Oracle
Primavera
Gateway Data Migration Guide

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Contents

Overview

Primavera Gateway is a middleware application that facilitates data migration between Primavera applications. You can migrate data from P6 to:

- Primavera Cloud or
- another P6 environment

For a quick synopsis, watch the ***Overview of Primavera Gateway video*** (***https://players.brightcove.net/2985902027001/SyXjZnYeeb_default/index.html?videoId=6174404031001***).

You can use this process to:

- migrate data from P6 on-premises to P6 cloud
- migrate data from P6 to Primavera Cloud, and vice-versa
- migrate P6 data from a testing environment to a production environment

> **Note**: As an alternative to migrating data, you can also *selectively* transfer P6 data using the **Master Data** or **Project Data** business flows. For more details see the *Connecting Distinct P6 EPPM Applications Guide, or* the *Primavera Cloud, and P6 EPPM Business Flow Designer Guide*.

The *Data Migration Guide* describes how to migrate data between applications using Primavera Gateway.

Within our documentation, some content might be specific for cloud deployments while other content is relevant for on-premises deployments. Any content that applies to only one of these deployments is labeled accordingly.

Gateway developers and administrators should use this guide.

In This Section

How to use this Guide

To successfully migrate P6 data, complete the task sequence outlined in the ***Roadmap for Migrating Data*** (on page 7).

Roadmap for Migrating Data

To migrate P6 data to Primavera Cloud or another P6 environment:

1) Set up the native applications for data migration.

   For more details, see the section, ***Setting Up Applications for Data Migration*** (on page 9).

2) Configure Gateway application settings which is the intermediary application you will use to migrate data.

   For more details, see ***Configuring Primavera Gateway*** (on page 19).

3) In Gateway, setup a migration data business flow to transfer data.

   For more details, see ***Adding a Migration Data Business Flow*** (on page 27).

> **Note**: As an alternative to migrating data, you can also *selectively* transfer P6 data using the **Master Data** or **Project Data** business flows. For more details on how to accomplish this, see any of the *Setup Guides* in the Gateway documentation library. If you want to selectively transfer P6 data to another P6 environment, then see the *Connecting Distinct P6 EPPM Applications Guide.*

4) Add a synchronization which uses the **Migration Data** business flow created above to migrate the data.

   For more details, see ***Adding Synchronizations*** (on page 33).

5) Monitor the synchronization to check the status of the migration.

   For more details, see the chapter, Monitoring Synchronizations.

Setting Up Applications for Data Migration

To set up your applications for data migration process, see the following sections of the guide:

For Cloud

See ***Setting Up Cloud Services for Data Migration*** (on page 9)

For On-Premises

See ***Setting Up On-Premises Applications for Data Migration*** (on page 10)

In This Section

Setting Up Cloud Services for Data Migration

If your organization uses cloud services, you can migrate data to any of the following applications.

P6 to P6 Data Migration

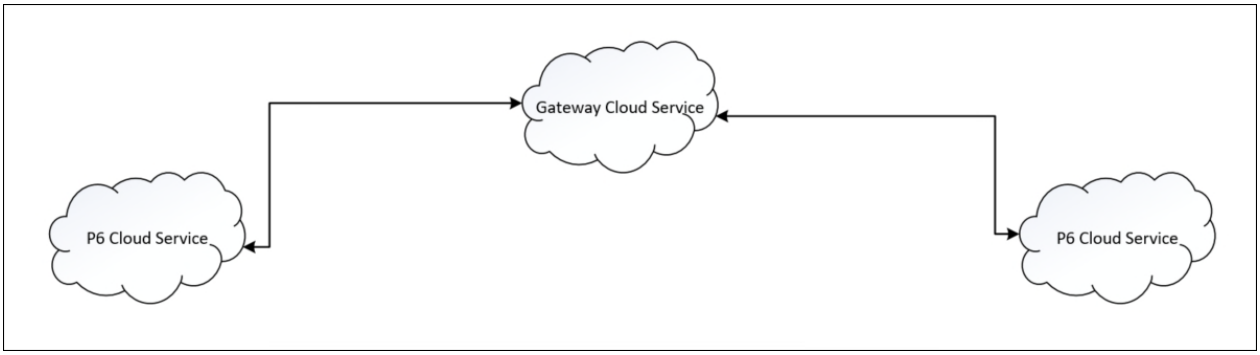
Contact Oracle Support with your service request for a ***Service Request for P6 to P6 Data Migration Setup*** (on page 9).

P6 to Primavera Cloud Data Migration

Contact Oracle Support with your service request for a ***Service Request for P6 to Primavera Cloud Data Migration Setup*** (on page 10).

Service Request for P6 to P6 Data Migration Setup

In this scenario, data is migrated between two distinct P6 cloud services using Gateway cloud service.



For this setup, contact Oracle Support and specify the following in your service request:

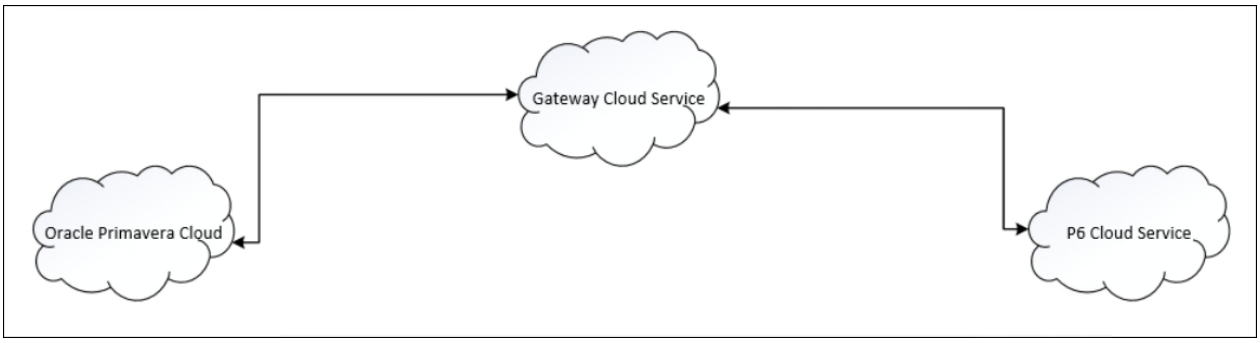
- Setup two P6 EPPM provider deployments in Gateway cloud service
- Install P6 Web Services in the source and destination P6 deployments respectively

> **Note**: P6 Web Services supports SAML 2.0 authentication. If you choose to use SAML 2.0 authentication between the P6 provider in Gateway and P6 EPPM, then SAML authentication must be enabled in P6 EPPM and Primavera Gateway applications. The server administrator must download the SAML token XML file on the Gateway server machine where the P6 deployment is to be created.

When you receive access to Primavera Gateway, customize your Gateway application by ***Configuring Primavera Gateway*** (on page 19).

Service Request for P6 to Primavera Cloud Data Migration Setup

In this scenario, data is migrated between P6 cloud and Primavera Cloud using Primavera Gateway cloud service.



