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New EPM Cloud Services

Oracle has introduced two new Oracle Enterprise Performance Management Cloud services: Oracle Enterprise Performance Management Standard Cloud Service (EPM Standard Cloud Service) and Oracle Enterprise Performance Management Enterprise Cloud Service (EPM Enterprise Cloud Service).

In this Section:

• Who Should Read this Chapter
• About the New EPM Cloud Services
  – EPM Standard Cloud Service
  – EPM Enterprise Cloud Service
• EPM Standard Cloud Service Landing Page
• EPM Enterprise Cloud Service Landing Page
• What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service?
• About Essbase in EPM Cloud
• New EPM Cloud URL
• Creating a Free Form Application
• Switching to a Different Business Process
• Product Name and Terminology Changes

Who Should Read this Chapter

You should read this chapter if you purchased EPM Standard Cloud Service or EPM Enterprise Cloud Service.

New Customers

Changes introduced as a part of the new approach to structuring Oracle Enterprise Performance Management Cloud business processes affect new customers and existing customers who purchase additional new subscriptions. New customers who purchase one of the following EPM Cloud services should read this chapter.

• EPM Standard Cloud Service
• EPM Enterprise Cloud Service

Existing Customers Adding a New Service

Current customers will continue using the existing EPM Cloud environments with which they are familiar.
About the New EPM Cloud Services

The new Oracle Enterprise Performance Management Cloud Services provide end-to-end business processes to meet the requirements of most organizations and ensure a connected and agile experience across multiple business processes.

New customers now purchase one of the following EPM Cloud services.

- **EPM Standard Cloud Service**
- **EPM Enterprise Cloud Service**

The business processes and features available to you depend on the specific EPM Cloud service that you purchased. Generally, the EPM Enterprise Cloud Service includes everything in the EPM Standard Cloud Service as well as additional offerings as illustrated in the following image:

#### EPM Standard Cloud Service

- Module-based Planning
  - Capital
  - Financials
  - Projects
  - Workforce
  - Strategic Modeling
- Hybrid BSO Cubes and ASO Reporting Cubes

#### EPM Enterprise Cloud Service

- Planning
  - Custom Planning
  - Free Form Planning
  - Module-based Planning
    - Capital
    - Financials
    - Projects
    - Workforce
    - Strategic Modeling
    - Groovy Support
    - Hybrid BSO Cubes and ASO Reporting Cubes
- Account Reconciliation
  - Reconciliation Compliance
  - Transaction Matching
- Financial Consolidation and Close
  - Supplemental Data Management
  - Financial Consolidation
  - Close Management
- Support for complex ownership structures and custom calculations

#### Narrative Reporting

- Report Packages
- Management Reporting

#### Enterprise Data Management Cloud

- Profitability and Cost Management
- Tax Reporting

---

Watch this video Learn more about all of the value in EPM Standard Cloud Service and EPM Enterprise Cloud Service.

### EPM Standard Cloud Service

EPM Standard Cloud Service is a suite of business processes, primarily for small and mid-sized businesses, and for businesses with lower complexity requirements to support planning and budgeting, consolidation and close, account reconciliation, and narrative reporting processes.
The following image presents an overview of the business processes available in EPM Standard Cloud Service:

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<th>EPM Standard Cloud Service</th>
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<th>Excludes</th>
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<td><strong>Includes</strong></td>
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<tr>
<td>• Module-based Planning</td>
<td></td>
<td>• Custom Planning</td>
</tr>
<tr>
<td>• Capital</td>
<td></td>
<td>• Free Form Planning</td>
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<tr>
<td>• Financials</td>
<td></td>
<td>• Groovy Support</td>
</tr>
<tr>
<td>• Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Workforce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strategic Modeling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hybrid BSO Cubes and ASO Reporting Cubes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Account Reconciliation</strong></td>
<td></td>
<td>Transaction Matching</td>
</tr>
<tr>
<td><strong>Financial Consolidation and Close</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(with default, built-in calculations)</td>
<td></td>
<td>• Custom Consolidations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Intelligent Process Automation</td>
</tr>
<tr>
<td></td>
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<td>• Intelligent Performance Management</td>
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<tr>
<td><strong>Narrative Reporting</strong></td>
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<td>Disclosure Management</td>
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Additionally, Data Management, which enables you to integrate data from source systems, is included with EPM Standard Cloud Service. Clients and command line tools, such as Oracle Smart View for Office and EPM Automate, are also included.

An EPM Standard Cloud Service instance allows you to deploy and use one of the supported business processes. To deploy another business process, you must request another EPM Standard Cloud Service subscription or remove the current business process.

In the EPM Standard Cloud Service, you deploy one of the following business processes.

**Planning**

The Planning business process delivers instant value and greater productivity for business planners, analysts, modelers, and decision-makers across all lines of business of an enterprise.

Planning is available with:

- Capital
- Financials
- Projects
- Workforce
- Strategic Modeling

With the exception of Strategic Modeling, these are available with preseeded configurable content including dimensions, models, forms, rules, dashboards, infolets, and reports. Strategic Modeling is available with standard and industry templates that can be leveraged to create a customized scenario models with flexible blended scenario business cases.
The Planning business process available in the EPM Standard Cloud Service does not support the following:

- Custom Planning, which allows a high degree of application customization to support business requirements
- Free Form Planning, which enables you to deploy Planning applications with no dimension requirements and also create applications using Essbase outline files
- Use of the Groovy scripting language to create or customize business rules

See Overview of Planning (Planning and Budgeting Cloud).

Account Reconciliation

The Account Reconciliation business process enables you to automate the validation of financial accounts by checking the accuracy of account balances.

This business process does not include the Transaction Matching module, which automates the process of reconciling high volume or labor intensive reconciliations and integrating results into the tracking features within Reconciliation Compliance.

See Overview of Account Reconciliation.

Financial Consolidation and Close

The Financial Consolidation and Close business process supports consolidation and close process tasks with default, prebuilt calculations; you cannot create custom calculations.

The Financial Consolidation and Close business process available in the EPM Standard Cloud Service does not support the following:

- Custom consolidation calculations and complex ownership structures
- Automation of consolidation and close tasks
- Intelligent process automation by integrating Task Manager with other services

See Overview of Financial Consolidation and Close.

Narrative Reporting

The Narrative Reporting business process, previously known as Oracle Enterprise Performance Reporting, provides a secure, process-driven approach for defining, authoring, reviewing, and publishing financial and management report packages.

The Narrative Reporting business process available in the EPM Standard Cloud Service does not support Disclosure Management.

See Overview of Narrative Reporting.

Business Processes not Available in the EPM Standard Cloud Service

The following business processes are available in the EPM Enterprise Cloud Service only:

- Profitability and Cost Management
- Tax Reporting
- Enterprise Data Management
EPM Enterprise Cloud Service

The EPM Enterprise Cloud Service comprises the full suite of Oracle Enterprise Performance Management Cloud business processes supporting a comprehensive array of activities spanning planning and budgeting, consolidation and close, account reconciliation, profitability and cost management, tax reporting, enterprise data management, and narrative reporting.

The following image presents an overview of the business processes and modules available in the EPM Enterprise Cloud Service:

- **Planning**
  - Custom Planning
  - Module-based Planning (Capital, Financials, Projects, Workforce, Strategic Modeling)
  - Free Form Planning
  - Hybrid BSO Cubes and ASO Reporting Cubes
  - Groovy support for customizing business rules

- **Account Reconciliation**
  - Includes Transaction Matching

- **Financial Consolidation and Close**
  - Default and Custom Consolidation Calculations
  - Support for Complex Structures
  - Integration of Close Manager with Other Oracle Products

- **Narrative Reporting**
  - Includes Disclosure Management

- **Enterprise Data Management Cloud** (with maximum 5000 hosted records)

- **Profitability and Cost Management**

- **Tax Reporting**

An EPM Enterprise Cloud Service instance allows you to deploy and use one of the supported business processes. To deploy another business process, you must request another EPM Enterprise Cloud Service instance or remove the current business process. The business processes that you deploy share the same identity domain to facilitate user management and assigning of roles. Access to resources belonging to a business process is individually controlled for each business process.

The EPM Enterprise Cloud Service allows you to deploy the following business processes:

**Planning**

EPM Enterprise Cloud Service supports custom Planning, module-based Planning, and Free Form planning to deliver instant value and greater productivity for business
planners, analysts, modelers, and decision-makers across all lines of business of an enterprise.

Custom Planning facilitates creation of a streamlined process-driven custom solution. Module-based Planning comes bundled with pre-packaged Capital, Financials, Projects, Strategic Modeling, and Workforce modules.

Free Form Planning helps you to create an unrestricted free form dimension solution using an Essbase outline file. Additionally, EPM Enterprise Cloud Service supports the use of the Groovy scripting language to customize business rules in the Planning business process.

See Overview of Planning (Planning and Budgeting Cloud).

**Account Reconciliation**

You use the Account Reconciliation business process with transaction matching support to automate the process of validating your company's financial accounts by checking the account balances for accuracy. Transaction matching helps automate the process of reconciling high volume or labor intensive reconciliations and integrating results into the tracking features within reconciliation compliance.

Features such as reconciliations, including auto reconciliations, variance analysis, alerts and exception management, and auto-matching of transactions are available in the EPM Enterprise Cloud Service.

See Overview of Account Reconciliation.

**Financial Consolidation and Close**

The Financial Consolidation and Close business process supports consolidation and close process tasks with default, prebuilt calculations. You can create custom calculations and complex ownership structures and automate consolidation and close tasks.

Financial Consolidation and Close comes bundled with Supplemental Data Manager and Close Manager modules. Supplemental Data Manager helps create and manage data set definitions, input templates, data collection, and value linking.

Financial Consolidation and Close also supports the integration of Close Manager with other services.

See Overview of Financial Consolidation and Close.

**Narrative Reporting**

The Narrative Reporting business process with Disclosure Management provides a secure, process-driven approach for defining, authoring, reviewing, and publishing financial and management report packages.

See Overview of Narrative Reporting.

**Enterprise Data Management**

The Enterprise Data Management business process helps you manage business viewpoints, govern changes across them, share and map data sets to accelerate deployment, and build an authoritative system of reference.

See Overview of Oracle Enterprise Data Management Cloud.
Profitability and Cost Management

The Profitability and Cost Management business process helps you manage the cost and revenue allocations that are necessary to compute profitability for a business segment, such as a product, customer, region, or branch.

See Overview of Profitability and Cost Management.

Tax Reporting

The Tax Reporting business process calculates your company’s global tax provision, effective tax rate, and deferred tax for tax provisioning purposes in accordance with the standards for accounting for income taxes under GAAP and IFRS.

See Overview of Tax Reporting.

EPM Standard Cloud Service Landing Page

The landing page is your starting point for creating a business process and for viewing overview video tours to help you get started.

Each subscription to the EPM Standard Cloud Service allows you to create one business process.

About Making Selections to Create a Business Process

The EPM Standard Cloud Service landing page presents the business processes that you can create.

Note:

After you initiate the creation of a business process, you cannot return to the landing page. If wish to return to the landing page to create a different business process, you must first reset your environment to its original state. See Switching to a Different Business Process.

Planning and Financial Consolidation and Close

You have two options to create a business process:
• Choosing your own settings to create the business process
• Using an existing snapshot to create the business process

These options are displayed on a business process-specific landing page similar to the following illustration:

![Create a new application and Migrate options](image)

**Account Reconciliation and Narrative Reporting**

After you click **SELECT**, a message indicates that an initial preconfiguration of the environment will take approximately 20 minutes. Click **OK** to initiate the preconfiguration process. The environment is not available while the configuration is in progress.

**Creating a Planning Business Process**

On the landing page, click **SELECT** under **Planning** to view available options for creating a Planning business process.

**Note:**

You can have only one custom input cube and one reporting cube in the business process.

• **Create a new application:** Click **START** to create a Module-based Planning business process. See "Setting Up Your Application" in *Administering Planning Modules*.

• **Migrate:** click **MIGRATE** to import a Standard Planning business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

See these topics in *Administering Migration for Oracle Enterprise Performance Management Cloud*:

– Backing up Artifacts and Application
– Uploading Archives to the Service
– Importing Artifacts and Application from a Snapshot
Creating a Financial Consolidation and Close Business Process

On the landing page, click SELECT under Financial Consolidation and Close to view available options for creating a Financial Consolidation and Close business process.

• **Create a new application**: Click START to create a business process.

  The Financial Consolidation and Close business process is a set of related dimensions and members designed to meet a set of consolidation and close process needs. A business process has its own accounts, entities, scenarios, and other data elements. See "Creating Financial Consolidation and Close Application" in Administering Financial Consolidation and Close.

• **Migrate**: Click MIGRATE to import a business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

  See these topics in Administering Migration for Oracle Enterprise Performance Management Cloud:
  - Backing up Artifacts and Application
  - Uploading Archives to the Service
  - Importing Artifacts and Application from a Snapshot

Creating an Account Reconciliation Business Process

After you click SELECT under Account Reconciliation to configure your environment for the Account Reconciliation business process, a message indicates that an initial preconfiguration of the environment will take approximately 20 minutes. Click OK to initiate the preconfiguration process. The environment is not available while the configuration is in progress.

After the preconfiguration is complete, use these steps to create an account reconciliation business process:

1. Sign in to the environment as a Service Administrator. See Accessing EPM Cloud.
2. Select an option to create the business process.

   • **Create a new application**

     - Click START to create a blank business process, which does not contain artifacts or data. See "Creating a New Application" in Administering Account Reconciliation.


   • **Migrate**: Click MIGRATE to import a business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

  See these topics in Administering Migration for Oracle Enterprise Performance Management Cloud:
  - Backing up Artifacts and Application
  - Uploading Archives to the Service
Importing Artifacts and Application from a Snapshot

Creating a Narrative Reporting Business Process

On the landing page, click **SELECT** under **Narrative Reporting** to create a Narrative Reporting business process. EPM Standard Cloud Service requires approximately 20 minutes to configure your environment for the business process. Click **OK** to initiate the configuration process. The environment is not available while the configuration is in progress.

After the configuration is complete, use these steps to install samples or to design reports:

1. Sign in to the environment as a Service Administrator. See **Accessing EPM Cloud**.
2. Complete a step:
   - Install samples to familiarize yourself with Narrative Reporting functionality. See “Installing Samples” in **Creating and Managing Report Packages for Narrative Reporting**.
   - Create reports and report packages. See these information sources:
     - Designing Reports in **Designing with Management Reporting for Oracle Enterprise Performance Management Cloud**
     - **Creating Report Packages** in **Creating and Managing Report Packages for Narrative Reporting**

EPM Enterprise Cloud Service Landing Page

The landing page is your starting point for creating an EPM business process and for viewing overview videos that help you get started.
Each subscription to the EPM Enterprise Cloud Service allows you to create one business process. Click **SELECT** under the business process description to see available options.

**About Making Selections to Create a Business Process**

The EPM Enterprise Cloud Service landing page presents the business processes that you can create.

---

**Note:**

After you initiate the creation of a business process, you cannot return to the landing page. If wish to return to the landing page to create a different business process, you must first reset your environment to its original state. See **Switching to a Different Business Process**.

