Service Adapter Restrictions

Note the following Oracle Primavera Cloud Data Service Adapter restrictions.

- The Oracle Primavera Cloud Data Service Adapter only supports reading and extracting data from Oracle Primavera Cloud or Oracle Primavera P6 EPPM. It does not support creating, updating, or deleting data in Oracle Primavera Cloud or Oracle Primavera P6 EPPM.
- You can only select up to two tables within each invoke that you configure. You can either select just one table (the primary table), or you can select a primary table and join it with an optional secondary table.

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

Oracle Primavera Cloud Data Service Adapter Use Cases

The ability of the Oracle Primavera Cloud Data Service Adapter to extract project scheduling information using SQL-like expressions is a very natural fit for integrations with reporting and business intelligence applications. It can also be leveraged for pushing updates from a project schedule into third party applications, like ERP.

What Application Version Is Supported?

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

Workflow to Create and Add an Oracle Primavera Cloud Data Service 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.

This table lists the workflow steps for both adapter tasks and overall integration tasks, and provides links to instructions for each step.

Step	Description	More Information
1	Access Oracle Integration.	Go to `https://instance_URL/ic/home`

Step	Description	More Information
2	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 an Oracle Primavera Cloud Data Service Adapter Connection
3	Create the integration. When you do this, you add trigger (source) and invoke (target) connections to the integration.	Create Integrations in *Using Integrations in Oracle Integration 3* and Add the Oracle Primavera Cloud Data Service Adapter Connection to an Integration
4	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data in *Using Integrations in Oracle Integration 3*
5	(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 3*
6	Activate the integration.	Activate an Integration in *Using Integrations in Oracle Integration 3*
7	Monitor the integration on the dashboard.	Monitor Integrations During Runtime in *Using Integrations in Oracle Integration 3*
8	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Track Integration Instances in *Using Integrations in Oracle Integration 3*
9	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in *Using Integrations in Oracle Integration 3*

> **✎ Note:**
>
> Visit My Oracle Support (MOS) if you have a technical issue and/or if you have a question about the Oracle Primavera Cloud Data Service Adapter that you cannot resolve using information on the Manage Errors page.

2

Create an Oracle Primavera Cloud Data Service 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

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the Oracle Primavera Cloud Data Service Adapter:

If using this adapter with Oracle Primavera Cloud:

- **Subscribe to Primavera Cloud**: Purchase a subscription to Primavera Cloud. When you subscribe, you receive the Primavera Cloud instance URL for your region and administrator credentials.

- **Set up an Integration User Account**: An integration user account is a generic user account that is used to manage integrations between Primavera Cloud and other applications. Creating an integration user account is optional but recommended to avoid issues related to using a standard user account, such as account lockouts or the employee leaving the organization. For more information, see Setting up an Integration User Account in the *Oracle Primavera Cloud Application Administration Guide*.

- **File a Service Request for Prime Information**: You need to file a Service Request in My Oracle Support to get the following Oracle Primavera Cloud details (you will be prompted to enter this information when creating your connection):

  – Prime Region

  – Prime Tenant

  – Prime Tenant Code

  – Prime Identity App

If using this adapter with Oracle Primavera P6 EPPM:

- **Subscribe to Primavera P6 EPPM**: Purchase a subscription to Primavera P6 EPPM. When you subscribe, you receive the Primavera P6 EPPM instance URL for your region and administrator credentials.

- **Create a user account in Primavera P6 EPPM**: To connect with Primavera P6 EPPM, you must create a user account in Primavera P6 EPPM. See Creating User Accounts for P6 EPPM in the *Oracle Primavera P6 EPPM Application Administration Guide* to learn how to create a user account.

- **Set up an Integration User Account with OAuth Authentication Type**: An integration user account is a generic user account used to manage integrations between Primavera P6 EPPM and other applications. Creating an integration user account is optional but recommended to avoid issues related to using a standard user account, such as account lockouts or the employee leaving the organization. For more information, see Creating User Accounts for P6 EPPM in the *Oracle Primavera P6 EPPM Application Administration Guide*.

Create a Connection

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

> **Note:**
>
> You can also create a connection in the integration canvas. See why working with projects is preferred.

To create a connection in Oracle Integration:

1. Decide where to start:

   - Work in a project (see why working with projects is preferred).

     a. In the navigation pane, click **Projects**.

     b. Select the project name.

     c. Click **Integrations** .

     d. In the **Connections** section, click **Add** if no connections currently exist or **+** if connections already exist. The Create connection panel opens.

   - Work outside a project.

     a. In the navigation pane, click **Design**, then **Connections**.

     b. Click **Create**. The Create connection panel opens.

2. 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.

3. Enter the information that describes this connection.

Element	Description
Name	Enter a meaningful name to help others find your connection when they begin to create their own integrations.
Identifier	Automatically displays the name in capital letters that you entered in the **Name** field. If you modify the identifier name, don't include blank spaces (for example, `SALES OPPORTUNITY`).