For this setup, contact Oracle support and specify the following in your service request:

- Setup P6 cloud and Primavera Cloud services
- Setup Gateway cloud service with P6 deployment and Primavera Cloud deployments
- Install P6 Web Services for P6 deployment

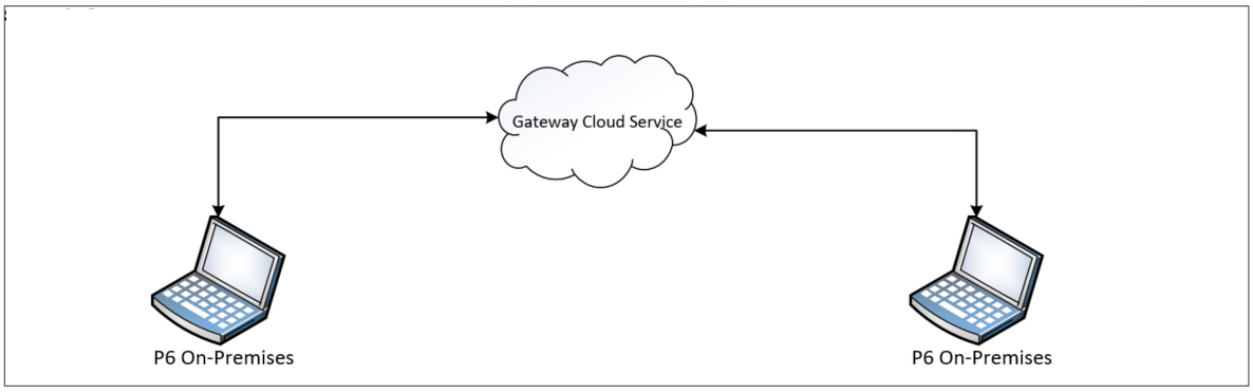
When you receive access to Primavera Gateway, customize your Gateway application by ***Configuring Primavera Gateway*** (on page 19).

Setting Up On-Premises Applications for Data Migration

If your organization uses an on-premises application, you can migrate data to the following cloud services using Gateway cloud service.

P6 On-Premises to P6 Cloud Data Migration

In this scenario, data is migrated between two distinct P6 on-premises applications using Gateway cloud service.



For this setup contact Oracle Support and request Gateway cloud service setup.

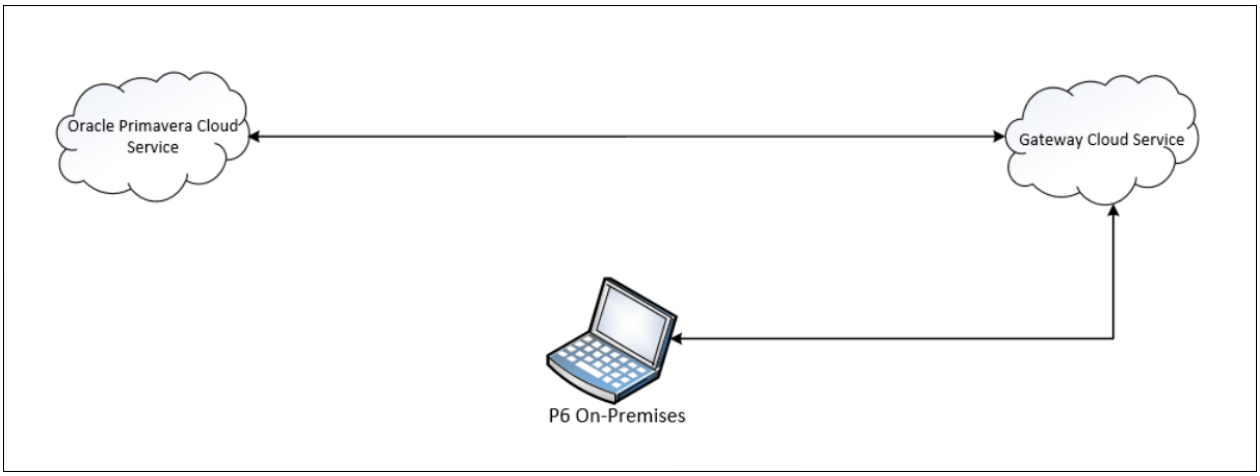
Onsite:

- Install two distinct P6 on-premises applications
  For detailed installation instructions, see the *P6 EPPM Installation and Configuration Guide*.
- Install P6 Web Services for P6 deployments.
- Configure your *on-premises* P6 application by
  - ***Enabling Encryption Between Gateway and P6 Web Services for On-Premises*** (on page 13)
  - ***Configuring Gateway for P6 Event Notification for On-Premises*** (on page 14)

After receiving access to Gateway cloud service, create a P6 deployment in Gateway for each on-premises environment. For more details, see ***Adding or Editing a P6 Deployment Connection*** (on page 22).

P6 On-Premises to Primavera Cloud Data Migration

In this scenario, data is migrated between P6 on-premises application and Primavera Cloud service using Primavera Gateway cloud service.



For this setup, contact Oracle Support with a service request for setting up:

- Primavera Cloud service
- Gateway cloud service configured with a Primavera Cloud provider deployment

Onsite:

- Install P6 on-premises

  For detailed installation instructions, see the *P6 EPPM Installation and Configuration Guide*.
- Install P6 Web Services for P6 deployment
- Configure your *on-premises* P6 application to send and receive data using Gateway cloud service by
  - ***Enabling Encryption Between Gateway and P6 Web Services for On-Premises*** (on page 13)
  - ***Configuring Gateway for P6 Event Notification for On-Premises*** (on page 14)

After receiving access to Gateway cloud service, create a P6 deployment in Gateway corresponding to your P6 on-premises environment. For more details on how to edit a deployment, see ***Adding or Editing a P6 Deployment Connection*** (on page 22).

On-Premises Only Procedures

When you plan to connect a P6 on-premises application using Gateway cloud service, then additionally complete the following tasks:

- Set up P6 Web Services

> **Note**: P6 Web Services supports SAML 2.0 authentication. If you choose to use SAML 2.0 authentication between the P6 provider in Gateway and P6 EPPM, then SAML authentication must be enabled in P6 EPPM and Primavera Gateway applications. The server administrator must

download the SAML token XML file on the Gateway server machine where the P6 deployment is to be created.

- Enable data encryption between P6 and Gateway

  For more details, see ***Enabling Encryption Between Gateway and P6 Web Services for On-Premises*** (on page 13)

Enabling Encryption Between Gateway and P6 Web Services for On-Premises

To ensure all requests and responses between Primavera Gateway and P6 Web Services are encrypted, you need a keystore file for encryption. There are several methods for generating a keystore file.