---

**Planning and Tax Reporting**

You have three options to create a business process:

- Create a sample application
- Create a new application
- Use an existing snapshot to create an application

These options are displayed on a business process-specific landing page similar to the following illustration:

---

**Financial Consolidation and Close**

You have two options to create an business process:

- Creating a new application
- Using an existing snapshot to create an application

**Account Reconciliation, Profitability and Cost Management, Enterprise Data Management, and Narrative Reporting**

After you click **SELECT**, a message indicates that an initial preconfiguration of the environment will take approximately 20 minutes. Click **OK** to initiate the preconfiguration process. The environment is not available while the configuration is in progress.
Creating a Planning Business Process

On the landing page, click **SELECT** under **Planning** to view available options for creating a Planning business process.

- **Create a sample application**: Click **CREATE** to automatically create the Vision sample application, which is a valuable tool to explore the planning and budgeting process. See "Creating a Sample Application" in *Administering Planning*.

- **Create a new application**: Click **START** to create a Planning business process. You can create a Custom, Free Form, or Modules business process to meet your business needs.
  - **Custom**: Supports most planning and budgeting requirements through complex business logic, such as business rules and allocations. Select this option to create a business process if your requirements would necessitate a high degree of application customization. See "Creating a Standard Application" in *Administering Planning*.

  **Note:**
  
  You can create a single currency or multicurrency application. Multicurrency custom applications are created using simplified multicurrency.

- **Free Form**: Supports Free Form Planning, and does not require Currency, Entity, Scenario, and Version dimensions and their member hierarchies. This business process is created using an Essbase outline file (OTL) from an on-premises deployment to import dimensions and members. The outline file name can have a maximum of eight characters because the file name is used to name the cube of the free form business process. See Creating a Free Form Application.

  For information on loading data into a Free Form business process, see "Loading Data to a Free Form Application" in *Administering Data Integration for Oracle Enterprise Performance Management Cloud*.

- **Module**: Sets up the cubes required for Capital, Financials, Projects, Workforce and Strategic Modeling. Choose this option to create a business process that supports best practices and industry standard functionality. See "Creating an Application" in *Administering Planning for Oracle Enterprise Planning and Budgeting Cloud*.

  **Note:**
  
  You can create a single currency or multicurrency application. Multicurrency applications are created using simplified multicurrency.

- **Migrate**: Click **MIGRATE** to create a custom Planning business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.
See these topics in *Administering Migration for Oracle Enterprise Performance Management Cloud*:

- Backing up Artifacts and Application
- Uploading Archives to the Service
- Importing Artifacts and Application from a Snapshot

**Creating a Financial Consolidation and Close Business Process**

On the landing page, click **SELECT** under **Financial Consolidation and Close** to view these options for creating a Financial Consolidation and Close business process.

- **Create a new application**: Click **START** to create a business process.
  
  See "Creating a Financial Consolidation and Close Application" in *Administering Financial Consolidation and Close*.

- **Migrate**: Click **MIGRATE** to import a business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

See these topics in *Administering Migration for Oracle Enterprise Performance Management Cloud*:

- Backing up Artifacts and Application
- Uploading Archives to the Service
- Importing Artifacts and Application from a Snapshot

**Creating an Account Reconciliation Business Process**

On the landing page, click **SELECT** under **Account Reconciliation** to configure your environment for the Account Reconciliation business process. EPM Enterprise Cloud Service displays a message indicating that approximately 20 minutes is required to preconfigure the environment. Click **OK** to initiate the configuration process. The environment is not available while the configuration is in progress.

After the preconfiguration is complete, use these steps to create the Account Reconciliation business process:

1. Sign in to your EPM Enterprise Cloud Service environment as a Service Administrator. See Accessing EPM Cloud.

2. Select an option to create the business process.

   - **Create a sample application**: Click **CREATE** to create a sample business process with data and artifacts. You can use this ready-to-use business process to explore Account Reconciliation capabilities and performance. It can also be used as a template to model your own business process. See "Creating a Sample Application" in *Administering Account Reconciliation*.

   - **Create a new application**:
     
     - Click **START** to create a blank business process which does not contain artifacts or data. See "Creating a New Application" in *Administering Account Reconciliation*.
     
     - Configure Reconciliation Compliance or Transaction Matching.
To configure Reconciliation, see Setting Up Reconciliation Compliance in Setting Up and Configuring Account Reconciliation.

To Configure Transaction Matching, see Setting Up Transaction Matching in Setting Up and Configuring Account Reconciliation.

- **Migrate**: Click MIGRATE to import a business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

See these topics in Administering Migration for Oracle Enterprise Performance Management Cloud:

- Backing up Artifacts and Application
- Uploading Archives to the Service
- Importing Artifacts and Application from a Snapshot

**Creating a Profitability and Cost Management Business Process**

On the landing page, click SELECT under Profitability and Cost Management to preconfigure your environment. This process takes approximately 20 minutes. Click OK to initiate the preconfiguration process. The environment is not available during the preconfiguration process.

After the preconfiguration is complete, use these steps to create the Profitability and Cost Management business process:

1. Sign in to your EPM Enterprise Cloud Service environment as a Service Administrator. See Accessing EPM Cloud.
2. Select an option to create the business process.
   - **Create a sample application**: Click CREATE to create a sample business process with data and artifacts. You can use this ready-to-use business process for testing and exploration of functional areas. You can also use it as a template to model your own business process. See "Accessing the Sample Application" in Administering Oracle Profitability and Cost Management Cloud.
   - **Create a new application**: Click START to create a container business process. See "Creating Applications with Dimensions from Flat Files" in Administering Oracle Profitability and Cost Management Cloud.
   - **Migrate**: Click MIGRATE to import a business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

See “Building Applications by Importing Template Files” and “Creating and Migrating Profitability and Cost Management Applications” in Administering Oracle Profitability and Cost Management Cloud, and these topics in Administering Migration for Oracle Enterprise Performance Management Cloud:

- Backing up Artifacts and Application
- Uploading Archives to the Service
- Importing Artifacts and Application from a Snapshot
Creating a Tax Reporting Business Process

On the landing page, click SELECT under Tax Reporting to view available options for creating a Tax Reporting business process.

- **Create a sample application**: Click CREATE to create a business process with sample metadata, data, and related artifacts, enabling you to immediately try different operations, perform calculations, or enter data. See "Creating a Sample Application" in Getting Started with Tax Reporting.

- **Create a new application**: Click START to create a Tax Reporting business process. During creation of the application, you define the number of years and the Main Currency, and indicate whether the application will use multiple currencies. You can then load your metadata and data, either manually or using a flat file. See these topics in Getting Started with Tax Reporting:
  - Prerequisites for Creating an Application
  - Workflow for Creating an Application
  - Creating a New Application
  - Enabling Application Features

- **Migrate**: Click MIGRATE to import a business process from a snapshot that you previously uploaded to the environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility.

  See these topics in Administering Migration for Oracle Enterprise Performance Management Cloud:
  - Backing up Artifacts and Application
  - Uploading Archives to the Service
  - Importing Artifacts and Application from a Snapshot

Creating a Narrative Reporting Business Process

On the landing page, click SELECT under Narrative Reporting to create a Narrative Reporting business process. EPM Enterprise Cloud Service displays a message indicating that approximately 20 minutes are required to configure Narrative Reporting. Click OK to initiate the configuration process. The environment is not available while the configuration is in progress.

After the configuration is complete, use these steps to install samples or to design reports:

1. Sign in to the environment as a Service Administrator. See Accessing EPM Cloud.
2. Complete a step:
   - Install samples to familiarize yourself with Narrative Reporting functionality. See "Installing Samples" in Creating and Managing Report Packages for Narrative Reporting.
   - Create reports and report packages. See these information sources:
     - Designing Reports in Designing with Management Reporting for Oracle Enterprise Performance Management Cloud
Creating an Enterprise Data Management Business Process

To initiate the creation of business process, on the landing page, click SELECT under Enterprise Data Management. This process takes approximately 20 minutes. The environment is not accessible while the business process creation is in process.

After the preconfiguration is complete, use these steps:

1. Sign in to your EPM Enterprise Cloud Service environment as a Service Administrator. See Accessing EPM Cloud.
2. Select an option to create the business process.
   - **Create a sample application**: Click CREATE to create a sample business process with data and artifacts. You can use this ready-to-use business process for testing, exploration of functional areas and tutorials. Tutorials provide instructions with sequenced videos and documentation to help you learn a topic. See Tutorials on the Help Center.
   - **Create a new application**: Click START then register your application. See Understanding Registering Applications
   - **Migrate**: Click MIGRATE to import a snapshot that you previously used on your environment. See What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service? for prerequisites and snapshot compatibility, and these topics in Administering Migration for Oracle Enterprise Performance Management Cloud:
     - Backing up Artifacts and Application
     - Uploading Archives to the Service
     - Importing Artifacts and Application from a Snapshot

What Applications Can I Migrate to EPM Standard Cloud Service and EPM Enterprise Cloud Service?

The following business processes provide an option to migrate a snapshot to create an application in EPM Standard Cloud Service and EPM Enterprise Cloud Service environments.

- Planning
- Financial Consolidation and Close
- Account Reconciliation
- Profitability and Cost Management
- Tax Reporting
- Enterprise Data Management
Note:

Tax Reporting, Enterprise Data Management, and Profitability and Cost Management business processes are not available in EPM Standard Cloud Service.

These migration scenarios are always supported:

- You can migrate a snapshot from a business process that you created in EPM Standard Cloud Service or EPM Enterprise Cloud Service. For example, after creating a snapshot in an EPM Standard Cloud Service you recreated the service, but want to recreate the application. In this scenario, you can create the application from the snapshot.
- You can migrate a snapshot created in a test environment to a production environment, and conversely.

Migrating Planning Snapshots

- You can migrate a snapshot from the current Planning and Budgeting Cloud release into EPM Enterprise Cloud Service to create a custom application.
- You can migrate a snapshot from the current Planning Modules release into EPM Enterprise Cloud Service to create module-based applications.

Note:

Attempts to import Groovy-based business rules and templates into a business process that does not support Groovy will fail. For example, EPM Standard Cloud Service planning and financial consolidation and close business processes do not support Groovy-based business rules. Import of business rules and templates exported from an application that supports Groovy, for example, from an EPM Enterprise Cloud Service Planning business process, into EPM Standard Cloud Service Planning business process will fail.

Migrating Financial Consolidation and Close Snapshots

- You cannot migrate a snapshot from the current release of Financial Consolidation and Close into EPM Standard Cloud Service or EPM Enterprise Cloud Service to create a Financial Consolidation and Close application.
- If you were pilot testing Financial Consolidation and Close applications with extended dimension features (hybrid cubes), you can migrate snapshots from such an environment to EPM Enterprise Cloud Service Financial Consolidation and Close business process.

Migrating Account Reconciliation Snapshots

You can migrate a snapshot from the current release of Account Reconciliation into EPM Enterprise Cloud Service to create an Account Reconciliation business process.
Migrating Profitability and Cost Management Snapshots

You can migrate a snapshot from the current release of Profitability and Cost Management into EPM Enterprise Cloud Service to create a Profitability and Cost Management business process. You can also migrate on-premises Release 11.1.2.4.x Profitability and Cost Management snapshots to EPM Enterprise Cloud Service. See "Migrate Profitability and Cost Management to Oracle Profitability and Cost Management Cloud" in *Administering Migration for Oracle Enterprise Performance Management Cloud*.

Migrating Tax Reporting Snapshots

You cannot directly migrate a snapshot from the current release of Tax Reporting (for example, release 19.06) into the next release of EPM Enterprise Cloud Service (release 19.07) to create a Tax Reporting business process.

To work around this issue, first upgrade your existing application to the next release of Tax Reporting (for example, from release 19.06 to 19.07), and then migrate the updated Tax Reporting snapshot (release 19.07) to the same release of EPM Enterprise Cloud Service Tax Reporting business process.

Migrating Enterprise Data Management Snapshots

You can migrate a snapshot from the current release of Enterprise Data Management Cloud into EPM Enterprise Cloud Service to create an Enterprise Data Management business process.

About Essbase in EPM Cloud

Essbase Version that Supports Hybrid Cubes

EPM Enterprise Cloud Service and EPM Standard Cloud Service subscriptions are deployed with an Essbase version that supports Hybrid Block Storage Option (BSO) cubes.

To make parent members of sparse and dense dimension dynamic, the Hybrid BSO cubes support some Aggregate Storage Option (ASO) capabilities in addition to BSO capabilities. For example, all cubes can have dynamic aggregations for calculations. Hybrid cubes provide many benefits including smaller database and application size, better cube refresh performance, faster import and export of data, improved performance of business rules, and faster daily maintenance of the business process. To ensure optimal performance, warnings and error messages are displayed during cube refresh if the business process does not conform to best practices for the following parameters:

- Block size
- Number of blocks
- Number of dense dimensions
- Maximum number of child members under any dynamic parent
- Maximum number of child members under any store parent
- Parents with one child member for level 1 and above of dimensions
• Level 1 and above not set to dynamic calculation and label only in dense dimensions
• Usage of dynamic cross-references

These parameters of enabled modules are monitored:
• Number of new rules added to a module
• Number of rules that can be modified
• Number of new forms added to a module
• Number of forms that can be modified

If you have EPM Enterprise Cloud Service and EPM Standard Cloud Service, Financial Consolidation and Close, Custom Planning, Planning Modules other than Workforce, and Free Form applications, by default, are created to use Hybrid BSO cubes.

Note:
Oracle Strategic Workforce Planning Cloud does not use Hybrid cubes.

Essbase Version that Does not Support Hybrid Cubes

Legacy Oracle Enterprise Performance Management Cloud subscriptions that were activated before the introduction of EPM Enterprise Cloud Service and EPM Standard Cloud Service are deployed with an Essbase version that does not support Hybrid cubes. These include legacy environments other than the following that were upgraded based on specific service requests:

Note:
While the default deployments of these services do not support Hybrid cubes, you can upgrade Essbase to support Hybrid cubes.

• Oracle Enterprise Planning and Budgeting Cloud subscriptions
• Oracle Financial Consolidation and Close Cloud subscriptions
• Planning and Budgeting Cloud Service Plus One option license

If you purchased EPM Cloud before June 4, 2019, you may have a license (Planning and Budgeting Cloud Service Plus One Business Process option) that allowed you to deploy Enterprise Planning and Budgeting Cloud business processes (Financials, Strategic Modeling, Workforce, Projects, or Capital) in a Planning and Budgeting Cloud Service environment.

Can I Upgrade to the Hybrid-enabled Essbase?

If your legacy subscription to the following is not deployed to use Hybrid-enabled Essbase, you can upgrade your Essbase deployment.

• Oracle Enterprise Planning and Budgeting Cloud subscriptions
• Oracle Financial Consolidation and Close Cloud subscriptions
• Planning and Budgeting Cloud Service Plus One option license

Upgrading the Essbase version is a self-service operation using the `recreate` EPM Automate command. See EPM Automate Commands in Working with EPM Automate for Oracle Enterprise Performance Management Cloud.