Element	Description
Role	Select the role (direction) in which to use this connection.
	Note: *Only* the roles supported by the adapter you selected are displayed for selection. Some adapters support all role combinations (trigger, invoke, or trigger and invoke). Other adapters support fewer role combinations.
	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, assume 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.
Keywords	Enter optional keywords (tags). You can search on the connection keywords on the Connections page.
Description	Enter an optional description of the connection.
Share with other projects	**Note**: This field only appears if you are creating a connection in a project.
	Select to make this connection publicly available in other projects. Connection sharing eliminates the need to create and maintain separate connections in different projects.
	When you configure an adapter connection in a different project, the **Use a shared connection** field is displayed at the top of the Connections page. If the connection you are configuring matches the same type and role as the publicly available connection, you can select that connection to reference (inherit) its resources.
	See Add and Share a Connection Across a Project.

4. Click **Create**.

   Your connection is created. You're now ready to configure the connection properties, security policies, and (for some connections) access type.

5. Follow the steps to configure a connection.
   The connection property and connection security values are specific to each adapter. Your connection may also require configuration with an access type such as a private endpoint or an agent group.

6. Test the connection.

Configure Connection Properties

Enter connection information so your application can process requests.

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

2. In the **Host Name** field, enter the host name of the application the data service will be querying.

   - Example host name for Oracle Primavera Cloud:

     ```
     primavera.oraclecloud.com
     ```

   - Example host name for Oracle Primavera P6 EPPM:

     ```
     p6.oraclecloud.com/iadgaops
     ```

3. In the **Primavera Data Service Type** field, select which data service this connection will use.

   - For Oracle Primavera Cloud Data Service, select **Primavera Cloud PDS**

   - For Primavera Data Service, select **P6 PDS**

4. (For Oracle Primavera Cloud Data Service connections only) Enter the appropriate values for these Oracle Primavera Cloud fields:

   - Prime Region

   - Prime Tenant

   - Prime Tenant Code

   - Prime Identity App

   > **Note:**
   >
   > To get this information, you need to file a Service Request in My Oracle Support, as mentioned in Prerequisites for Creating a Connection.

Configure Connection Security

Configure security for your connection.

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

2. In the **Security policy** field, select the authentication type used by the application that the data service will be querying.

   - For Oracle Primavera Cloud, select **Primavera Cloud OAuth 2.0**.

   - For Oracle Primavera P6 EPPM, select **P6 Basic Authentication**.

3. In the **User Name** field, enter the user name of your Oracle Primavera Cloud or Oracle Primavera P6 EPPM user account.

4. In the **Password** field, enter the password of your Oracle Primavera Cloud or Oracle Primavera P6 EPPM user account.

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 adapter connection uses a Web Services Description Language (WSDL) file. Only some adapter connections use WSDLs.

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 and verify URLs and credentials. Continue to test until the connection is successful.

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

3

Add the Oracle Primavera Cloud Data Service Adapter Connection to an Integration

When you select and place the Oracle Primavera Cloud Data Service Adapter into the invoke area of an integration, the Adapter Endpoint Configuration Wizard opens. This wizard guides you through configuration of the Oracle Primavera Cloud Data Service Adapter endpoint properties.

The following wizard pages guide you through the configuration of the Oracle Primavera Cloud Data Service Adapter as an invoke in an integration.

Topics:

- Basic Info Page
- Invoke Configuration 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, `OPC Data Service Adapter Connection to OPC Data Service`) • 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 extracts project scheduling data from Primavera Cloud.`

Invoke Configuration Page

Select the tables and columns in Oracle Primavera Cloud or Oracle Primavera P6 EPPM that you want to query and fetch data from.

Element	Description
Primavera Data Service application type	This field is automatically set based on the selected data service type.
	If the data service type is Oracle Primavera Cloud Data Service, the application type is set to **Primavera Cloud**.
	If the data service type is Primavera Data Service, the application type is set to **P6**.
Select primary table	Select the primary table in Oracle Primavera Cloud or Oracle Primavera P6 EPPM that you want to fetch data from.
Select join table	(Optional) Select the secondary table in Oracle Primavera Cloud or Oracle Primavera P6 EPPM that you want to join to the primary table. When a join table is used, it acts as a filter on the primary table to narrow down the results. For example, if you want to fetch the activities that belong to a particular project, the activities table would be the primary table, and the project table would be the join (secondary) table.
Select Columns	The **Available Options** field shows the columns that are available in the selected primary table and join table. Select the table columns you want to fetch data from and use the **Move to select** button to move them to the **Selected Options** field, or use the **Move all to selected** button to move all the available table columns to the **Selected Options** field.
Provide query condition	Enter the condition you want to apply to the query.
	For example:
	`ACTIVITY.PROJECTOBJECTID=500,PROJECT.OBJECTID=500,`
Provide join table details (for Oracle Primavera P6 EPPM only)	If using a join table, enter the condition you want to apply to the join table query.
	For example:
	`ACTIVITY.PROJECTOBJECTID=PROJECT.OBJECTID,`

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 **Go back**.
	To cancel your configuration details, click **Cancel**.