You can use the following sequence to generate and use the same keystore file on all servers:

1) Create a Keystore file as follows:
   a. Create a folder, for example, C:/keystore.
   b. Use the Java keytool genkey command to create a keystore with the private key:

      From the command line, execute:

      ```
      keytool -genkey -alias <alias_name> -keyalg RSA -sigalg SHA1withRSA
      -keypass <keyPassword> -storepass <storePassword> -keystore
      <keystore file location>
      ```

      Where:

      `<alias>` is the key alias

      `<keyPassword>` is the password of the private key

      `<storePassword>` is the password of the keystore

      For example:

      ```
      keytool -genkey -alias myAlias -keyalg RSA -sigalg SHA1withRSA
      -keypass myPassword -storepass myPassword -keystore
      c:\keystore\keystore.jks
      ```

   c. Enter information for each of the following questions:
      - What is your first and last name?

        Enter the Gateway host name.
      - What is the name of your organization?
      - What is the name of your city or locality?
      - What is the name of your state or province?
      - What is the two-letter country code for this unit? For example, US.
      - Is CN=<Gateway host name>, OU=<organization unit name>, O=<organization name>, L=<location>, ST=<state code>, C=<country code> correct? Enter `Y` or `N`.

> **Note:** If P6 Web Services is deployed on other than a Gateway machine, then copy the keystore folder with keystore.jks to the P6 Web Services machine.

2) In the Gateway user interface, select the **Configuration** tab and enter deployment information for P6. For more details, see ***Adding or Editing a P6 Deployment Connection*** (on page 22).
3) In P6 EPPM administration application:
   a. Enter the keystore information that was entered in the keystore file. The values must be identical.
   b. Modify the message protection node setting as follows:
      - Set the **Require Timestamp** value as *True*.
      - Set the **Require Digital Signature for Incoming Messages** value as *True.*
      - Set the **Require Encryption for Incoming Messages** value as *True.*
      - In the **KeyStore Type** field, enter *JKS*.
      - In the **File Location** field, enter the location of the .jks file. For example, c:\keystore\keystore.jks
      - In the **KeyStore Password** field, enter the password for the keystore file provided in keytool command.
      - In the **Private Key Alias** field, enter the alias name provided in keytool command.
      - In the **Private Key Password** field, enter the private key password for the keystore file provided in the keytool command.
      - If the encryption is on in Primavera Gateway, then NONCE and CREATED are included in the header for UserName Token authentication. To enable this:
      - Set the **NONCE** value as *True.*
      - Set the **CREATED** value as *True*.
4) After encryption is set, restart P6 Web Services.

Configuring Gateway for P6 Event Notification for On-Premises

If you choose to use the P6 Event provider delivered in Gateway, then configure the Gateway WebLogic domain to consume P6 event messages as follows:

1) Ensure the Primavera Gateway domain is running.
2) Sign in to the WebLogic Administration Server Console for the Gateway domain:
   a. In a browser, enter the following location:

      http://<hostname>:<port>/console

      Where, hostname and port is the hostname and port of your Primavera Gateway domain in WebLogic. The default port is **7001**.
   b. Enter the WebLogic administrator user name and password.
3) In the **Change Center** pane, select **Lock and Edit** before you make any changes to the domain.
4) Create a JMS server as follows.
   a. In the **Domain Structure** pane, expand **Services, Messaging, JMS Servers.**

b. In the **Summary of JMS Servers** pane, select **New**.

> **Note:** Select **Next** on each screen to advance to the next step.

1. Enter a **Name** for the JMS Server. For example, *Gateway JMS Server*.
2. Select **Create a New Store**.
3. In the **Type** list, select *File Store*.
4. Enter a **Name** for the File Store.
5. Select the **Target** for the file store:

   For Admin server, select *AdminServer.*

   For Managed server, select *GatewayCluster*.
6. Enter the **Directory** of the physical location of the file store. For example, c:\JMSFilestore.
7. Select **OK**.
8. Select **Finish**.

5) Create a JMS module as follows:
   a. In the **Domain Structure** pane, expand **Services, Messaging,** and **JMS Modules**.
   b. In the **Summary of JMS Modules** pane, select **New**.
      1. Enter a **Name** for the JMS module.
      2. Depending on your configuration, select the **Target** for the file store, as *AdminServer,* or *GatewayCluster* for a managed server.
      3. Select **Finish**.
6) Create a Foreign Server in the JMS module as follows:
   a. In the **Domain Structure** pane, expand **Services, Messaging,** and **JMS Modules**.
   b. Select the JMS module created in step 5.
   c. On the **Configuration** tab of the **Settings for <JMS Module>** pane, select **New**.
   d. Select **Foreign Server**.
   e. Enter a **Name** for the foreign server.
   f. Depending on the configuration, select the **Target** as *AdminServer,* or *gatewayCluster* for a Managed server.
   g. Select **Advanced Targeting** and then select **Create a New SubDeployment**.
   h. Enter a name for the **subdeployment** and then select **OK**.
   i. In the **subdeployment** list, select the created subdeployment.
   j. Depending on your configuration, select the **Target** as *AdminServer,* or *gatewayCluster* for a Managed server, and the JMS server created in step 4.
   k. Select **Finish**.
   l. Select **Save** to save the foreign server with a subdeployment.
7) Enter configuration settings for the foreign server created as follows:
   a. Select the foreign server created in step 6.
   b. In the **Settings for <Foreign Server Name>** pane, select the **Configuration tab**, and then the **General** tab.

c. Select the new foreign server created and enter values for the following configuration settings:
   - In the **JNDI Initial Context Factory** field**,** retain the default value.
   - In the **JNDI Connection URL** field, enter the URL to the P6 EPPM domain in the format: *t3://<P6_EPPM_host>:<port>/*
   - In the **JNDI Properties Credential** field, enter the P6 EPPM WebLogic domain password.
   - In the **Confirm JNDI Properties Credential** field, reconfirm the entered password.
   - In the **JNDI Properties** field, enter the P6 EPPM WebLogic domain user name in the following format: *java.naming.security.principal=<P6 EPPM WebLogic domain user name>*
   - Select **Save**. The newly created foreign server displays in the **Configuration** tab.

d. Create a connection factory for the foreign server as follows:
   1. In the **Settings for <Foreign Server Name>** pane, select the **Configuration tab**, and then the **Connection Factories** tab.
   2. Select **New**.
   3. Enter a **Name** for the connection factory.
   4. Enter the **Local JNDI Name**. For example, *jms/newCF*.

      Note: Make a note of the value entered in this field. You will need to enter this value to set up an event provider to a P6 Application deployment.

   5. Enter the JNDI name of the P6 EPPM Connection Factory as the **Remote JNDI Name**. For example, jms/P6ConnectionFactory.
   6. Select **OK**.

e. Create a destination for the foreign server as follows:
   1. In the **Settings for <Foreign Server Name>** pane, select the **Configuration tab**, and then the **Destinations** tab.
   2. Select **New**.
   3. Enter a name for the foreign destination.
   4. In the **Local JNDI Name**, enter the name of the JMS queue used by Gateway. For example, *jms/newGWQueue*.

      Note: Make a note of the value entered in this field. You will need to enter this value to set up an event provider to a P6 Application deployment.