What are the Implications if I Upgrade to Hybrid-enabled Essbase?

The following factors must be considered before upgrading to Hybrid-enabled Essbase:

• You will have to manually recreate your application after the environment is upgraded.
  
  You cannot import snapshots from an environment with an Essbase version that does not support Hybrid cubes to an environment that uses Hybrid-enabled Essbase, and conversely. Attempts to import snapshots will fail.

• Upgrading your environments to use Hybrid-enabled Essbase does not mean that your applications will automatically use Hybrid cubes. You must choose to use hybrid cubes while creating your application.

• Planning applications that use Hybrid-enabled Essbase do not permit incremental data loading using Migration. As a result, you cannot use the daily maintenance snapshot for incremental import of data; you must import the full snapshot.

• Snapshots of applications that use Hybrid-enabled Essbase can be migrated only to other environments that have Hybrid-enabled Essbase.

Steps for Converting a Legacy Planning Application to Use Hybrid BSO Cubes

If you have a legacy Oracle Enterprise Planning and Budgeting Cloud subscription or a Planning and Budgeting Cloud Service Plus One option license, you can convert your Planning application to use Hybrid BSO cubes. You should first convert the application in the Test environment and validate that it works properly before attempting to convert your production application.

To convert a legacy Planning application to use Hybrid BSO cubes:

1. Convert the Planning application in your test environment to a Planning Modules application.
   
   See Converting a Standard or Reporting Application to an Enterprise Application in Administering Planning Modules.

2. Perform a database refresh. Ensure that the process runs successfully without errors.

3. Create a full backup snapshot of the application in the Test environment and download the backup to a local computer.

4. Using EPM Automate, upgrade your environment to use Hybrid-enabled Essbase.
   
   See Enabling Hybrid-Enabled Essbase for Legacy Subscriptions for instructions.

5. Using the `uploadFile` EPM Automate command or Migration, upload the backup snapshot (see Step 2) to the environment.

6. Access the environment as a Service Administrator and import the backup snapshot to create your application. See Importing Artifacts and Application from a
Snapshot in *Administering Migration for Oracle Enterprise Performance Management Cloud* for detailed instructions.

7. Enable Hybrid.
   
a. From the Home page, select **Application** and then **Overview**.

b. From **Actions**, select **Enable Hybrid Mode**. EPM Cloud validates your application to ensure that it complies with the best practices for applications that use Hybrid cubes. These best practices are listed at the beginning of this section.

c. Fine-tune your applications based on the validation recommendations.

d. **Optional**: Redesign and streamline your application to make best use of Hybrid BSO capabilities. Steps to streamline your application includes making members in sparse dimensions dynamic and removing intermediate rollups from rules.

8. Test your application to verify that it works as designed.

9. Repeat the preceding steps to convert the application in the Production environment.

**How Do I Know if an Application uses Hybrid Cubes?**

Overview tab of your application indicates whether it is set up to use Hybrid cubes. You can open this tab from the Home page by selecting **Application** and then **Overview**.

As a general guideline, Financial Consolidation and Close, Custom Planing, Planing Modules other than Workforce, and Free Form applications that you create in EPM Enterprise Cloud Service and EPM Standard Cloud Service, by default, use Hybrid BSO cubes.

**New EPM Cloud URL**

Customers provisioned to EPM Standard Cloud Service and EPM Enterprise Cloud Service instances will use URLs similar to the following to access their environments:

**Production environment URL**: https://epm-

---

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Test environment URL: https://epm-test-
idDomain.epm.dataCenter.oraclecloud.com/epmcloud

For example, for Oracle Enterprise Performance Management Cloud environments provisioned with identity domain exampleDoM in exampleDC data center, the URLs may be as follows:

Production environment: https://epm-
exampleDoM.epm.exampleDC.oraclecloud.com/epmcloud

Test environment: https://epm-test-
exampleDoM.epm.exampleDC.oraclecloud.com/epmcloud

A Service Administrator is responsible for providing the unique URLs to users.

This is a change from previous versions of EPM Cloud where each business process used a separate context to access environments. See Sample EPM Cloud URLs.

Creating a Free Form Application

Free Form applications utilize an open dimensional cube construct allowing you to create cubes with any dimension combination you need in your BSO or ASO cube.

The Free Form application allows you to create an application with the dimensions of your choice without being constrained by the limitations imposed by standard applications. With Free Form applications, you can model and build your own Hybrid BSO or ASO cubes while preserving the ability to leverage Planning functionalities. Free Form applications can be accessed using Oracle Smart View for Office or Oracle Enterprise Performance Management Cloud screens; they support Groovy script for custom functions, and business rules for calculations.

Free Form Application Sources

You can build Free Form applications using an Outline file or snapshot from an on-premises release 11.1.2.400 single cube Essbase application to create a Free Form application.

When you use an outline (OTL) file or Essbase application snapshot as the source for an application, Account, Period (time), and Entity (country) dimensions are created and mapped automatically. Additionally, Version and Scenario dimensions of the Essbase application are created as custom dimensions. As a result, out of the box Workflow functionality is not supported in Free Form applications.

Service Administrators build a Free Form application using these sources:

• An Outline file from on-premises release 11.1.2.400 single cube Essbase application
  
  You may use an outline (OTL) file from an on-premises release 11.1.2.400 single cubed Essbase application to create the structure of the Free Form application.

  Because the OTL file name is assigned to the cube created for the Free Form application, the file name must be eight characters or less. Longer file names will cause the process to fail.

  Generally, the OTL file is available in the EssbaseServer/essbaseserver1/app/<app_Name> directory within your on-premises Essbase deployment.
Because the OTL file does not contain application data, you must extract Essbase data to a file. Use MaxL, Essbase Studio, or another tool to export data from an Essbase application. The data must be exported in an Essbase data file format.

After creating the application, import the extracted data, selecting Essbase as the source type. You can import from a locally stored data file or from a file that was uploaded to the Oracle Enterprise Performance Management Cloud inbox. For detailed instructions, see Importing Data in Administering Planning.

- An application snapshot from an on-premises release 11.1.2.400 single cube Essbase application

This option simplifies application creation by migrating an existing Essbase application snapshot (ZIP file) that was created using Lifecycle Management. This process automates dimensions loading, substitution variables creation, calculation scripts conversion as graphical rules, and data load.

Important Considerations

Note:

Do not attempt to create Free Form applications by migrating Essbase Lifecycle Management snapshots into an Oracle Enterprise Performance Management Cloud environment. Migration is supported only for snapshots created from a previous Free Form application.

- Essbase snapshots with Custom Defined Functions (CDF) and CDF references cannot be used to create Free Form applications.

- Make sure that the OTL file or Essbase application snapshot that you are using does not contain objects with system restricted names; for example, a member named FY02 in the Year dimension. You must rename or remove such restricted names before generating the OTL file or snapshot that you plan to use to create the application. See Naming Restrictions in Administering Planning.

- If you plan to use an OTL file or snapshot stored in your EPM Cloud environment as the source, upload the file before starting the application creation process.

Use the uploadFile EPM Automate command or Migration to upload the OTL file or snapshot to an EPM Cloud environment.

- Imported data may not be editable in Free Form applications. At times, the data is set as Read-only.

Using an OTL File or Snapshot to Create an Application

To create a Free Form application:

1. On the EPM Enterprise Cloud Service landing page, click SELECT under Planing.
2. On the Planning landing page, click START under Create a new application.
3. Enter a Name and Description for the application.
4. From Application Type, select Free Form.
5. Select the location of the source OTL file or the Essbase Lifecycle Management snapshot:
   • Select **Local** to access the source OTL file or snapshot from the computer from which you are currently accessing Oracle Enterprise Performance Management Cloud.
     
     Click **Browse** and then select the source OTL file or snapshot.
   
   • Select **Inbox** to access the source OTL file or snapshot from your EPM Cloud environment.
     
     From **Select One**, select the source OTL file or snapshot.

6. Click **Next**.

7. Review application information and then click **Create**.

When application creation is complete, EPM Cloud Home page is displayed.

8. Make sure that errors were not reported during application creation.
   
   • Open the Jobs console by clicking **Application**, and then **Jobs**
   
   • Verify that the **Create Database** and **Process Outline** activities finished without errors. Correct any reported errors.

9. **Optional**: If you created the application using an OTL file as the source, import application data. See Importing Data in *Administering Planning*.

If you used a snapshot as the application source, the application creation process automatically imports data.

10. Create application users in identity domain and assign predefined roles as needed. See Manage Users and Roles in *Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*.

11. Set up access permissions as needed. See Setting Up Access Permissions in *Administering Planning*.

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**Switching to a Different Business Process**

Oracle now allows Service Administrators to restore an environment to its original state, ready for you to create a new business process. The ability to restore cloud environments to their original state is especially useful if you are evaluating the various EPM Cloud business processes. The process of resetting a cloud environment and reverting it to its original state, known as re-creating the environment, must be performed separately for the test and production environments within the Oracle Enterprise Performance Management Cloud instance.

**What is Affected When You Recreate an Environment**

The process of recreating your environment deletes the current application, including all user-defined (custom) artifacts and data from the environment. If you want to preserve the data and artifacts in the current environment, you must perform a complete backup of the application before you re-create an environment.

The environment is not available for approximately 15 minutes, while the re-create process is in progress.
After re-creating the environment, you can create the same business process or a different one. You can also import a business process from a snapshot using Migration or EPM Automate.

**What is not Affected When You Re-create an Environment**

These are not affected if you re-create an environment:

- Snapshot created during the last maintenance of the environment. EPM Cloud always retains the maintenance snapshot
- Users that you created in the identity domain that serves the environment
- Users to role assignments that you completed in the identity domain

To re-create an environment:

1. As a Service Administrator, sign into an environment that has a deployed business process. See **Accessing EPM Cloud**.
2. On the Home page, access **Settings and Actions** by clicking your user name at the top right corner of the screen.
3. Select **Recreate Service**.
4. Click **OK** to initiate the re-create process and to confirm that you are aware of the consequences of re-creating the environment.

**Using the EPM Cloud Features Tool to View the Features Released Each Month**

Use the EPM Cloud Features tool to view a list of features released each month for your Oracle Enterprise Performance Management Cloud business process. You can perform text searches and click links to read more about each feature in the What's New document and the EPM Cloud guides.

**Product Name and Terminology Changes**

EPM Standard Cloud Service and EPM Enterprise Cloud Service has introduced some product name and terminology changes, which may not be reflected in the user assistance collaterals, such as guides, learning paths, videos, screen shots, and online help.

<table>
<thead>
<tr>
<th>Old Terminology</th>
<th>New Terminology</th>
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<td>Planning and Budgeting Cloud</td>
<td>Planning</td>
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<tr>
<td>Enterprise Planning and Budgeting Cloud</td>
<td>Planning</td>
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<td>Enterprise Planning and Budgeting Cloud business processes; for example, Workforce</td>
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<tr>
<td>Cloud Service</td>
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Understanding EPM Cloud Business Processes

Oracle Enterprise Performance Management Cloud combines Oracle’s Enterprise Performance Management applications with the innovation and simplicity of the cloud to enable companies of any size to drive predictable performance, report with confidence, and connect the entire organization.

In This Section:

• Overview of EPM Cloud
  – Overview of Planning (Planning and Budgeting Cloud)
  – Overview of Planning Modules
  – Overview of Financial Consolidation and Close
  – Overview of Tax Reporting
  – Overview of Profitability and Cost Management
  – Overview of Account Reconciliation
  – Overview of Oracle Enterprise Data Management Cloud
  – Overview of Narrative Reporting

• Overview of Strategic Workforce Planning

• Overview of Oracle Sales Planning Cloud

• Setting Up Browsers for EPM Cloud
  – Supported Browsers
  – Browsers on Mobile Devices
  – Minimum Screen Resolution

• Accessing EPM Cloud
  – Authenticating Using Oracle Cloud Credentials
  – Authenticating Using Single Sign-On Credentials

• Understanding the Home Page

• Turning on Accessibility Mode

• Sample EPM Cloud URLs

• Information Sources
  – Oracle Cloud Help Center
  – Oracle Learning Library

• Understanding EPM Cloud Localization
Overview of EPM Cloud

Oracle Enterprise Performance Management Cloud offers the following services:

• Planning
• Planning Modules
• Financial Consolidation and Close
• Tax Reporting
• Profitability and Cost Management
• Account Reconciliation
• Oracle Enterprise Data Management Cloud
• Narrative Reporting

About Services and Environments

You buy a service to work with EPM Cloud. Each service entitles you to two environments—a test environment and a production environment.

Overview of Planning (Planning and Budgeting Cloud)

Planning is a subscription-based planning and budgeting solution built for and deployed on Oracle Cloud, using a proven, flexible planning and reporting best-in-class architecture. It delivers instant value and greater productivity for business planners, analysts, modelers, and decision-makers across all lines of business of an enterprise. Users interact through a Web 2.0 or Microsoft Office interface to model, plan, and report. The service, built to scale and perform, uses industry-standard Oracle Cloud infrastructure.

Proven Platform and Technology

The service helps companies plan their cloud strategy efficiently by avoiding data and business process fragmentation. It is built to optimize Oracle Cloud resources. The service’s functional architecture is based on the proven Planning platform, which helps solve simple to complex planning use cases across numerous industries. In Oracle Cloud, enterprise-wide user profiles can be maintained in one place so that they can be reused across all Oracle Cloud Services to which an organization subscribes.

Best-in-Class Functionality

The service offers an intuitive Web 2.0 and Microsoft Office interface for driver-based modeling, rolling forecasts, and management reporting for time-sensitive and goal-oriented planning activities. You can easily create and share on-the-fly models and validate them against sophisticated statistical predictive capabilities, thus generating unbiased, accurate, and agile plans. This service is built for real-time collaborative planning and variance analysis across the enterprise, using powerful annotations, commentary, document attachments, tasks, workflow, and reporting capabilities.

Scalable and Flexible

The service leverages the powerful Essbase OLAP calculation engine and a comprehensive rules framework to enable fast processing of complex calculations for
large volumes of data. Time and data intelligence built into the service provides out-of-
the-box spreading and fast on-demand aggregation capabilities. By creating and
sharing on-the-fly models, you can quickly build and collaborate using Microsoft Excel
and Web interfaces.

Enterprise Ready

The service is a one-stop cloud service to build, deploy, and manage business
planning activities for any size organization. It supports small- to large-scale
deployment, data backup and migration, plus packaged Enterprise Resource Planning
(ERP) data integration capabilities without compromising ease of use or self-service
for smaller customers. This service includes comprehensive features to raise issues,
get support, and seek product enhancements. It provides flat-file and Excel-based
import and export, and comprehensive mapping capabilities for more sophisticated
data integration use cases. You can seamlessly load and extract information, and you
can drill back to source ERP.

Rapid Deployment

The service lets you get started immediately, because it requires no initial investment.
Your subscription includes everything that you need. You don't need to license, install,
upgrade, or patch software. You don't have to buy, install, or configure hardware. You
can also leverage the deep product expertise of the worldwide Oracle Hyperion
Partner network to develop and deploy cloud-based planning applications in weeks,
using quick-start templates.

Portability

Existing Planning customers can leverage built-in migration capabilities to port their
on-premises Planning application to the service. This capability also enables
organizations to introduce or extend Planning usage across the enterprise to other
lines of businesses without additional demands on their IT resource and budgets.

Watch this video for an overview of key Planning features.

Overview of Planning Modules

Planning Modules comprise complete planning and budgeting solutions for Financials,
Workforce, Capital, and Projects. These business processes include built-in best
practice pre-defined content including forms, calculations, dashboards, drivers, and
key performance indicators (KPIs). Forms are designed to integrate with the
dashboards and reports that dynamically reflect your data, plans, and forecasts.

Watch this overview video to learn more about Planning Modules.

Financials

The Financials solution provides integrated driver-based planning for income
statement, balance sheet, and cash flow. The out-of-box tools, such as KPIs, drivers,
and accounts help you prepare reports faster. You can also use Financials to perform
expense and revenue planning.
Overview of Financial Consolidation and Close

Financial Consolidation and Close is a subscription-based consolidation and reporting solution built for and deployed on Oracle Cloud. It provides a simple and quick deployment for users who want fast implementation with no hardware and minimal IT support. It provides a user-friendly and intuitive interface along with built-in functionality for consolidation and close process tasks.

Financial Consolidation and Close provides these features:

- Simplified tablet user interface
- Native dashboarding and analysis
Overview of Tax Reporting

Tax Reporting is a comprehensive global tax provision solution for multinational companies reporting under GAAP (Generally Accepted Accounting Principles) or IFRS (International Finance Reporting Standards). The solution encompasses all stages of the corporate tax provision process, including tax automation, data collection, tax provision calculation, return-to-accrual automation, tax reporting and analysis, and Country by Country (CbCR) reporting.

Tax Reporting calculates your company’s global tax provision, effective tax rate, and deferred tax for tax provisioning purposes. The application complies with the standards for accounting for income taxes under US GAAP and IFRS.

Tax Reporting can use the same platform as your corporate close process and therefore may be directly integrated utilizing the same metadata. As one solution, consolidated pretax income can be reported by legal entity to calculate the consolidated income tax provision. When corporate accounting finalizes the period-end close and all required amounts—such as permanent and temporary differences, tax rates, and foreign exchange rates—Tax Reporting automatically calculates the current and deferred income tax provisions by legal entity and by jurisdiction.

From the provision calculation, Tax Reporting produces a journal entry and draft income tax financial statement disclosure, complete with supporting schedules. The supporting schedules provide details for the required disclosures in the income tax footnote to the financial statements, including:

- Pretax income by foreign and domestic entities
- Consolidated tax provision by current and deferred tax expense
- Consolidated and statutory effective tax rate reconciliations
- Composition of deferred tax assets, liabilities, and valuation allowance (as required)

Overview of Profitability and Cost Management

To maximize profitability, a business must be able to accurately measure, allocate, and manage costs and revenue. Profitability and Cost Management is an analytic software tool that manages the cost and revenue allocations that are necessary to compute profitability for a business segment, such as a product, customer, region, or
branch. Profitability and Cost Management enables you to use cost decomposition, consumption-based costing and scenario-playing to measure profitability for effective planning and decision support.

View this video to get an overview of Profitability and Cost Management.

Profitability and Cost Management applications are designed for use by analysts who have deep domain experience in the computation and reporting methods of management reporting, but who may not have much experience with Essbase and scripting syntax or programming languages.

Data for Profitability and Cost Management applications is housed in both multidimensional databases and relational databases.

**Overview of Account Reconciliation**

Reconciliations ensure that a company's financial accounts are validated by checking to see if the balance in the account is correct. Oracle Account Reconciliation Cloud Service makes this process simpler and faster for companies by automating the process and helping users involved in the process collaborate effectively.

Because account balances are valid at a point in time, and business conditions change, it is critical that reconciliations occur. In addition, companies face stiff penalties for failing to reconcile.

Account Reconciliation consists of two modules: Reconciliation Compliance and Transaction Matching.

**Reconciliation Compliance**

Reconciliation Compliance helps you manage account reconciliation processes, including balance sheet reconciliations, consolidation system reconciliations, and other reconciliation processes in effect.

Reconciliations can be performed at whatever level makes sense for the business. For example, you could perform some reconciliation by business unit or company code, while performing other reconciliations at the department level. An administrator can create mapping rules to assign the account balances to the reconciliations, and when balances are imported, ensure they appear in the correct reconciliation based on these rules.

The administrator sets up the reconciliation lists that contain the balances to be reconciled, as well as account descriptions, instructions, due dates, and completed dates. Email notifications are sent, reminding other users that due dates are approaching, or that reconciliations can be acted upon.

**Transaction Matching**

Transaction Matching is an integrated module of Account Reconciliation and the perfect complement to the existing Reconciliation Compliance feature set.

With Transaction Matching, companies can automate performance of high volume/labor intensive reconciliations, and seamlessly integrate those results into the tracking features within Reconciliation Compliance.

With the addition of this powerful new module, companies save additional time on the performance of reconciliations, while improving quality and reducing risk.
Overview of Oracle Enterprise Data Management Cloud

Oracle Enterprise Data Management Cloud is a modern, agile data management application that enables enterprises to manage application-specific business viewpoints, govern changes across them, share and map data sets to accelerate cloud deployment, and build an authoritative system of reference.

Note:

You can use Oracle Enterprise Data Management Cloud as a standalone service or as a business process within Oracle Enterprise Performance Management Cloud.

Work with Applications

Application creators register each connected business application to generate end user experiences called a default view. Upon registration, creators can assign others as application owners or data managers. Each view contains one or more viewpoints that are optimized to maintain each registered application dimension as a list or a hierarchy. To collaborate, application owners and view owners may then come together to tailor custom views and viewpoints (for example, by subject area or by business domain) to build change management views. Data managers may then apply changes within their purview.

Work with Views and Viewpoints

Views are end user portals into enterprise data. Browse or search viewpoints within or across views. Import dirty dimension data into viewpoints from contributing applications, validate and resolve issues to build an authoritative system of reference. Compare viewpoints side-by-side to understand differences. Align related properties visually and copy values. Create requests to share data across viewpoints. Use subscriptions to share data between viewpoints by subscribing a target viewpoint to a source viewpoint. When an update is made to the source viewpoint, a request is automatically generated to make the same change in the target viewpoint.

Manage Change with Requests

Requests represent the fundamental building block of change. Use requests to model changes to any viewpoint. Visualize all changes against the target viewpoint, validate them, analyze impact, and only then commit them. Author changes interactively or in batch from file sources. Browse request activity to audit committed changes.

Collaborative Workflows

Collaborative workflows support a submit process, approval process and address these governance challenges:

- Configure one or more approval policies at the application, dimension, hierarchy set, or node type level. The workflow orchestrates the invitation of approvers while executing approval policies concurrently to achieve high quality outcomes.
- Implement request workflows across multiple business contexts to secure approval for related changes across applications.
• Use approvals with subscription requests to simulate application dimension-level enrichment and approval stages across multiple application contexts.

• Define items within a request that are validated, approved, and committed together. This creates integrity in change management and enables change control.

Create Alternate Views and Viewpoints

Tailor custom views and viewpoints to build alternate hierarchies, access read-only reference data for comparison purposes, or work with hierarchy members in a list. Copy viewpoints to make a historical snapshot, perform a what-if scenario, or reorganize data as fit-for-purpose.

Information Model

Each viewpoint is powered by a data chain that specifies associated business objects (using node types), associated parent child relationships (using relationship sets), and associated predicates such as top nodes (using node sets) to construct each viewpoint for end use. Viewpoints are grouped together logically in views that either represent business applications or subject areas. Application views are defaulted based upon application registration.

Build Data Maps

Create new data chains to manage mapping relationships. Construct mapping viewpoint to map one or more sources to each target application dimension. Compare source to target and create requests to build data maps across applications. Configure mapping keys and locations for each target dimension to export data maps.

Application Integration

Accelerate integration with EPM Cloud applications, for example, Planning, Financial Consolidation and Close, E-Business Suite General Ledger and Oracle Financials Cloud General Ledger, using pre-defined application registration. Leverage a custom application registration using an open interface to integrate with all other business applications. Use a wizard-driven configuration experience to onboard applications: establish reusable connections, configure import and export operations, and construct ready-to-use, application-specific views for immediate application maintenance purposes.

Automate Tasks

Automate tasks interactively or via a scheduled process using the EPM Automate. For example, migrate across service instances, upload and download files, reset an environment and re-create an environment.

Audit Transaction History

Transaction history can be audited to see changes made to nodes, properties, and relationships over time. Transaction history is recorded when requests are committed. You can view, filter, and download transaction history to a file.

Expressions for Custom Business Logic

Expressions are used to define custom business rules for nodes in particular applications. Expressions can be configured for derived properties and property
transformations to calculate property values for nodes in viewpoints. Expressions are
deﬁned in a graphical manner using a palette and an editor.

Watch these videos:

• Overview of Oracle Enterprise Data Management Cloud
• Getting Started with the User Interface of Oracle Enterprise Data Management Cloud

Overview of Narrative Reporting

Narrative Reporting is an Oracle Cloud solution for management and narrative reporting. It provides a secure, collaborative, and process driven approach for defining, authoring, reviewing and publishing financial and management report packages. In addition, Narrative Reporting offers multidimensional analytics, and you can choose to store, analyze, and source data from the Cloud via built-in analytics or use your own existing data sources for analyzing and authoring doclet content.

Key beneﬁts:

• Combine Data and Narrative: Use report packages and doclets to address authoring, collaboration, commentary, and delivery needs.

• Collaborate Securely: Gives report contributors access to content based on their role and insures that sensitive content is secure. Also, lets report owners see the progress of the reporting lifecycle.

• Report Conﬁdently: Allows you to trust that the data is reliable and accurate while providing faster, more accurate insights to all stakeholders.

View this video to get an overview of Narrative Reporting.

Overview of Strategic Workforce Planning

Oracle Strategic Workforce Planning Cloud, a part of the Oracle Fusion Human Capital Management family, translates long-term corporate strategy into execution plans by ensuring that the strategy is supported by the right workforce—the right skill sets and headcount at the right time.

You look at long-term demand for resources by exploring scenarios that impact those demands. You also look at what’s going to happen with your current workforce, for example, through retirement or natural attrition. Evaluating demand against supply helps you understand what gaps there may be—positive or negative—so that you can proactively plan for needed resources. You can anticipate the headcount and skills needed to support your business strategy.

Strategic Workforce Planning provides conﬁgurable drivers and demand thresholds that enable planners to answer such questions as, “Do our employees have the right skill sets to accomplish future plans?” and “Will expected expenses and revenues support our plans?”. You select the best calculation logic for each driver, which translates driver values to future long-term full-time equivalent (FTE).

Watch this video to learn about Strategic Workforce Planning.
You can also enable Workforce to manage and track headcount expenses. You can then align critical corporate resources—people and dollars—with the strategies that best leverage a competitive advantage. Departments can collaborate to plan headcount and related expenses such as salaries, health care, bonuses, and taxes. Planners can see up-to-date graphics that show expenses and trends.

If Workforce is enabled with all its features, planners can manage and track headcount expenses:

- Analyze, calculate, and report on headcount, salary, bonuses, taxes, and health care expenses
- Plan for hires, transfers, promotions, terminations, and so on
- Define country-appropriate taxes and benefits

Overview of Oracle Sales Planning Cloud

Oracle Sales Planning Cloud provides an extensible framework for planning and managing sales performance.

Using Oracle Sales Planning Cloud enables you to automate critical processes by eliminating spreadsheets in key sales operations processes and improves collaboration for planning and modeling sales quotas.

Oracle Sales Planning Cloud is extensible using the EPM Cloud framework to further add additional configurations and personalization into your sales planning application with custom navigation flows, dashboards, and infolets. Use tasks and approvals to manage the quota planning process. Use Groovy rules to customize even further for enhanced calculation and business rules. Oracle Sales Planning Cloud can be integrated with Oracle Engagement Cloud – Sales Cloud for pushing quota targets to incentive compensation or bring in actual attainment.

Watch this overview video to learn more about Oracle Sales Planning Cloud.

About Quota Planning

The Quota Planning business process offers top-down and bottom up target quota planning by territory, product, account, or other custom dimensions. Use Predictive Planning and what if scenario planning to explore and compare different quota scenarios for informed decision making. Quota Planning builds best practices into its content, including its forms, calculations, dashboards, infolets, drivers, and measures.

Quota Planning helps you plan reliable target quotas by engaging all of the participants of the process, for example, the VP of Sales, Sales Operations, Sales Managers, and Sales Reps. Set a target quota for the next year. Then, optimize your results by making adjustments by product, applying padding or seasonality, or performing predictive planning or what-if analysis. When the target is ready, planners perform top-down or waterfall planning to allocate the target quota throughout the hierarchy.

If needed in your organization, you can also perform bottom up planning to get quota commitments from Sales Reps, allowing a collaborative approach. After the target quotas are pushed up to the next level of the hierarchy and aggregated, you can compare top down and bottom up results. Use the built-in dashboards to analyze and evaluate your quota plans with quota attainments.
Enhance the planning process in your organization by adding additional measures, task lists, or approvals.

Watch this video to learn about Quota Planning.

About Sales Forecasting

Advanced Sales Forecasting provides a robust platform for the sales forecasting process, allowing multidimensional sales forecasting across territory, products, accounts, channels, or other custom dimensions. It offers sales teams connected sales planning with integration between Quota Planning, compensation planning, and sales forecasts. With Advanced Sales Forecasting, you can plan at the weekly or monthly level, and use a rolling forecast if your business requires it. It offers these key features:

- Out-of-box best practice content for sales forecasting and analysis, including metrics, KPIs, and measures to help data-driven sales forecasting across the Sales hierarchy.
- Extensibility using the Planning Cloud platform, allowing additional configurations, such as custom forms and dashboards, measures, dimensions, navigation flows, and Groovy rules for custom calculations.
- Ability to adjust forecast commitment at the territory level or detailed level (for example, by product or account) to facilitate collaborative data-driven forecast commitment.
- Predictive Planning to take the guesswork out of your forecasting.
- Oracle Smart View for Office, which provides a common Microsoft Office interface designed specifically for Oracle Enterprise Performance Management Cloud, including Oracle Sales Planning Cloud.
- Instantaneous aggregations and reporting using out-of-box reporting cube.

Advanced Sales Forecasting ensures greater reliability in your forecasts, and accountability and collaboration between Sales Management and Sales Reps.