   5. Enter the name of the P6 EPPM JMS queue as the **Remote JNDI Name**. For example, *jms/P6Queue*.
   6. Select **OK**.

8) In the **Change Center** pane, select **Activate Changes** to enforce all the changes made to the domain.

Configuring Applications for Data Migration

In This Section

Managing Personal Information

Consent notices enable you to convey to your users how personal information (PI) is collected, processed, stored, and transmitted, along with details related to applicable regulations and policies. Consent notices also alert users that the action they are taking may risk exposing PI. Primavera Gateway helps you to ensure that you have requested the appropriate consent to collect, process, store, and transmit the PI your organization holds as part of Primavera Gateway data.

For more details on how to configure consent forms and manage PI data in Gateway, see *Primavera Gateway Administration Guide*.

Configuring Primavera Gateway

Gateway administrators and developers can configure Primavera Gateway by setting up:

- Application-level configuration properties on the **Settings** page
- Deployments to connect with applications for sending and receiving data
- Configuration Data to seamlessly replicate Gateway configurations, and specific synchronizations
- Field Mapping Templates for business flows
- Custom Steps for business flows
- File Converters to enable sending and receiving data in supported file formats
- Add-Ins to manage customizations
- Consent Forms to activate consent notice for users

These tasks must be completed before you begin to transfer data between applications. The following section describes how to complete each task.

Configuring Gateway Settings

Use the **Settings** page to specify settings for the installed Gateway application. For example, specify the Help location, or the job timeout value in minutes.

> **Note**: The settings available in this dialog box may vary depending on the application connections that have been set up in Gateway.

To configure Gateway application settings:

1) Select ✕ and then select **Settings**.
2) Update the settings as necessary and select **Save** when finished.

   On the **General** tab:

   - **Help URL**: Enter the help system hosted by Oracle as *http://docs.oracle.com/cd/F37377_01/help/en/index.htm.* By default the Help URL displays the most recently delivered version.
   - **Maximum number of job logs to display per page**: Enter a value to control the number of logs displayed on the Monitoring page. By default displays 25 job logs.
   - **Auto delete jobs after XX days (0 turns off auto delete)**: Enter the number of days that a job log can be retained before it is auto deleted. Enter 0 to turn off auto delete. By default, displays 30 for new customers.
   - **Maximum wait time for the parallel load/convert steps to complete (in minutes):** Enter the number of minutes after which a synchronization job process is to be timed out. The job status of a timed-out synchronization is set to **Failed.** By default, the timeout is set to **30** minutes.
   - **Maximum concurrent jobs in a node:** Enter the maximum number of jobs that can be executed concurrently at a node. By default 4 jobs can be executed concurrently.
   - **Job polling Interval (in seconds):** Enter the wait time interval in seconds to check the database if there are new jobs to run. By default, the wait interval is set to 2 seconds.
   - **Job timeout value (in minutes)**: Enter the wait time interval in minutes to timeout a synchronization job. By default, the timeout is set to **300** minutes.
   - **Maximum File Size Limit (in MB)**: Enter the maximum file size limit for uploading files from Gateway user interface or from external applications. The file size limit applies to all providers and all supported file formats: CSV, XML, XLS, and XLSX. By default, the maximum file size limit is set to 1024 MB.
   - **Maximum job log size for XML format (in MB)**: Enter the maximum file size limit for job log size. Job log files over 10 MB (default) are saved in JSON format by default.
   - **Enable Configurable Consent Forms**: Select this check box to display the **Consent Forms** tab on the Configuration page in Gateway. If you enable this option and then proceed to configure and enable specific consent forms, your users will need to give their consent to gain full access to specific features and functions of Gateway. By default, the check box is deselected.
   - **Disable Logging For Jobs**: For integrations with Unifier, select this check box to improve performance with large sets of earned value management data. By default, the check box is deselected.
   - **Enable Object Logging for Jobs**: Select this check box to disable the display of data at the object level in the **Data Details** tab of the **Monitoring** page, and improve performance.
   - **Maximum wait time for GSL Custom Steps to Complete (in seconds)**: Enter the maximum wait time in seconds when processing a GSL custom step. By default, the wait time is set to *5* seconds.

   If you choose to integrate with P6, enter the following information on the **P6** tab:

   - **Create new resource code values during synchronization to P6**: Select this check box to enable the creation of new resource code values in the P6 EPPM resource code dictionary if these values do not already exist. By default, the check box is selected.

- **Create new project code values during synchronization to P6**: Select this check box to enable the creation of new project code values in the P6 EPPM project code dictionary if these values do not already exist. By default, the check box is selected.
- **Create new activity code values during synchronization to P6**: Select this check box to enable the creation of new global activity code values in the P6 EPPM activity code dictionary if these values do not already exist. By default, the check box is selected.
- **Include time zone when exporting from P6:** Select this check box to export P6 server time zone information along with P6 date and time fields. By default, this option is **not** selected, except for spread interval data in P6.

  Note: This time zone setting applies only for a Primavera Cloud - P6 integration.

  Send P6 Spread to Unifier as a file: Select this check box to improve the performance of job runs related to a P6 - Unifier synchronizations that include daily spread fields. The daily spread fields on the P6 side are packaged into a separate zip file and sent direct to Unifier bypassing Gateway, whereas all non-spread fields in the synchronization are sent to Unifier using Gateway. By default, the check box is deselected.

  When this check box is deselected, Gateway packages all fields, including the daily spread fields in the synchronization, and sends it to Unifier.
- **Update activity resource assignments when assigned UDF values match**: Enter the UDF code value that is assigned to resource assignments which you want to update during a synchronization. Use this to update the resource assignment with the matching UDF value when the assignment exists multiple times on an activity. By default no UDF value is set.
- **Maximum wait time for the summarizer to complete (in seconds)**: Enter the amount of time in seconds to wait for the summarizer to complete before a warning is given. By default the wait time is set for 120 seconds.
-

On the **Mail Configuration** tab:

- **SMTP Server**: Enter the SMTP server address of your email server.
- **Port Number**: Enter the port number of your email server.
- **Email Security**: Select the applicable email security type. Choices include, **SSL**, **TLS**, and **None**.
- **Email Address**: Enter the email address for the user who is to be notified for a specific status of synchronization jobs. These statuses include: *Completed*, *Review*, *Cancelled*, *Completed with Errors*, *Completed with Warnings*, and *Failed*.
- **Authorized User**: Enter the user name for this email account.
- **Password**: Enter the password for the authorized user.
- **Bounce Email Address**: Enter an alternate email address to be used if mail fails to be delivered to the first email address.

On the **Server** tab:

- **Server Log Detail Level**: From th list, select the type of detailed information to be included in the server log file. Choices include:
  - **Error** (default): Select this value to display application errors in the log file.

- **Info**: Select this value to display a brief description in the log file.
- **Debug**: Select this value to display a general debugging event.
- **Off**: Select this value to not generate any server log details.