Setting Up Browsers for EPM Cloud

Related Topics

- Supported Browsers
  Lists the supported and recommended browsers for Oracle Enterprise Performance Management Cloud.
- Browsers on Mobile Devices
- Minimum Screen Resolution

Supported Browsers

Lists the supported and recommended browsers for Oracle Enterprise Performance Management Cloud.
### Table 2-1  Supported Browsers for Each Client Platform

<table>
<thead>
<tr>
<th>Client Platforms</th>
<th>Recommended Browser</th>
<th>Other Supported Browsers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 7, 8, 8.1, and 10</td>
<td>Firefox ESR</td>
<td>Internet Explorer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Google Chrome</td>
</tr>
<tr>
<td>Apple Mac OS10.12.x (Sierra)</td>
<td>Firefox ESR</td>
<td>Safari, Google Chrome</td>
</tr>
<tr>
<td>Linux (all versions)</td>
<td>Firefox ESR</td>
<td>Google Chrome</td>
</tr>
<tr>
<td>iOS devices 9.x through 11.x</td>
<td>Safari</td>
<td>None</td>
</tr>
<tr>
<td>Android devices version 4.4..x, through version 7.x</td>
<td>Google Chrome</td>
<td>None</td>
</tr>
</tbody>
</table>

- Internet Explorer should be used in standard mode. Do not enable Compatibility View and Enterprise Mode.
- Mobile browser support is only for Planning applications. See Oracle Mobile Application Framework 2.4.2 Certification Matrix for a list of supported mobile devices.

To ensure access to the service, you must configure your browser to:

- Accept cookies from oraclecloud.com and cloud.oracle.com
  
  By default, the browsers are set up to accept cookies from websites. If your browser is configured to not accept cookies from sites, you must allow a per session or permanent exception for these sites

- Allow pop-up windows from oraclecloud.com and cloud.oracle.com

### About Duplicating Firefox and Chrome Tabs

A **Duplicate Tab** command is available in Firefox and Chrome browsers to spawn another instance of the current tab. Oracle does not recommend using this command to duplicate the current view of a business process because it may cause EPM Cloud business process to display an error.

### Configuring Internet Explorer

Configuring Internet Explorer for Oracle Enterprise Performance Management Cloud involves enabling cookies and customizing security settings.

Additionally, you need to complete these steps following:

- Add service URLs to trusted sites:
  - URLs of each environment that you access; for example,
    
    https://env_type-servicename.pbcs_us1.oraclecloud.com/workspace

  - The following URL of the website from which you access the video feature overviews:
    
    https://apex.oracle.com

- Enable cookies, ActiveX, and JavaScript
- Enable pop-up windows from oraclecloud.com and cloud.oracle.com.
To configure Internet Explorer settings:

1. In Internet Explorer, select **Tools**, and then **Internet Options**.

2. Add trusted sites.
   a. In **Security**, click **Trusted Sites**, and then **Sites**.
   b. In **Add this website to the zone**, enter the URL of the service environment.
   c. Click **Add**.
   d. Repeat step 2.b and 2.c to add `https://apex.oracle.com` as a trusted site.
   e. Click **Close**.

   a. In **Security**, click the zone to which your EPM Cloud service belongs (typically, **Internet**), and then **Custom level**.
   b. Under **ActiveX controls and plug-ins**, select **Enable** as the value of these settings:
      - **Allow ActiveX Filtering**
      - **Run ActiveX controls and plug-ins**
   c. Under **Miscellaneous**, select **Enable** as the value of **Allow script-initiated windows without size or position constraints**.
   d. Click **OK**.
   e. Click **OK**.

4. Enable pop-ups from `oraclecloud.com` and `cloud.oracle.com`.
   a. Select **Tools**, then **Pop-up Blocker**, and then **Pop-up Blocker settings**.
   b. In **Address of web site to allow**, enter `oraclecloud.com`, and then **click Add**.
   c. In **Address of web site to allow**, enter `cloud.oracle.com`, and then **click Add**.
   d. Click **Close**.

**Configuring Internet Explorer for a Localized Version of the Service**

You update the language settings of Internet Explorer to access Oracle Enterprise Performance Management Cloud in a language other than the default browser language.

For a list of languages in which the service is available, see *Understanding EPM Cloud Localization*. 
To modify language settings:

1. In Internet Explorer, select **Tools**, and then **Internet Options**.
2. In **Internet Options**, click **Languages**.
3. Optional: If the language that you want to use is not listed in **Language**, add it using these steps:
   a. In **Language Preference**, click **Add**.
   b. In **Add Language**, select the desired language, and then click **OK**.
4. Click the desired language and then click **Move Up** to move it to the top of the list.
5. Click **OK**.
6. Click **OK** to close **Internet Options**.

### Configuring Firefox

Configuring Firefox involves enabling Oracle Enterprise Performance Management Cloud pop-ups and modifying privacy settings.

Firefox, by default, is configured to accept cookies from websites. If your browser is configured to not accept cookies from sites, you must allow a per-session or permanent exception for **cloud.oracle.com** and **oraclecloud.com**. You must also allow Firefox to open pop-up windows from these websites.

To configure Firefox to accept cookies and enable pop-ups:

1. Start Firefox
2. Select **Tools**, then **Options**, and then **Privacy**.
3. Verify the setting in the **Firefox will** field:
   - If the value is set to **Remember history** or **Never remember history**, your browser will use default settings to correctly display the service.
   - If the value is set to **Use custom settings for history**:
     - Verify that the **Accept cookies from sites** check box is selected (checked).
     - Click **Exceptions**, and remove any exception that prevents the following websites from setting cookies:
       * **cloud.oracle.com**
       * **oraclecloud.com**

     If the **Accept cookies from sites** check box is not selected, complete the following steps:
     a. Click **Exceptions**.
b. In Address of web site, enter cloud.oracle.com, and then click either Allow or Allow for session, depending on your privacy policies.

c. Repeat step 3.b to add oraclecloud.com.

d. Click Save Changes.

4. Enable pop-up windows from cloud.oracle.com and oraclecloud.com, and, optionally, enable pages to choose their own fonts.

   a. Click Content.

   b. If Block pop-up windows is selected (checked), click Exceptions.

   c. In Address of web site, enter oraclecloud.com, and then click Allow.

   d. In Address of web site, enter cloud.oracle.com, and then click Allow.

   e. Click Save Changes.

   f. For Narrative Reporting only: enable pages to choose their own fonts.

      i. Click Advanced under Fonts & Colors.

      ii. Select Allow pages to choose their own fonts, instead of my selections above.

      iii. Click OK.

Configuring Firefox for a Localized Version of the Service

You update the language settings of Firefox to access Oracle Enterprise Performance Management Cloud in a language other than the default browser language.

For a list of languages in which the service is available, see Understanding EPM Cloud Localization.

Note:

Narrative Reporting can override the browser locale by setting a preferred locale. See Managing User Preferences in Administering Narrative Reporting for details.

To modify language settings:

1. In Firefox, select Tools, and then Options.

2. Click Content to open the Content page.

3. Click Choose next to Languages.

4. Optional: If the language that you want to use is not listed in Languages, add it using these steps:

   a. In Languages, click Select a language to add....

   b. Select the desired language, and then click Add.

5. Click the desired language and then click Move Up to move it to the top of the list.

6. Click OK.
Configuring Google Chrome for a Localized Version of the Service

You update the language settings of Google Chrome to access the service in a language other than the default browser language. For a list of languages in which the service is available, see Understanding EPM Cloud Localization.

To reconfigure Chrome for a new locale:

1. In Google Chrome, access Settings by navigating to the following URL: chrome://settings/
2. Click Settings, then Advanced, and then Languages.
3. From Language drop-down list, select Add Languages.
4. In Add Languages, select the display language for the service and then click ADD.
5. Click More actions next to the display language for the service that you added in the preceding step and then select Display Google Chrome in this Language.
6. Click RELAUNCH.
   Google Chrome restarts in the selected language.

Browsers on Mobile Devices

Only Google Chrome (on Android mobile devices) and Apple Safari (on iPads) are supported for mobile devices. See Oracle Mobile Application Framework web site and then click the current version (for example, MAF 2.6.1) to open the Oracle Mobile Application Framework Documentation page. Click Certification Information for a list of supported devices.

Note:
Oracle Enterprise Data Management Cloud and Financial Reporting Web Studio are not supported on mobile devices.

Minimum Screen Resolution

Ensure that the screen resolution of your display unit is set to 1024 x 768 or higher.

Accessing EPM Cloud

You can access an environment using Oracle Cloud or Single Sign-On credentials.

- Using Oracle Cloud credentials. See Authenticating Using Oracle Cloud Credentials.
- Using network credentials if your organization configured Single Sign-On (SSO) access. See Authenticating Using Single Sign-On Credentials.

SSO access between Oracle Enterprise Performance Management Cloud and deployments of Oracle Fusion and NetSuite is also available. Additionally, SSO can be provided by integrating your services with Oracle Identity Cloud Service.
See "Managing Single Sign-On" in *Administering Oracle Cloud Identity Management* for information on configuring the SSO process to work with the identity provider that your organization uses. Additionally, your IT administrator may configure browsers for Integrated Windows Authentication (IWA) to allow you to access the service without entering your credentials.

**Note:**

Clients such as the EPM Automate do not work with SSO credentials. The user accounts for accessing such clients must be maintained in EPM Cloud.

### Authenticating Using Oracle Cloud Credentials

The first time you log in, check the email from Oracle Cloud Administrator (oraclecloudadmin ww@oracle.com) for your user name and a temporary password. Check the email from your Service Administrator for the URL to access the service.

To access the service, you must have the following information:

- The URL of an Oracle Cloud environment
- A user name
- A password

To access an environment:

1. Go to the URL of an Oracle Enterprise Performance Management Cloud environment.
2. Enter your user name and password.
3. Click **Sign In**.

If you have already reset your default password, the Home page is displayed.

If you are accessing the service for the first time, the **Password Management** screen is displayed to help you personalize your password.

   a. In **Old Password**, enter the temporary password that you received in the email from Oracle Cloud Administrator (oraclecloudadmin ww@oracle.com).
   
   b. In **New Password** and **Re-Type Password**, enter a new password that conforms to the password policy displayed on screen.
   
   c. In **Register challenge questions for your account**, select challenge questions and their answers. These are used to retrieve the password if you forget it.

   d. Click **Submit**.

### Authenticating Using Single Sign-On Credentials

The process of signing in is determined by your organization's SSO configuration. If you are in a setup that uses IWA, upon accessing an Oracle Enterprise Performance Management Cloud URL, the SSO process may not prompt you to supply a user name and password.

To access an environment using your SSO credentials:
1. Go to the URL of an EPM Cloud environment.
2. Click Company Sign In.

**Note:**

In SSO enabled environments, Company Sign In is the only option available to most users. Service Administrators and Account Reconciliation Power Users, whose accounts are configured to run EPM Cloud client components such as EPM Automate, will see an additional option to sign in using Traditional Cloud Account.

If you are in a setup that uses IWA, the landing page of the service is displayed. Otherwise, a login screen is displayed.

3. If a sign in screen is displayed, enter the user name and password that you use to access your organization's network resources, and then click OK.

**Understanding the Home Page**

When you sign in to an environment, the Home page, which contains cards that group the activities that you can perform in the environment, is displayed. Cards provide access to key tasks, tutorials, and related information. On clicking a card, a page containing available shortcuts opens. Availability of shortcuts on a page depends on the role you have in the environment.

In addition to service-specific cards, the following common panels, cards and icons are available on the Home page.

**Welcome Panel**

The Welcome Panel gives you quick access to key information including messages and the tasks assigned to you. What you see in the Welcome Panel depends on the service.

**Academy**

Click Academy to access a variety of resources for understanding and working with the service. Available resources includes video overviews, tutorials, and information on key tasks.

**Navigator**

Click to open a list of shortcuts that mirror the features and functionality that you normally access from the cards available on the Home page.

**Settings and Actions Menu**

Click your user name at the top-right corner of the screen to display Settings and Actions. The options available in this menu depend on your role. Generally, you use this menu to access online Help, the Provide Feedback utility, Downloads page, and Oracle Support website, and to sign out of the environment.

You can also access Oracle Cloud Customer Connect, a community gathering place for members to interact and collaborate on common goals and objectives, from
**Settings and Actions.** You will find the latest release information, upcoming events, and answers to use-case questions on Oracle Cloud Customer Connect.

**Accessibility Settings Icon**

Click to specify accessibility settings to enable screen readers and the high contrast setting.

**Home Icon**

Click to return to the Home page.

**Show/Hide Bar**

The Show/Hide bar is available after you select an option from a card on the Home page. You click it to hide or show the contents of the current card.

## Changing Your Password

At your first login, you are prompted to personalize your password and set responses to challenge questions to retrieve the password if you forget it. Subsequently, Oracle Enterprise Performance Management Cloud users will receive an email notification every day, starting seven days prior to password expiry, asking you to change your password. You can reset the password and change your challenge questions and responses from the My Profile page of the My Services application.

> **Note:**
>
> This information is not applicable to users who use the **Company Sign In** option to access an environment.

To change your password:

1. Go to the Oracle Cloud website:

   http://cloud.oracle.com

2. Click **Sign In**.

3. Under **Cloud Account**, select an account type and data center, for example, US Commercial 1 (us1).

4. Click **My Services**.

5. Enter your identity domain and click **Go**.

6. Enter your Oracle account credentials (user name and password), and click **Sign In**.

7. Click **My Profile**.

8. To change your current password:

   a. In **Old Password**, enter your current password.
b. In **New Password** and **Confirm New Password**, enter a new password that abides by the password policy.

c. Click **Submit**.

## Turning on Accessibility Mode

Except in Oracle Enterprise Data Management Cloud environments, accessibility mode is not enabled by default. A Service Administrator must enable the use of screen reading software from your environment before other users can use accessibility mode.

If you are using a screen reader, Oracle recommends that you use Internet Explorer; some service screens may not display properly if you use other browsers.

See these guides:

- [Accessibility Guide for Planning](#)
- [Accessibility Guide for Financial Consolidation and Close](#)
- [Accessibility Guide for Profitability and Cost Management](#)
- [Accessibility Guide for Account Reconciliation](#)
- [Oracle Cloud Accessibility Guide for Narrative Reporting](#)
- [Accessibility Guide for Tax Reporting](#)

## Sample EPM Cloud URLs

You use a unique URL to access each Oracle Enterprise Performance Management Cloud environment. A Service Administrator provides these URLs to users.

New customers of EPM Standard Cloud Service and EPM Enterprise Cloud Service instances use URLs similar to the following to access EPM Cloud environments:

**Production environment URL pattern:** https://epm-idDomain.epm.dataCenter.oraclecloud.com/epmcloud

**Test environment URL pattern:** https://epm-test-idDomain.epm.dataCenter.oraclecloud.com/epmcloud

For example, for EPM Cloud environments provisioned with identity domain `exampleDoM` in `exampleDC` data center, the URLs may be as follows:

**Production environment:** https://epm-exampleDoM.epm.exampleDC.oraclecloud.com/epmcloud

**Test environment:** https://epm-test-exampleDoM.epm.exampleDC.oraclecloud.com/epmcloud

Existing customers can continue using the old URLs or switch to the new URL which will automatically redirect to the existing environments.

New subscriptions, including those newly purchased by existing customers, are configured to use with the new URL.
What Happens to the Current URLs?

EPM Cloud now uses the new `epmcloud` context to redirect you to an environment.