Adding or Editing a P6 Deployment Connection

To move data between applications, Primavera Gateway needs to know where to get and send information. Set this up by adding application deployment connections by specifying an **Endpoint** URL for each application.

P6 Cloud Service

For P6 cloud service, contact Oracle Support to:

- add one or more P6 deployments
- copy an existing P6 deployment

P6 On-Premises Installations

For on-premises installations, add or edit a P6 deployment connection as follows:

1) Enter the Primavera Gateway URL in the format:
   http://<host name>:<port>/gateway
   Where, <host name> and <port> should match those of your Primavera Gateway domain.
2) Sign in to Primavera Gateway with administration credentials.
3) In the sidebar, select **Configuration**.
4) Select the **Deployments** tab.
5) Select + **Add...** or ✎ **Edit...**.
   The **Deployment** wizard displays.
6) In the **General** step, select **P6** from the **Select Application Provider** list, and name the deployment.

   Note: Select **Next** on each screen to advance to the next step.

7) In the **Deployment** step, set up P6 connectivity from Gateway:
   - **P6 Webservices authentication type:** Select any of the following authentication types.
     - *SAML2.0 Token* or
     - *UserName Token*
     - *OAuth*
   - **User Name**: Enter the name of a P6 administrator with access to projects in P6 EPPM.
   - **Password**: If you chose *UserName Token* authentication, enter the case-sensitive password of the P6 administrator.

     Endpoint: Enter the URL to connect with P6 Web Services in the format, *http:<host name>:<port>/p6ws/services/SyncServiceV1*
   - **P6 Database Instance ID:** Enter the database instance ID associated with the P6 application.

- **SAML 2.0 Token File:** If you chose *SAML2.0 Token* authentication, then browse or enter the location of the downloaded SAML 2.0 token XML file used by P6 Web Services for authentication.
- If you chose *UserName Token* or *SAML2.0 Token* authentication, then enter the following information:
  - **Enable Encryption:** Select this option if you want to enable encryption when using P6 web services.
  - **Keystore File:** Enter or **Browse...** to the keystore file.

    For more details on how to generate a keystore file and keystore password, see ***Enabling Encryption Between Gateway and P6 Web Services for On-Premises*** (on page 13).
  - **Keystore Password:** Enter the password for the keystore file.
  - **Certificate Alias:** Enter the certificate alias used for authentication.
- **P6 Currency:** Enter the base currency for the P6 deployment.

8) Select **Test Connection** to ensure connectivity with P6 is established.
9) Select **Save**.

Tips

- You can also edit a deployment and select **Save** in any step to exit the wizard.

Adding or Copying a Primavera Cloud Deployment Connection

To move data between applications, Primavera Gateway needs to know where to get and send information. Set this up by adding application deployment connections by specifying an **Endpoint** URL for each application.

For Primavera Cloud service, contact Oracle Support to:

- add a new Primavera Cloud deployment
- copy an existing Primavera Cloud deployment

Copying a P6 On-Premises Provider Deployment

To use a provider deployment in distinct environments, copy the current deployment and then edit the copied version by modifying the connection information to support the specific environment as needed. All the attributes and values of the current provider deployment are carried over to the copy by default.

To copy a P6 on-premises provider deployment:

1) In the sidebar, select **Configuration**.
2) Select the **Deployments** tab.
3) Select the deployment you want to copy, select the **Actions** ▼ menu, and then select **Copy**.
4) In the **General** step of the **Deployment** wizard:
   a. In the **Deployment Name** field, rename the deployment.

      The default name of the copied deployment is always created with the word, *Copy*. For example, a copy of the *P6 Deployment* will be named as *P6 Deployment Copy* by default.

b. In the **Description** field, edit the description of the copied deployment.

> Note: Select Next on each screen to advance to the next step.

5) In the **Deployment** step:
   a. Edit the connection information from Gateway as needed.

> **Note**: Passwords cannot be copied, and must be entered manually.

   b. Select **Test Connection** to ensure connectivity with the source or destination application.
6) Select **Save** to add the deployment.

Exporting Configuration Data Files by Provider

Export Gateway configuration data directly from the user interface to replicate Gateway environments as follows:

1) In the sidebar, select **Configuration** and then select the **Import/Export** tab.
2) In the **Export Configuration Data** section, select **By Provider**.
3) Use the **Ctrl** or **Shift** keys to select any of the following providers from the **Provider** list:
   - EnterpriseTrack
   - File
   - Gateway
   - P6
   - Primavera Cloud
   - Sample
   - Unifier
4) By default all the data files are selected for export from the **Data** list. So, use the **Ctrl** or **Shift** keys to *deselect* any of the following configuration data files:
   - Business Flow / Synchronization
   - Cross Reference
   - Customization
   - Event Provider
   - Flow Definition
   - Field Mapping Template
   - File Converters, only if the File provider is installed
   - Metadata
   - Provider
   - Value Mapping
5) Select **Export** to generate a zip file.
6) Select **Save** to save the zip file.

The default naming convention for any generated zip file is: *<Provider1Provider2...ProviderN>_ConfigurationFiles_V<GatewayVersion>_<ExportDateFormat_mmddyyyy>*

> **Tip:** The exported data will not contain passwords. So, you must re-enter the password after importing data into Gateway.

Exporting Configuration Data Files by Synchronization

If you create a new business flow for a new synchronization, you can check what objects, fields, cross references, field mapping templates, flow definitions, metadata, value mappings, provider, and business flow will be used by the synchronization, *before* actually running the synchronization in Primavera Gateway, by exporting Gateway configuration data associated with only the specific synchronizations.

To export data files associated with specific synchronizations:

1) In the sidebar, select **Configuration.**
2) Select the **Import/Export** tab.
3) In the **Export Configuration Data** section, select **By Synchronization**.
4) Use the **Ctrl** or **Shift** keys to select multiple synchronizations from the **Synchronization** list.
5) By default all the data files are selected for export from the **Data** list. So, use the **Ctrl** or **Shift** keys to *deselect* any of the following configuration data files:
   - Business Flow / Synchronization
   - Cross Reference
   - Customization
   - Event Provider
   - Field Mapping Template
   - File Converters, only if the File provider is installed
   - Flow Definition
   - Metadata
   - Provider
   - Value Mapping
6) Select **Export** to generate a zip file.
7) Select **Save** to save the zip file.

   The default naming convention for any generated zip file is: Synchronizations_*V<GatewayVersion>_<ExportDateFormat_mmddyyyy>.*

> **Notes:**
>
> - Any custom step created for a business flow using the formula editor in the **Custom Steps** tab of the **Configuration** page will also be included in the export.
> - If multiple synchronizations are selected for export, then the configuration data of all the synchronizations is zipped in the

generated export file.

- The exported data will not contain passwords. So you must re-enter the password after importing data into Gateway.