If you are an existing user, you may update your URLs with this new application context. For example, if your current URL is `https://example-idDomain.pbcs.dom1.oraclecloud.com/HyperionPlanning`, you can update the URL as follows:

`https://example-idDomain.pbcs.dom1.oraclecloud.com/epmcloud`

It is not mandatory to update your current URLs, which can also be used to access your environment.

URL Format

Typically, in addition to an application context, a URL identifies the service name, type, and the identity domain in the following format:

`https://ServiceName-ServiceType-IdentityDomainName.DataCenter.oraclecloud.com/applicationcontext`

For example, a Planning environment URL may be as follows:

`https://example-test-idDomain.pbcs.dom1.oraclecloud.com/HyperionPlanning`, where

- `example-test` is the service name,
- `idDomain` is the name of the identity domain that services the environment,
- `pbcs` is the service type of the environment,
- `dom1` is the data center that hosts the environment, and
- `HyperionPlanning` is the application context.

Sample URLs

Planning

- `https://example-idDomain.pbcs.dom1.oraclecloud.com/HyperionPlanning`
- `https://example-idDomain.pbcs.dom1.oraclecloud.com/workspace/index.jsp`

Planning Modules and Financial Consolidation and Close

`https://example-idDomain.pbcs.dom1.oraclecloud.com/HyperionPlanning`

Tax Reporting

`https://example-idDomain.pbcs.dom1.oraclecloud.com/workspace`

Profitability and Cost Management, Account Reconciliation, Oracle Enterprise Data Management Cloud, and Narrative Reporting

`https://example-idDomain-epm.dom1.oraclecloud.com/epm`

Account Reconciliation

`https://example-idDomain-epm.dom1.oraclecloud.com/arm`

Information Sources

The following documents contain information on performing functional administrative tasks for Oracle Enterprise Performance Management Cloud components:
Table 2-2  Information Sources for Service Administrators

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administering Planning</td>
<td>Explains how to create and administer Planning applications</td>
</tr>
<tr>
<td>Administering Planning Modules</td>
<td>Explains how to create and administer Planning Modules applications</td>
</tr>
<tr>
<td>Administering Financial Consolidation and Close</td>
<td>Explains how to create and administer Financial Consolidation and Close applications</td>
</tr>
<tr>
<td>Administering Tax Reporting</td>
<td>Explains how to create, configure, and administer Tax Reporting applications</td>
</tr>
<tr>
<td>Administering Oracle Profitability and Cost Management Cloud</td>
<td>Explains how to create and administer Profitability and Cost Management applications</td>
</tr>
<tr>
<td>Setting Up and Configuring Account Reconciliation</td>
<td>Explains how to set up and configure the account reconciliation process in EPM Cloud</td>
</tr>
<tr>
<td>Administering and Working with Oracle Strategic Workforce Planning Cloud</td>
<td>Details how to configure and administer Oracle Strategic Workforce Planning Cloud and complete tasks.</td>
</tr>
<tr>
<td>Administering Account Reconciliation</td>
<td>Contains information on administering account reconciliation compliance and transaction matching in EPM Cloud</td>
</tr>
<tr>
<td>Administering Narrative Reporting</td>
<td>Explains how to administer Narrative Reporting</td>
</tr>
<tr>
<td>Designing with Management Reporting for Oracle Enterprise Performance Management Cloud</td>
<td>Explains how to administer Management Reporting to create financial and managerial reports</td>
</tr>
<tr>
<td>Working with Applications, Models, and Dimensions for Narrative Reporting</td>
<td>Explains how to set up and administer Narrative Reporting applications</td>
</tr>
<tr>
<td>Working with EPM Automate for Oracle Enterprise Performance Management Cloud</td>
<td>Contains information about the EPM Automate, which helps you automate many EPM Cloud administrative tasks</td>
</tr>
<tr>
<td>Administering Access Control for Oracle Enterprise Performance Management Cloud</td>
<td>Contains information about using Access Control to manage user groups and generate various reports to understand service usage</td>
</tr>
<tr>
<td>Administering and Working with Oracle Enterprise Data Management Cloud</td>
<td>Explains how to use Oracle Enterprise Data Management Cloud to manage all your enterprise data and work with business perspectives.</td>
</tr>
<tr>
<td>Administering Migration for Oracle Enterprise Performance Management Cloud</td>
<td>Contains information about using Migration to perform administrative tasks on artifacts and to generate reports that identify artifact changes that have taken place over a period</td>
</tr>
<tr>
<td>Working with Financial Reporting for Oracle Enterprise Performance Management Cloud</td>
<td>Contains information on administering Financial Reporting to support EPM Cloud components</td>
</tr>
<tr>
<td>Administering Oracle Enterprise Data Management Cloud</td>
<td>Describes how to use Data Management to develop standardized financial data management processes and validate data from most source systems.</td>
</tr>
<tr>
<td>Administering Data Integration for Oracle Enterprise Performance Management Cloud</td>
<td>Describes how to use the Data Integration to integrate data from source systems into Planning and Planning Modules.</td>
</tr>
</tbody>
</table>
Oracle Cloud Help Center

The Oracle Cloud Help Center is the hub for accessing the latest Oracle Enterprise Performance Management Cloud books, Help topics, and videos.

From the Cloud Help Center, you can get user assistance from a variety of sources such as documentation, videos, and tutorials. Typically, the Cloud Help Center is updated on the first Friday of each month.

Service-Specific Libraries

To access a service-specific library containing the latest documentation for a service, click the name of the service in the Enterprise Performance Management section of Oracle Cloud Help Center.

Available User Assistance Assets

User assistance available from a service-specific library, includes the following:

- **Videos**: Click Videos to access videos that provide overview information as well as instructions to use application features.
- **Books**: Click Books in the navigation pane to see the latest English documentation.
- **Translated Books**: Click Translated Books in the navigation pane to see available localized online help and documentation.
- **Tutorials**: Click Tutorials to get instructions (Learning Paths and Oracle by Example) to learn a topic.

View this video to get an overview of the user assistance assets available for EPM Cloud.

Oracle Learning Library

The Oracle Learning Library is dedicated to hosting free instructional content developed by Oracle subject-matter experts.

Use the Search function in Oracle Learning Library to find tutorials, overview videos and Oracle by Example (OBE) tutorials.

Understanding EPM Cloud Localization

Oracle Enterprise Performance Management Cloud user interface, Online Help, and guides are available in many languages.

**User Interface**

Generally, EPM Cloud user interface is translated into Arabic, Danish, German, Spanish, Finnish, French, French Canadian, Italian, Japanese, Korean, Dutch, Norwegian, Polish, Portuguese (Brazilian), Russian, Swedish, Turkish, Simplified Chinese, and Traditional Chinese.
Exceptions: Account Reconciliation and Profitability and Cost Management user interfaces are not translated into Arabic and Norwegian.

- Oracle Enterprise Data Management Cloud user interface is translated into these additional languages: Czech, Hebrew, Hungarian, Romanian, and Thai
- Oracle Smart View for Office user interface is translated into these additional languages: Czech, Greek, Hebrew, Hungarian, Portuguese, Romanian, Slovak, and Thai

Note:
To change the language displayed on the user interface and online Help, see the following:
- Configuring Internet Explorer for a Localized Version of the Service
- Configuring Firefox for a Localized Version of the Service
- Configuring Google Chrome for a Localized Version of the Service

For information to display a localized version of Smart View, see "Translation Information" in Oracle Smart View for Office User's Guide.

Online Help and Documentation
Online Help and guides are translated into French, German, Italian, Spanish, Brazilian Portuguese, Japanese, Korean, Traditional Chinese, and Simplified Chinese. Oracle Smart View for Office User's Guide is translated into Dutch also.

The translated online help and documentation cover all features up to September 6, 2019, except for the Oracle Enterprise Data Management Cloud translated online Help and guides which cover all features up to October 4, 2019.

To see the latest documentation, use the English documentation on the Books tab.

Sample Applications and Demos
EPM Cloud sample applications, demos, and data are in English only.

Videos
The overview video closed captions are translated into French, German, Italian, Spanish, Brazilian Portuguese, Japanese, Korean, Traditional Chinese, and Simplified Chinese.

Tutorial video closed captions are not translated.
Working with EPM Cloud Clients and Tools

Oracle Enterprise Performance Management Cloud client components include Oracle Smart View for Office, EPM Automate, and Financial Reporting. Availability of client components depend on your service.

In This Section:
• Available Clients and Utilities
• Prerequisites
  – Smart View Requirements
  – Calculation Manager Requirements
• Downloading and Installing Clients
• Accessing a Service Using Smart View
  – Connection Types
  – URL Syntax for Smart View Connections
  – Configuring Connections in Smart View
  – Initiating a Connection
• Connecting to a Service Using Financial Reporting Web Studio

Available Clients and Utilities

Availability of Oracle Enterprise Performance Management Cloud clients and utilities depends on the current environment. For example, Oracle Smart View for Office and Financial Reporting do not apply to all services.

You can download the following EPM Cloud components, utilities, and templates.

• Clients for Planning and Planning Modules
• Clients for Financial Consolidation and Close and Tax Reporting
• Clients for Profitability and Cost Management
• Clients for Account Reconciliation
• Clients for Oracle Enterprise Data Management Cloud
• Clients for Strategic Workforce Planning
• Clients for Narrative Reporting
• Clients for Oracle Sales Planning Cloud

All Available Clients and Utilities

This is a list of all clients and utilities available from EPM Cloud services.

• EPM Automate
The EPM Automate allows Service Administrators to access environments over a command window to automate business activities such as exporting an application and downloading the exported application to desktop. See "About EPM Automate" in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for details.

• Smart View

Smart View provides a common Microsoft Office interface designed specifically for EPM Cloud.

Note:

You may also use Smart View (Mac and Browser) with the browser-based version of Excel 365 and Excel 365 for Mac. See these information sources:

- A Service Administrator deploys Smart View (Mac and Browser) for all users. See Deploying and Administering Oracle Smart View for Office (Mac and Browser) for information on prerequisites and deployment procedures.

- Users connect to EPM Cloud using Smart View (Mac and Browser) to complete tasks. See Working with Oracle Smart View for Office (Mac and Browser).

These service-specific extensions are available:

- Planning Extensions
  Planning Extensions include Smart View Admin Extensions and Planning application templates, which facilitate application administration activities, such as dimension management, from within the Excel interface.

- Smart View Add-On For Administrator
  Allows application administration activities, such as dimension management, to be performed from within the Excel interface.

- Smart View Extension for Close and Supplemental Data Management
  Enables users to perform close and supplemental data management from within the Excel Interface.

- Smart View Extension for Enterprise Performance Reporting
  Allows users to perform assigned tasks and analyze model data from within the Microsoft Office suite.

- Smart View Extension for Disclosure Management
  Allows users to perform disclosure management activities in Narrative Reporting, including tagging, validation, and instance generation from within Microsoft Word.

- Smart View Extension for Disclosure Management Auto Tagging
  Provides the ability to perform high volume XBRL auto tagging from within Microsoft Excel as part of as part of Narrative Reporting Disclosure Management.
• Strategic Modeling
Strategic Modeling is an add-on to Smart View that enables users to interact with
Strategic Modeling, one of the Planning Modules.

• Predictive Planning
Predictive Planning is an extension to Smart View that works with valid forms to
predict performance based on historical data.

• File Transfer Utility
This utility allows Service Administrators to access Narrative Reporting
environments over a command window to automate business activities.

• Sample Content
Provides sample report packages, management reports, dimension and data load
files, and a sample application for Planning Modules.

Clients for Planning and Planning Modules
• EPM Automate
• Smart View
• Planning Extensions
• Predictive Planning
• Strategic Modeling (for Planning Modules only)

Clients for Financial Consolidation and Close and Tax Reporting
• EPM Automate
• Smart View
• Smart View Add-On for Administrator
• Smart View Extension for Close and Supplemental Data Management

Clients for Profitability and Cost Management
• EPM Automate
• Smart View

Clients for Account Reconciliation
EPM Automate

Clients for Oracle Enterprise Data Management Cloud
EPM Automate

Clients for Strategic Workforce Planning
• EPM Automate
• Smart View
• Planning Extensions
• Predictive Planning
Clients for Narrative Reporting

• Smart View
• Smart View Extension for Enterprise Performance Reporting
• Smart View Extension for Disclosure Management
• Smart View Extension for Disclosure Management Auto Tagging
• File Transfer Utility
• Sample Content

Clients for Oracle Sales Planning Cloud

• EPM Automate
• Predictive Planning
• Smart View
• Planning extensions
• Strategic Modeling

Prerequisites

Related Topics

• Smart View Requirements
  Excepting Account Reconciliation and Oracle Enterprise Data Management Cloud, all Oracle Enterprise Performance Management Cloud services use Oracle Smart View for Office as a client component.

• Calculation Manager Requirements
  Shockwave Flash (Firefox) or Adobe Flash Player (Internet Explorer) is required.

Smart View Requirements

Excepting Account Reconciliation and Oracle Enterprise Data Management Cloud, all Oracle Enterprise Performance Management Cloud services use Oracle Smart View for Office as a client component.

These services must satisfy Microsoft Office requirements in addition to Smart View requirements.

• The newest Smart View release is available from the Downloads tab on Oracle Technology Network.
• Microsoft Office 2010, 2013, or 2016
• .NET Framework 4.5 or higher
Note:

- Some services provide extensions and templates, which you download and install after installing Smart View. Extensions and templates applicable to a service are available from the download location of the service.
- For Smart View platform requirements, see the 11.1.2.x version of the Oracle Enterprise Performance Management System Certification Matrix, which is posted on Oracle Technology Network.

Calculation Manager Requirements

Shockwave Flash (Firefox) or Adobe Flash Player (Internet Explorer) is required.

These services do not use Calculation Manager.

- Profitability and Cost Management
- Tax Reporting
- Account Reconciliation
- Narrative Reporting

Downloading and Installing Clients

You download Oracle Enterprise Performance Management Cloud components and utilities from the Downloads page. You can download Oracle Smart View for Office from Oracle Technology Network.

For information on installing the EPM Automate, see “Installing EPM Automate” in Working with EPM Automate for Oracle Enterprise Performance Management Cloud.

To install EPM Cloud clients:

1. Sign in to an environment. See Accessing EPM Cloud.
2. On the Home page, access Settings and Actions by clicking your user name at the top right corner of the screen.
3. Click Downloads.

   The Downloads page opens. This page lists only the components applicable to the service that you are currently accessing.
4. Download the component that you want to install:

   For Smart View only:
   
a. Click Download from Oracle Technology Network.
      The Oracle Technology Network download page is displayed.

   b. Click Download Latest Version.

   c. Select Accept License Agreement, and then click Download Now.

   d. If prompted to sign in, enter your Oracle Technology Network credentials and click Sign In.
e. Follow the on-screen instructions and save the Smart View archive to a local folder.

f. Unzip the Smart View archive to extract SmartView.exe.

g. Close all Microsoft Office applications.

**For components other than Smart View:**

a. In the **Downloads** page, click the **Download** button of the component that you want to install.

b. Follow the on-screen instructions and save the installer to a local folder.

5. Run the installer (for example, SmartView.exe) as an administrator.

---

### Accessing a Service Using Smart View

You can use a shared Connection or a private connection to access Oracle Smart View for Office.