Configuring Consent Notices for Primavera Gateway

To configure consent notices for Primavera Gateway:

1) Sign in to Primavera Gateway as an administrator or developer.
2) Select ✕ and then select **Settings**.
3) In the **General** tab, select **Enable Configurable Consent Forms**.
4) In the sidebar, select **Configuration**.
5) Select the **Consent Forms** tab.
6) In the **Name** field, select a consent form, and then select ✎ **Edit...**.

> **Note**: The **Cookies Consent** is automatically enabled when any consent form is enabled.

7) The **Edit <Consent Form Name>** dialog box displays. For example, *Edit Login Consent Form* displays.
8) Select **Enable Consent Message** to allow the notice to be shown to users of the selected consent form.

   For Gateway administrators, enable *all* consent forms.

   For Gateway administrators with no data access and Gateway developers, enable all consent forms except **Download Consent**.

   For Gateway users, enable **Login Consent**, and **Download Consent**.

   For Gateway users with no data access, enable **Login Consent** only.
9) Enter and format the text for the consent notice in the **Consent Message** area.

> **Note**: Work with your data security and legal teams to determine the wording of the consent notice.

10) Select **Save**.
11) Continue to configure consent notices for other consent forms.

Working with Migration Data Flows

When your organization chooses to transition from one application to another, you will need to migrate entire sets of data. Primavera Gateway provides a **Migration Data** business flow to simplify this process.

You can use this process to:

- migrate data from P6 on-premises to P6 cloud
- migrate data from P6 to Primavera Cloud
- migrate P6 data from a testing environment to a production environment

To migrate data between applications, select the **Migration Data** business flow from the **Flow Type** menu.

In This Section

Adding a Migration Data Business Flow

You can migrate data from *P6* to another *P6* application or to Primavera Cloud.

To migrate data using Primavera Gateway:

1) In the sidebar, select **Flow Type**, and choose **Migration Data**.
2) Select the **Business Flows** tab.
3) Select + **Add...**.
4) In the **General** step of the **Business Flow** wizard:
   a. Select *P6* as the source application from the **Source** list.
   b. Select *P6* or *Primavera Cloud* as the destination application from the **Destination** list.
   c. In the **Business Flow Name** field, enter or edit the name for the business flow.
   d. In the **Description** field, enter a short description about the use of the business flow.

   Note: Select **Next** on each screen to advance to the next step.

5) In the **Source App Parameters** step, specify the projects that are to be migrated.

   For more details, see ***Setting Source Provider Application Parameters to Migrate Data*** (on page 28).
6) In the **Destination App Parameters** step, specify the location of the migrated data in the destination application.

   If you choose to migrate to another *P6* application, specify the EPS location.

If you choose to migrate *P6* data to *Primavera Cloud*, then specify the workspace location.

For more details, see ***Setting Source Provider Application Parameters to Migrate Data*** (on page 28).

7) In the **Summary** step, review a summary of all the selections made in the previous steps:
   a. Expand each step title to review the selections made in that step.
   b. Select any of the following actions:
      - Select **Back** to navigate to a specific step and make changes.
      - Select **Save.**

   Proceed to add a synchronization which will use the migration data business flow you have now created. For more details, see Adding Synchronizations.

Tips:

- Select **Edit...** to edit an existing business flow and then move through the wizard to update the objects and fields as needed.
- Always name the business flows such that it will help you remember the type and direction of information in the flow. For example, *Migrate Project Data from P6 to Primavera Cloud*.

Setting Source Provider Application Parameters to Migrate Data

Gateway developers and Gateway administrators can access and view all the parameters listed below. Set the behavior of these parameters in the business flow wizard by specifying the **Attribute** for each as any of the following values: **Hidden, Optional, Read-only,** or **Required**.

P6 Source Application Default Parameters

The following provider application parameters display when a P6 deployment is designated as the *source* application in a migration data flow. Gateway developers and Gateway administrators can access and view all parameters listed below. Set values and attributes for the following parameters:

- **P6 Filter**

  Use this setting to identify and select projects in P6 using *Project Ids, EPS Ids, Project Code, Project Code Type Name,* or *Project Code Value*.

  Select projects by:

  - Entering multiple values for **Project Id** and **Project Code** as comma-separated values
  - Entering multiple values for **EPS Id** as comma-separated values or
  - Entering multiple **Project Codes** with values in the following format:*Type Name = Value Name.*

    For example:

  1. In the **Fields** list, select *Project Code.*
  2. In the **Value** list, enter: *Integrate to P6 = Yes*, and then select **Add Row.**

     To specify a second condition for **Project Code**:
  3. In the **Fields** list, select *Project Code.*

  In the **Value** list, enter *Sales Country Code = DE*, and then select **Add Row.**

- **Baseline**

Use this setting to select the type of baseline to include when migrating P6 data. Choose to include:

- *No Baseline*
- *Baseline Names*
- *Project Baseline* or
- *All Baseline*

If you choose *Baseline Names for the above parameter*, then enter the names of the baselines that will be migrated in the **Baseline Names** parameter.

Primavera Cloud Source Application Default Parameters

The following provider application parameters display when a Primavera Cloud deployment is designated as the *source* application in a migration data flow. Gateway developers and Gateway administrators can access and view all parameters listed below. Set values and attributes for the following parameters:

- **Primavera Cloud Project Filter**

  Use this setting to identify and select projects by using *Project Ids* in Primavera Cloud. *21.12*

Setting Destination Provider Application Parameters to Migrate Data

Gateway developers and Gateway administrators can access and view all the parameters listed below. Set the behavior of these parameters in the business flow wizard by specifying the **Attribute** for each as any of the following values: **Hidden, Optional, Read-only,** or **Required**.

> **Note:** Unless specified in parentheses, all parameters listed below are hidden from a non-administration user.

From P6, data can be migrated to another

- P6 application or
- Primavera Cloud application

P6 Destination Application Default Parameter

If you choose to migrate P6 data to another P6 environment, set the value and attribute for the following parameter.

- **EPS Location**

  Use this setting to specify the EPS node where the project should be created in the destination P6.

Primavera Cloud Destination Application Default Parameter

If you choose to migrate P6 data to another Primavera Cloud environment, set value and attribute for the following parameter.

- **Workspace Location**

Use this setting to specify the default workspace and populate it in a synchronization. If the value is set in Primavera Gateway, then Primavera Cloud will check if the **Primavera Cloud Workspace** field value exists and will use it to create the project.

P6 must send all global data assigned to the project with the project flow. All global data will be assigned to the workspace where the project will be created in Primavera Cloud.

Copying Business Flows

When you need to create a new business flow similar to an existing flow, copy the current business flow and then edit as needed.

To copy a migration data business flow:

1) In the sidebar, expand the **Flow Type** menu and then select **Migration Data**.
2) In the **Name** column, select the migration data business flow you want to copy, and then select **Copy** from the **Actions** ▼ menu.

   The **Business Flow** wizard displays a copy of the selected business flow by appending the word *Copy*. For example, *Migrate P6 Projects to Primavera Cloud Copy.*
3) In the **General** step, rename the business flow and select **Next**.

> **Note**: Select **Next** on each screen to advance to the next step.