**Related Topics**

- **Connection Types**
  Oracle Smart View for Office supports these connection types. You see the same data irrespective of the connection type you use.

- **URL Syntax for Smart View Connections**
  Oracle Smart View for Office uses different URL syntax for shared and private connections.

- **Configuring Connections in Smart View**
  After installing Oracle Smart View for Office, you must set up a connection to an environment.

- **Initiating a Connection**
  You may need to sign in to initiate an Oracle Smart View for Office connection.

### Connection Types

Oracle Smart View for Office supports these connection types. You see the same data irrespective of the connection type you use.

- **Shared connections**: Use public URL of an environment, which is also used to access the environment through a browser, to establish a connection between Smart View and an Oracle Enterprise Performance Management Cloud environment. See **Configuring a Shared Connection**

- **Private connections**: Use the an environment-specific URL to establish a connection between Smart View and an EPM Cloud environment. See **Configuring a Private Connection**.
See "Shared Connections and Private Connections" in Oracle Smart View for Office User's Guide for more information on these connection types.

Note:
Account Reconciliation does not use Smart View.

URL Syntax for Smart View Connections

Oracle Smart View for Office uses different URL syntax for shared and private connections.

Use the following information as a guide to the URL syntax you must specify for each service type.

Planning, Planning Modules, Financial Consolidation and Close, and Tax Reporting

Shared connection syntax:
https://env-example-idDomain.dom1.oraclecloud.com/workspace/SmartViewProviders

Private connection syntax:
https://env-example-idDomain.dom1.oraclecloud.com/HyperionPlanning/SmartView

Profitability and Cost Management and Narrative Reporting

Private connection syntax:
https://env-example-idDomain.dom1.oraclecloud.com/epm/SmartView

Configuring Connections in Smart View

After installing Oracle Smart View for Office, you must set up a connection to an environment.

• Configuring a Shared Connection
• Configuring a Private Connection

Configuring a Shared Connection

To configure a shared connection:

1. Start Microsoft Excel.
2. Click Smart View, then Options, and then Advanced.
3. In Shared Connections URL, enter the connection URL. See URL Syntax for Smart View Connections for connection syntax.
4. Click OK.
Configuring a Private Connection

See "Using Quick Connection Method" in Oracle Smart View for Office User's Guide for an alternate way to create a private connection.

To configure a private connection using the Private Connection Wizard:

1. Start Microsoft Excel.
2. Click Smart View and then Panel.
3. In Smart View Panel, click the arrow next to (Switch to), and then select Private Connections.
4. Click Create new connection at the bottom of the panel.
5. From Smart View, select Smart View HTTP Provider.
6. In URL, enter the connection URL. See URL Syntax for Smart View Connections for connection syntax.
7. Click Next.
8. In Login, enter the user name and password for accessing the service, and then click Sign In.
9. In Add Connection - Application/Cube, navigate to the application and cube to work with, select it, and then click Next.
10. In Add Connection - Name/Description, enter a name for the connection and an optional description.
11. Click Finish.

Initiating a Connection

You may need to sign in to initiate an Oracle Smart View for Office connection.

You can connect to only one service per worksheet.

Watch this video to see a tutorial on navigating in Oracle Smart View for Office, including connecting to a data source.

To initiate a connection:

1. Start Microsoft Excel.
2. Click Smart View, and then Panel.
3. Click the arrow next to (Switch to), and then do one of the following:
   • Select Shared Connections, and then select a shared connection that you previously configured. See Configuring a Shared Connection.
   • Select Private Connections, and then, from the drop-down list, select a private connection that you previously configured. See Configuring a Private Connection.
4. Click (Go to the selected Server or URL).
   The Login screen is displayed.
5. In Login, enter the user name and password for accessing the service, and then click Sign In.

Connecting to a Service Using Financial Reporting Web Studio

You access Financial Reporting Web Studio by selecting a link from the service.

To launch Financial Reporting Web Studio:

1. Using a browser, access an environment. See Accessing EPM Cloud.

2. Click (Navigator), and then select Reporting Web Studio.
Managing Users and Roles

Identity Domain Administrators create and manage Oracle Enterprise Performance Management Cloud users. While users are shared across test and production environments, they are provisioned separately for each.

In This Section:

• About User and Role Management
• Understanding Predefined Roles
  – Planning and Planning Modules
  – Financial Consolidation and Close
  – Tax Reporting
  – Profitability and Cost Management
  – Account Reconciliation
  – Strategic Workforce Planning
  – Oracle Enterprise Data Management Cloud
  – Narrative Reporting
  – Oracle Sales Planning Cloud
• Accessing My Services
• Creating Users
• Assigning Roles to Users
• Managing Users

About User and Role Management

The service implements several security layers. Infrastructure security components, which are implemented and managed by Oracle, create a highly secure service environment.

The service ensures security using the following mechanisms that permit only authorized users to access the service.

• Single Sign-On (SSO)
• Role-based access to environments

SSO and role-based security are controlled by Oracle Identity Management, which defines a security domain for each environment. After a successful signin, access to the service is determined by the role assigned to the user.
Identity Domain

An identity domain controls the accounts of users who need access to environments. It also controls the features that authorized users can access. An Identity Domain Administrator creates and manages user accounts within an identity domain. The Account Administrator, while activating the service, identifies a user who is granted the Identity Domain Administrator role.

By default, each customer is allocated two environments (test and production environments) of a service. The Identity Domain Administrator uses the My Services application to manage the users who need access to these environments.

Many Oracle Enterprise Performance Management Cloud services may belong to one identity domain.

Users

Each user who needs to access an environment must have an account in the identity domain associated with the environment. The roles granted to the user determine what the user can do within an environment.

Roles

Roles link users to the business activities that they are permitted to perform within an environment and the data that they can access.

Users must be assigned to predefined roles that grant them access to business functions and associated data. Predefined service roles are described in Understanding Predefined Roles.

Understanding Predefined Roles

Most Oracle Enterprise Performance Management Cloud services use a common set of predefined functional roles to control access to environments.

Access to environments is granted by assigning users to roles. For example, to permit user John Doe to view reports belonging to a Planning and Budgeting test environment, he should be assigned to the Viewer role of the environment.

All EPM Cloud services other than Narrative Reporting and Oracle Enterprise Data Management Cloud use a common set of four predefined functional roles to control access to service environments:

- Service Administrator
- Power User
- User
- Viewer

Note:

Roles belonging to a test environment are distinguished by appending -test to the service name; for example, myservice-test User.
The access that a predefined role grants within an environment depends on the service type. For example, the Power User role in Planning enables you to manage business rule security and control the approval process while the same role in Tax Reporting enables you to run tax automation and import data.

Predefined functional service roles are hierarchical. Access granted through lower-level roles is inherited by higher-level roles. For example, Service Administrators, in addition to the access that only they have, inherit the access granted through Power User, User, and Viewer roles.

**Note:**
- To create unique role names that distinguish the roles belonging to an environment, Oracle Identity Management prepends the environment name to roles; for example, *myservice Viewer*, where *myservice* is the environment name.
- EPM Cloud does not support custom roles (which can be created in the identity domain).

**About the Identity Domain Administrator Role**

In addition to the functional roles, all EPM Cloud services use the Identity Domain Administrator role to manage users.

Identity Domain Administrators use the Security Page of My Services to perform all identity domain management tasks such as managing users and their roles, configuring single sign-on, and setting up network restricted access.

See the Identity Domain Administrator role description in *Getting Started with Oracle Cloud* for a detailed description of this role.

Identity Domain Administrator is not a functional role; it does not inherit access privileges granted through functional roles. To access service features, the Identity Domain Administrator must be granted one of the four functional roles.

**Note:**
An Identity Domain Administrator manages both the test and production environments of all services belonging to an identity domain.

An Identity Domain Administrator can create other Identity Domain Administrators, who can share the administrative workload. Having multiple Identity Domain Administrators also ensures seamless operation in case an Identity Domain Administrator becomes unavailable.

**Planning and Planning Modules**

**Service Administrator**
Performs all Planning or Planning Modules functional activities, including granting roles to users.
This role should be granted to functional experts who need to create and administer Planning or Planning Modules and service components.

**Power User**

Views and interacts with data. This role grants high-level access to several functional areas within an environment and should be granted to department heads and business unit managers, and business users in charge of a region who need to control the approval process.

A Power User can perform these activities:

- Creates and maintains forms, Oracle Smart View for Office worksheets, and Financial Reporting reports
- Manages business rules security, but cannot create rules
- Creates and manages user variables for the application, but cannot delete them.
- Views substitution variables
- Controls the approvals process, performs actions on approval units to which they have write access, and assigns owners and reviewers for the organization under her charge
- Creates reports using Financial Reporting, accesses the repository to create folders and save artifacts
- Loads data using forms and Data Management

**User**

**Note:**

The User role was created by renaming the Planner role. If your service was provisioned after May, 2016, you will see the User role and not the Planner role.

- Enters data into forms and submits them for approval, analyzes forms using ad hoc features, controls the ability to drill through to the source system
- Accesses and modifies (rename, delete) the Financial Reporting content stored in the Repository for which the user has View, Modify, or Full Control permissions.

**Viewer**

Views and analyzes data through forms and data access tools. Typically, this role should be assigned to executives who need to view business plans during the budgeting process.

**Financial Consolidation and Close**

**Service Administrator**

Performs all Financial Consolidation and Close functional activities, including granting roles to users.

- Access all tasks, Task Manager templates and schedules
• Create and manage Task Types, Integration Types, Attributes, and Alert Types
• Generate and manage Task Manager and Supplemental Data Manager reports
• Define and deploy Supplemental Data sets, and manage data collection periods
• Manage Supplemental Data forms

This role should be granted to Financial Consolidation and Close experts who need to create and administer the Consolidation application and service components.

**Power User**

Views and interacts with data. This role grants high-level access to several Financial Consolidation and Close functional areas and should be granted, typically, to the consolidation experts and regional senior financial analysts of your organization. A Power User can perform these activities:

• Create and maintain forms, Oracle Smart View for Office worksheets, business rules, task lists, and Financial Reporting reports
• Consolidate data as needed for entities to which they have access
• Control the approvals process, perform actions on consolidation units and journals to which they have modify access, and assign owners and reviewers for the organization under their charge
• Import data
• Create and save Smart Slices
• Create and manage Task Manager tasks, templates, Task Types, and schedules
• Define and deploy Supplemental Data sets
• Define Supplemental Data forms and modify form data

**Note:**

Anyone other than a user with the Viewer role can become an owner or reviewer.

**User**

The activities that a User can perform includes:

• Enter and submit data for approval, analyzes forms using ad hoc features, and control the ability to drill through to the source system. Create and submit for approval the journals for dimension members for which they have Modify rights
• Access Data Management (to create an integration, run an integration, and drill through) and load data if an application role that grants such access is assigned to the user
• Modify task status, create and modify Task Manager alerts, comments, and questions
• Access Task Manager and Supplemental Data Manager Dashboards
• Enter and edit data in Supplemental Data forms
Viewer

Tasks that a Viewer can perform includes:

- View and analyze data through forms and any data access tool, such as reports, Smart Slices, journals, and ad hoc grids
- View Task Manager schedules and Supplemental Data form data

This role typically should be assigned to executives who need to view consolidation and close reports.

Tax Reporting

Service Administrator

Performs all functional activities (read, write, and update) in Tax Reporting, including granting roles to users, and metadata and data, for all entities or a specific group or entity. This role also performs tax automation.

This role should be granted to Tax Reporting experts who need to create and administer the application and service components.

- Accesses all tasks, Task Manager templates and schedules
- Creates and manages Task Types, Integration Types, Attributes, and Alert Types
- Generates and manages Task Manager and Supplemental Data Manager reports
- Defines and deploys Supplemental Data sets, and manage data collection periods
- Manages Supplemental Data forms

Power User

Views and interacts with data. This role grants high-level access to several Tax Reporting functional areas and should be granted, typically, to the consolidation experts and regional senior financial analysts of your organization. A Power User can perform these activities:

- Reads and writes to the application, runs tax automation, and imports data for the assigned entities.
- Create and maintain forms, Oracle Smart View for Office worksheets, business rules, task lists, and Financial Reporting reports
- Imports data
- Creates and saves Smart Slices
- Creates and manages Task Manager tasks, templates, Task Types, and schedules
- Defines and deploys Supplemental Data sets
- Defines Supplemental Data forms and modifies form data
User

The activities that a User can perform includes the following:

- Reads, writes, and updates only tax-related forms for the assigned entities. Also, enters and submits data for approval, analyzes forms, consolidates data, and creates and submits journals for dimension members to which they have access. This role cannot perform tax automation.
- Accesses Data Management (to create an integration, run an integration, and drill through) and load data if an application role that grants such access is assigned to the user
- Modifies task status, create and modify Task Manager alerts, comments, and questions
- Accesses Task Manager and Supplemental Data Manager Dashboards
- Enters and edits data in Supplemental Data forms

Viewer

Tasks that a Viewer can perform include the following:

- Views reports and has read-only access to specified forms to view and analyze data through forms and any data access tools. Data Access tools include reports, Smart Slices, journals, and ad hoc grids. This access is usually assigned to reviewers, directors, executives, and so on
- Views Task Manager schedules and Supplemental Data form data

Profitability and Cost Management

Service Administrator

Performs all functional activities in an environment.

This role should be granted to functional experts who need to create and administer Profitability and Cost Management application and service components.

Power User

Views and interacts with data. This role grants high-level access to several functional areas within an environment and should be granted to department heads and business unit managers, and business users in charge of a region who need to control the approval process.

A Power User can perform activities including the following:

- Adds allocation rules, analytical features, financial reports, and queries
- Imports and exports data
- Calculates application models
• Updates metadata and performs all application management tasks except creation and deletion

User
• Enters data where user input is requested
• Runs analytical tools and reports
• Designs reports, queries, dashboards, and other analytical elements

Viewer
Views and analyzes data but does not have write access

Account Reconciliation

Service Administrator
Configures the system and manages the worldwide reconciliation process. These users have unrestricted access to all Account Reconciliation features including the ability to view all reconciliations.

Power User
Adds and maintains profiles and creates reconciliations from those profiles, but only if the profiles fall within the user’s security filter. A Service Administrator defines security filters from the System Settings configuration tab of the Account Reconciliation environment.

Generally, this role is assigned to users who have regional reconciliation management responsibilities.

Note:
Power Users can administer authorized sets of profiles and reconciliations in Account Reconciliation. This feature is designed for companies with distributed reconciliation processes that require participation of employees familiar with configuring profiles and reconciliations locally.

Authorization of profiles and reconciliations occurs through security filters on account segments. For example, Power User A might be granted authorization only to profiles or reconciliations where segment one = 100 and segment two starts with 12. Security filters are created and assigned to each Power User.

User
Prepares and reviews account reconciliations or views or comments on reconciliations. Access to reconciliations is controlled by the assignment of the user to the reconciliation. For example, in order to prepare a given reconciliation, the user must be assigned the Preparer role for that reconciliation.