4) In the **Source App Parameters** step, specify the projects you want to migrate.

   For more details, see ***Setting Source Provider Application Parameters to Migrate Data*** (on page 28)
5) In the **Destination App Parameters** step, specify the location of the migrated data in the destination application.

   For more details, see ***Setting Destination Provider Application Parameters to Migrate Data*** (on page 29).
6) In the **Summary** step, review all the selections made in the previous steps:
   a. Expand each step title to review the selections made in that step.
   b. Select any of the following actions:
      - Select **Back** to navigate to a specific step and make changes.
      - Select **Save** to add the duplicated business flow.

Executing the Migration Data Business Flow

The **Migration Data** business flow is executed as a distinct sequence of flow steps. Each flow step executes a specific action within a flow.

The following types of flow steps are included in a Migration Data business flow.

- **Export from Source**: This step exports the project data from the source application into Gateway so that it can be processed.
- **Update Destination**: This step saves the project data into the destination application's database.

Deleting Business Flows

To delete a migration data business flow:

1) Sign in to Gateway as a developer or an administrator.
2) In the sidebar, expand the **Flow Type** menu, and then select **Migration Data**.
3) Select the row listing the business flow you want to delete, and then select **Delete** from the **Actions** ▼ menu.
4) In the **Confirmation** dialog box, select **Confirm**.

Working with Synchronizations

A synchronization in Gateway is a job set up to run on-demand or on schedule to migrate data from the source application to the destination application. To ensure data is migrated, you will need to create a synchronization that uses a **Migration Data** business flow created in Gateway.

Gateway users and administrators can set up, run, and monitor synchronizations in Gateway.

This chapter describes how to create and use synchronizations for migrating data using Primavera Gateway.

In This Section

Adding Synchronizations

After adding a migration data business flow, you can add a new synchronization that will use this business flow to migrate data to the destination application using the **Synchronization** wizard.

To transfer data between applications:

1) Sign in to Primavera Gateway as an administrator or a user.
2) In the sidebar, select **Synchronizations**, and then select + **Add...**.
3) Follow the steps in the **Synchronization** wizard to name and configure the synchronization.

> **Note**: If you edit a synchronization and change the business flow, then you must review and update the parameters as needed.

4) Select **Save** in any step of the wizard to save the changes and exit the wizard instantly.
5) To run the synchronization, highlight the saved synchronization and select **Run**.

> **Tip**: You can also schedule a synchronization. See ***Scheduling Synchronizations*** (on page 33).

Scheduling Synchronizations

Set up a synchronization schedule to run specific synchronizations on a frequent basis.

To schedule a synchronization in Gateway:

1) In the sidebar, select **Synchronizations**.
2) Select the synchronization you want to copy.

3) In the **Actions** ▼ menu, select **Edit Schedule...**.
4) In the **Recurrence Pattern** section, select the frequency of the synchronization.
   - From the **Frequency** list, select *Daily*, *Weekly*,*Monthly*, or *After Synchronization*.
   - Complete the additional fields which display for the selected frequency.

> **Note**: If you select *After Synchronization*, then you can schedule multiple synchronizations that run sequentially. For more details, see ***Scheduling Sequential Synchronizations*** (on page 34).

5) In the **Range of Recurrence** section, enter the duration of the synchronization being scheduled.
   a. In the **Starts** field, enter or select the start date and time of the synchronization schedule.
   b. In the **Ends** field, select any of the following options:
      - **No end date**: The synchronization schedule will run for the selected frequency until canceled manually.
      - **End after # occurrences**: The synchronization schedule will end after running a specific number of times for the selected frequency.
      - **End By**: Enter or select the end date and time of the synchronization schedule.
6) Select **Save**.

Scheduling Sequential Synchronizations

A synchronization job sequence is a sequence of synchronizations that are executed consecutively.

To schedule a synchronization job sequence:

1) In the sidebar, select **Synchronizations**.
2) In the **Synchronization Name** column, select the next or the final synchronization that is to be run in the job sequence.
3) In the **Actions** ▼ menu, select **Edit Schedule...**.
4) Select *After Synchronization* from the **Frequency** list.
5) Select the previous synchronization that is to be run in the sequence from the **Run After Synchronization** list.

   The previous synchronization must finish with a status of *Completed*, or *Completed with Warnings* to begin the next synchronization.

   If a synchronization fails to run, all subsequent linked synchronizations will not run in the job sequence.
6) Repeat the above sequence to set up multiple linked synchronizations in a sequence.
7) Select **Save**.
8) To view a flow chart of the linked synchronizations:
   a. In the **Synchronization Name** column, select the linked synchronization.
   b. In the **Actions** ▼ menu, select **Job Chain Diagram**.

> **Note**: This option is enabled only for a linked synchronization.

9) To run the job sequence:
   a. On the **Synchronizations** page, select the **Synchronization Name** that was last setup in the job sequence.
   b. Select **Run**.
   c. In the **Run Synchronization** dialog box, select any of the following options:
      - Run only the selected synchronization or
      - Run the selected synchronization, and the entire linked job sequence
10) Select **Confirm.**
11) On the **Monitoring** page, review the data transferred by the job sequence.

Copying Synchronizations

You can copy an existing synchronization, and then edit the copy to create a new synchronization as needed.

> **Note**: This is a quicker method to create a synchronization from an existing synchronization.

To copy a synchronization in Gateway:

1) In the sidebar, select **Synchronizations**.
2) Select the synchronization you want to copy, select the Actions menu, and then select **Copy**.
   The **Synchronization** wizard displays a copy of the current synchronization.
3) In the **Flow and Deployments** step:
   a. In the **Synchronization Name** field, rename the synchronization.
      The default name of the duplicate synchronization is always created with the word, *Copy*. For example, *Send Primavera Cloud Project Data to P6 Copy*.
   b. From the **Business Flow** list, select a business flow that is to be used by the synchronization.
   c. The source and destination for data transfer are pre-selected. Update only if necessary.

> **Note**: Select **Next** on each screen to advance to the next step.

4) In the **Parameters** step, edit the value of each parameter as needed.
5) In the **Summary** step, review a summary of all the selections made in the previous steps.
   Select any of the following actions:
   - Select **Back** to navigate to a specific step and make changes.
   - Select **Save** to add the synchronization.

The synchronization is now available for running on the **Synchronizations** page.

Deleting Synchronizations

To delete a synchronization in Gateway:

1) In the sidebar, select **Synchronizations**.
2) Select the synchronization you want to copy, select the **Actions** ▼ menu, and then select **Delete**.
3) In the **Confirmation** dialog box, select **Confirm**.

Note: When you delete a synchronization, all job logs associated with a synchronization are also deleted.

Monitoring Synchronizations

Use the monitoring feature in Gateway to troubleshoot failed synchronizations or track the status of the transfer in each step of a synchronization jobs.

This chapter describes how to monitor synchronizations in Primavera Gateway.

In This Section

Monitoring the Steps of a Data Transfer

To monitor the details in each step of a data transfer:

1) In the sidebar, select **Monitoring**.
2) (Optional) To find a specific synchronization job, use the **Filter** list to display specific jobs or select a column heading to sort information in the column alphabetically.
3) Perform any of the following actions:

   Select **Refresh** to update the results.

   From the **Actions** menu:

   - Select **Cancel** to cancel jobs with a status of **In Progress**, **Delegated**, **Pending**, or **Queued**.

     When a parent job is canceled:

     - The steps of the current job in process will complete, but the status of all subsequent steps will be set to *Never Run*.
     - All child jobs will also be canceled.
     - The status of all child jobs completed prior to the cancellation remain unchanged.
     - The status of all child jobs currently in progress is set to *Canceled*.
     - The status of all child jobs that did not start is set to *Canceled*.
   - Select **Delete** to delete the selected job.
   - Select **Re-run Job** to repeat the job run using the same parameters that were entered in the Synchronization page. If any fields have been added or removed from the job, then those changes will be included during the job re-run.
   - Select **Delete XRef for Job** if you want to delete the current cross-references (tracking information) related to the job. Use this option if you want to recreate cross-references by sending the data again. The data will be considered new when sending to the destination. Only jobs with a status of *Completed*, *Failed*, *Completed with Warning*, or *Canceled* can be deleted. This option is available to Gateway administrators only.

- Select **Delete XRef by Deployment** if you want to only delete all cross-references (tracking information) associated with the data that has been sent in Gateway between specific deployments of the source and destination applications. You will need to create new jobs to create new cross-references to transfer data again between the deployments. This option is available to Gateway administrators only.

  Note: You are only deleting the deployment tracking information of the data transferred so far in Gateway. The sent data will continue to be available in the destination application.

4) In the **Job** column, select a job number.
5) In the **Job Details** tab, perform any of the following actions:
   - Expand each flow step to review the work done by the synchronization.
     - If a parent job has child jobs, select each job to review the flow steps for more information.
     - In the **Status** column, select **Review** link to access further information about the flow step on the **Summary** page.
     - Select **Download** to save the job details contained in each flow step as a zip file.

       If the job has a status of *Failed*, *or Completed with Warnings*, expand the failed step and view the log file containing the warning message or error message. The log files are generated in the format *Warning_job#.log* and *Error_job#.log*.

     Note: If you are a user or administrator with *no* data access privileges, you cannot review the actual data being transferred in each step of a job nor download the job details. An error message, *Insufficient Permissions*, is displayed.

   - Select **Details** to troubleshoot and locate errors when a job fails.

     View all the setup details used when a synchronization was run. This includes details on the synchronization, business flows, field-mapping templates, deployments, settings, and the run-time parameters used by the synchronization. Provide this file when you have to report an issue to Oracle Support.

Tips:

- You can configure the number of jobs displayed using the **Maximum number of job logs to display per page** setting in the **Settings** dialog box.
- If configured when defining a business flow, you can be notified by email when a synchronization job completes.

Monitoring the Objects in a Data Transfer

Use the monitoring feature in Primavera Gateway to track synchronization jobs or troubleshoot failed jobs that returned errors when transferring each object.

To monitor the work done on each object:

1) In the sidebar, select **Monitoring**.

2) (Optional) To find a specific synchronization job, use the **Filter** list to display specific jobs or select a column heading to sort information in the column alphabetically.
3) To update the results, select ↻ **Refresh**.
4) In the **Job** column, select a job number.
5) On the **Job #** page, select the **Data Details** tab.
6) (Optional) Select **File Output...** to download the file data to any file format supported in Gateway (csv, xls, xlsx, and XML).

> **Note**: The button displays only when when File is the destination application and the **File Data Source Type** is set to *File Upload* in the File Provider deployment.

7) In the **Summary** section, select an action count for a business object in any of the following columns:
   - **Create**: The estimated number of create actions that will be performed by the job in the transfer of each object in the destination application.
   - **Update**: The estimated number of update actions that will be performed by the job in the transfer of each object in the destination application.
   - **Delete**: The estimated number of delete actions that will be performed by the job in the transfer of each object in the destination application.
   - **Error**: The estimated number of errors that will be generated by the job in the transfer of each object in the destination application.
   - **Total**: The estimated total number of actions that will be performed by the job in the transfer of each object in the destination application.
8) In the **Business Object Details** section of the selected business object:
   - Review the actual data that was transferred in each **Create, Update,** and **Delete** actions performed on the business object.
   - Review the actual **Response** for each action in the destination application.
   - Review the **Errors** generated for each data that failed to be transferred by the synchronization.

> **Notes:**
>
> - If you have no access to data, you cannot view the details of the data passed in each object. You can only view the errors and warning messages associated with each step.
> - When you download the log files, the synchronization setup details are also included in the download.
> - The object level reporting details can be downloaded only after a synchronization job reaches the **Update Destination** step in a flow.

Glossary

The following is a list of common Gateway terms used in this document.

B

Business Flow

A collection of business objects and their underlying supported fields selected for data transfer.

C

Cross-reference

A means for Gateway to track data being sent from the source application and received in the destination application. A cross-reference determines if the data is to be regarded as new data or an update to existing data in the destination application. If you delete or remove a cross-reference in Gateway, all history of data transfers is deleted within Gateway, although the data that was sent using this cross-reference will continue to exist in the destination application.

D

Deployment

The information required to connect to a specific database or an instance of an application from or to Gateway. For example, you may want to connect to two instances of a P6 EPPM application: *Testing* and *Production* from Gateway.

Destination Application

The application to which the data is being sent to.

F

Field Mapping Template

A template file which contains a list of fields mapped between the source application, Gateway, and the destination application for each business object. Gateway uses this file to determine how to populate data in the destination application. More than one field mapping template can be created for each business object. These template files are used by a business flow to transfer data during a synchronization run.

Flow Step

A business flow is an ordered sequence of flow steps where data is processed within each flow step. The success or failure of each flow step can be viewed from the **Monitoring** page of Primavera Gateway.

J

Job

A job number assigned in Gateway for each synchronization run to uniquely identify and monitor the data transfer.

M

Master Data

Master data is data that influences all subsequent data transfers between the source and destination applications. A destination application must be equipped with this data from the source application before sending or receiving data. For example, roles and resources are considered as master data for managing any project in an application and must be setup before any project data is transferred between applications.

Migration Data

Migration Data refers to a collection of master data and project data elements identified for a project in the source application for migration to a destination application. Gateway provides a **Migration Data** flow type for creating business flows to migrate data between applications. When you use this business flow, you will need to create your own migration data business flow and synchronization to migrate the data.

P

Project Data

Project data refers to data belonging to a project within the source application. Project data is sent to Gateway and then received in the destination application. These data elements influence only a specific project in an application.

S

Source Application

The application from which the data is being sent from.

Synchronization

A synchronization is a job that is executed to transfer data from a source application to a destination application. Gateway transfers data between two applications using synchronizations.

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