Typically, this role is granted to preparers, reviewers, and commentators on reconciliations.
Viewer

Views reconciliations.

Oracle Enterprise Data Management Cloud

Service Administrator

Performs all Oracle Enterprise Data Management Cloud functional activities such as creating applications, views and updating data. Performs administrative tasks including granting functional roles to users, migrating artifacts across test and production environments, and performing daily maintenance.

This role should be granted to functional experts who need to create and administer Oracle Enterprise Data Management Cloud applications and data.

User

A user in Oracle Enterprise Data Management Cloud can be assigned roles to create views and applications and assigned permissions to work with applications, views and data chains.

Note:

Power User and Viewer predefined roles are also displayed in My Services. Do not assign users to these roles, which are not applicable to Oracle Enterprise Data Management Cloud.

Strategic Workforce Planning

Service Administrator

Performs all Oracle Strategic Workforce Planning Cloud functional activities, including granting roles to users.

This role should be granted to functional experts who need to create and administer Strategic Workforce Planning components.

Power User

Views and interacts with data. This role grants high-level access to several functional areas within an environment and should be granted to department heads and business unit managers, and business users in charge of a region who need to control the approval process.

A Power User can perform these activities:

- Creates and maintains forms, Oracle Smart View for Office worksheets, task lists, and Financial Reporting reports
- Manages business rules security, but cannot create rules
- Creates and manages user variables for the application, but cannot delete them.
- Views substitution variables
• Controls the approvals process, performs actions on approval units to which they have write access, and assigns owners and reviewers for the organization under her charge
• Creates reports using Financial Reporting, accesses the repository to create folders and save artifacts

**User**

• Enters data into forms and submits them for approval, analyzes forms using ad hoc features, controls the ability to drill through to the source system
• Accesses and modifies Financial Reporting content stored in the Repository for which the user has View, Modify, or Full Control permissions.
• Accesses Data Management and loads data

**Viewer**

Views and analyzes data through forms and data access tools. Typically, this role should be assigned to executives who need to view business plans during the budgeting process.

**Narrative Reporting**

**Roles for New Subscriptions**

If you are working in an EPM Standard Cloud Service or EPM Enterprise Cloud Service environment, you can assign Narrative Reporting users to these predefined roles.

**Service Administrator**

Performs all functional activities, including granting predefined roles to Narrative Reporting users.

**Power User**

• Creates report packages, management reporting definitions, and Disclosure Management documents.
• Creates folders, including root-level folders.
• Creates and maintains all artifacts, such as models, dimensions, and data grants.

**User**

Views Narrative Reporting artifacts to which the user has access.

**Viewer**

Views reports and other artifacts to which the user has access. This is the minimum role required to sign in to and use an environment.

**Roles for Legacy Subscriptions**

Users can be assigned to the following predefined roles if your Narrative Reporting subscription was purchased before release 19.07 (June 2019).

**System Administrator**
Creates and maintains all aspects of the service, but cannot create and manage users in the identity domain. This role is similar to the Service Administrator role of other Oracle Enterprise Performance Management Cloud services.

**Reports Administrator**

Creates report packages, management reporting definitions, and Disclosure Management documents.

**Application Administrator**

Creates and maintains all artifacts, such as applications, models, dimensions, and data grants.

**Library Administrator**

Creates folders, including root-level folders.

**User**

Views artifacts to which the user has access. This is the minimum role required to sign in to and use an environment.

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**Oracle Sales Planning Cloud**

**Service Administrator**

Performs all Oracle Sales Planning Cloud functional activities, including granting roles to users. This role should be granted to functional experts who need to create and administer Oracle Sales Planning Cloud components.

**Power User**

Views and interacts with data. This role grants high-level access to several functional areas within an environment and should be granted to department heads and business unit managers, and business users in charge of a region who need to control the approval process.

A Power User can perform these activities:

- Creates and maintains forms, Oracle Smart View for Office worksheets, and task lists
- Creates and manages user variables for the application, but cannot delete them.
- Views substitution variables
- Controls the approvals process, performs actions on approval units to which they have write access, and assigns owners and reviewers for the organization under her charge

**User**

- Enters data into forms and submits them for approval, analyzes forms using ad hoc features, controls the ability to drill through to the source system
- Accesses Data Management and loads data
Viewer

Views and analyzes data through forms and data access tools. Typically, this role should be assigned to executives who need to view business plans during the sales planning process.

Accessing My Services

The Identity Domain Administrator uses My Services to create and manage users. The Identity Domain Administrator can complete tasks such as the following:

• Set up single sign-on
• Create and manage users
• Manage and monitor Oracle Enterprise Performance Management Cloud account
• Set up network restricted access (whitelists/blacklists)
• Consolidate identity domains

If you are the Identity Domain Administrator for multiple environments, you must sign in to My Services using the Identity Domain Administrator credentials applicable to the identity domain associated with the environment.

To access My Services:

1. Go to the Oracle Cloud website:

   http://cloud.oracle.com

2. Click Sign In.

3. Under Cloud Account, select an account type and data center, for example, US Commercial 1 (us1).

4. Click My Services.

5. Enter your identity domain and click Go.

6. Enter your Oracle account credentials (user name and password).

7. Click Sign In.

Creating Users

The Identity Domain Administrator can create users individually or use an upload file containing user data to create many users at once.

Identity Domain Administrators are expected to possess these skills:

• Proficiency in security concepts, including the predefined Oracle Enterprise Performance Management Cloud roles that allow users to gain access to an environment.

• Know how to use My Services to complete tasks.

By default, Oracle Cloud administrator (oraclecloudadmin ww@oracle.com) sends an email to each new user. The email contains the credentials (user name and a temporary password) that the user needs to sign in to the environment.
Note:

- User names must contain only ASCII characters.
- The first name, last name and email ID of users may contain the apostrophe punctuation mark (').
- Email IDs containing the apostrophe punctuation mark cannot be used as the user name.

Use these information sources:

- To create one user and assign roles, see "Creating a User and Assigning a Role" in Getting Started with Oracle Cloud.
- To create many users using an input file, see "Importing a Batch of User Accounts" in Getting Started with Oracle Cloud.
- To generate a Comma Separated Value (CSV) file that identifies the users in an identity domain, use the Export button on the Users tab of My Services.

Assigning Roles to Users

You can assign predefined roles to users while creating them or later on by loading user assignments to role from a CSV file.

To assign predefined roles to many users at once, you use role upload files, one for each role. Create role upload files by dividing the users in the user upload file among comma-separated value files, one for each role. Each file must contain the email address of the users to whom you want to assign a specific role.

Note:

Oracle Enterprise Performance Management Cloud does not support the use of custom roles (which can be created in the identity domain).

See Understanding Predefined Roles for detailed information on EPM Cloud roles. For detailed steps, see these sections in Getting Started with Oracle Cloud:

- Creating a User and Assigning a Role
- Assigning One Role to Many Users
Note:

After assigning roles, a Service Administrator should email the URLs to access the test and production environments of the service to EPM Cloud.

Generally, you use different URLs to access the test and production environments of the service. Be sure to include the appropriate URL in the email.

Managing Users

Unassigning a Role

The Service Administrator, by unassigning a role, denies access that was previously granted to the user. You unassign a role by modifying the roles assigned to the user.

Deleting Users

Only an Identity Domain Administrator can delete a user account.

See "Removing a User Account" in Managing and Monitoring Oracle Cloud.

Creating Groups for Application-Level Role Assignment

The following Oracle Enterprise Performance Management Cloud applications allow you to create groups. You can assign identity domain users or other groups as children of a group.

- Planning
- Planning Modules
- Financial Consolidation and Close
- Tax Reporting

Group information is maintained independently by each environment. For information on creating groups and assigning application-level roles, see Administering Access Control for Oracle Enterprise Performance Management Cloud.
Securing EPM Cloud

You can use the default Oracle Enterprise Performance Management Cloud Single Sign-On (SSO) or use a a Security Assertion Markup Language 2 (SAML 2) compliant identity provider to authenticate users to multiple EPM Cloud services.

In This Section:

• Configuring Single Sign-On
  – Setting up Single Sign-on Using Oracle Identity Cloud Service
  – Configuring Single Sign-On Between EPM Cloud and Oracle Fusion Cloud
  – Configuring Single Sign-On Between EPM Cloud and NetSuite
• Setting up Network Restricted Access
• Relocating an EPM Cloud Environment to a Different Identity Domain
  – Supported Relocation Scenarios
  – Considerations
  – Preparing to Relocate an environment
  – Scheduling the Daily Maintenance Process
  – Completing Relocation Tasks in Oracle Cloud
  – Importing Users into the Target Identity Domain and Assigning Roles
  – Importing Maintenance Snapshot into the Relocated Environment
  – Emailing Access Details
• Managing Integrated Business Process Navigation Flows

Configuring Single Sign-On

You can configure SSO to enable users belonging to a SAML 2 compliant identity provider to authenticate users against many Oracle Enterprise Performance Management Cloud environments.

Users use the SSO credentials that they use to access network resources of their organization to authenticate once to an EPM Cloud environment, and then seamlessly access other cloud environments configured using the same identity provider.

You may use any SAML 2.0 identity provider, for example, Oracle Identity Federation, Microsoft Active Directory Federation Services 2.0+, Okta, Ping Identity PingFederate, and Shibboleth Identity Provider, to establish SSO.

Oracle Fusion Cloud can be configured with Oracle Identity Federation as the identity provider. Similarly, Oracle NetSuite can be configured to use a SAML2 compliant identity provider. Additionally, you can integrate EPM Cloud with Oracle Identity Cloud Service to provide SSO access to many Oracle cloud environments.
See "Managing Oracle Single Sign-On " in *Administering Oracle Cloud Identity Management* for information on how users can access multiple Oracle Cloud services using one set of credentials.

### Setting up Single Sign-on Using Oracle Identity Cloud Service

Oracle Identity Cloud Service, a comprehensive cloud-based identity management and security platform, supports a universal set of access controls, permissions, and password security constraints.

Activity flow in this SSO scenario:

1. From a new browser session, a user accesses an Oracle Enterprise Performance Management Cloud environment URL. Oracle Identity Cloud Service signin screen is displayed.
2. The user enters an Oracle Identity Cloud Service user name and password.
3. Oracle Identity Cloud Service authenticates the user. The EPM Cloud environment that the user requested is displayed. Access within the environment is determined by the service role assigned to the user.
4. The user navigates to another environment that uses the same identity domain. Because the user is already authenticated, the requested environment is displayed without challenging the user for credentials.


### Prerequisites

- A subscription to Oracle Identity Cloud Service.
- Users who need SSO access were created in Oracle Identity Cloud Service.
- Users who need SSO access were created and provisioned in the identity domains being configured for SSO.

For detailed instructions to create and provision users, see "Adding Users and Assigning Roles" in *Getting Started with Oracle Cloud*.

### Configuration Steps

#### Tasks to complete in Oracle Identity Cloud Service

- Use Oracle Identity Cloud Service documentation to complete these steps.

For each EPM Cloud service for which you want to set up SSO, complete these actions:

- Add the EPM Cloud service as a SAML application. Application links in the Oracle Identity Cloud Service SAML application should point to the test or production environment of a service. For example, create a SAML application for Planning with an application link to its test or production environment.
If multiple environments share the same identity domain, you can create them as one SAML application or create a SAML application for each environment. Creating a SAML application for each environment allows you to invoke individual EPM Cloud environments.

Complete these steps while creating each application:

- Configure the SAML application for SSO.
  The entity id and assertion consumer URL must specify the identity domain for which SSO is being configured.
- Download Oracle Identity Cloud Service application metadata and store it in a secure location. You will need to load this metadata into EPM Cloud while configuring the identity domain for SSO.
- Assign users to the SAML application.
- Activate the SAML application.
- Import the signing certificates of the identity domain referenced by SAML applications.
  The signing certificate is generated from the identity domain that EPM Cloud service uses.

Tasks to complete in EPM Cloud

For each identity domain that supports SSO, complete these actions:

- Create Oracle Identity Cloud Service users as users in each identity domain and provision them.
  The Identity Domain Administrator can create users individually or use an upload file containing user data to create many users at once. See these topics in Getting Started with Oracle Cloud:
  - Creating a User and Assigning a Role
  - Importing a Batch of User Accounts
  Users who need to work with EPM Cloud client components; for example, EPM Automate, must be configured to maintain identity domain credentials. See Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO.
- Enable SSO in EPM Cloud.
  - Import the metadata of the Oracle Identity Cloud Service SAML application into the identity domain.
  - Export the signing certificate of the identity domain by selecting Signing Certificate from the drop-down list in the Configure your Identity Provider Information section.
    You must import the signing certificate into Oracle Identity Cloud Service.
  - Test the SSO configuration.
  - Start SSO.
- Test SSO configuration by accessing EPM Cloud environments.
Configuring Single Sign-On Between EPM Cloud and Oracle Fusion Cloud

You can establish SSO between Oracle Enterprise Performance Management Cloud and Oracle Fusion Cloud deployments that use Oracle Identity Federation as the identity provider.


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**Note:**

To establish SSO between Oracle Strategic Workforce Planning Cloud and Oracle Human Capital Management Cloud, use an SSO Federation (SAML 2) server that is approved for use with Fusion Cloud (many major ones are). An additional fee may be incurred if you use an uncertified server. See "Non-Certified Federation Server SSO Enablement for Oracle Fusion Cloud Service Setup Fee" in Oracle Fusion Service Descriptions for a list of SAML2 providers that are certified for Oracle HCM Cloud.

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**Prerequisites**

- The identity provider must be SAML2 compliant (if you are using your own identity provider).
- User accounts must exist in the Oracle Fusion Cloud identity store and the EPM Cloud identity domain. Both must be configured for SSO.

If you use an identity provider such as Okta, instead of the Oracle Identity Federation of Oracle Fusion Cloud, you must configure your users in the identity provider as well.

**Configuration Steps**

- Open a service request with Oracle Support to configure Oracle Identity Federation as the identity provider for SSO with Oracle Fusion Cloud. Oracle imports the required metadata to enable Oracle Fusion Cloud to work with Oracle Identity Federation.

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**Note:**

Be sure to provide the metadata of your identity provider in the service request if you are not using the Oracle Identity Federation of Oracle Fusion Cloud as the identity provider. In this scenario, Oracle will provide the metadata of Oracle Fusion Cloud service provider to your identity provider administrator to import it into your identity provider.
• In the Oracle Identity Federation that supports Oracle Fusion Cloud, or in the identity provider that you are using, create an account for each user who needs SSO access to Oracle Fusion Cloud.

You can create users by importing user details from a file or by accessing the Oracle Identity Management (OIM) console of the Oracle Identity Federation that supports Oracle Fusion Cloud. See Oracle Fusion Cloud documentation for information on creating users.

• Enable SSO in EPM Cloud.


• In the identity domain that supports the EPM Cloud environment, create and provision an account for each user who needs SSO access to EPM Cloud.

The Identity Domain Administrator can create users individually or use an upload file containing user data to create many users at once. See these topics in Getting Started with Oracle Cloud:

– Creating a User and Assigning a Role
– Importing a Batch of User Accounts

Users who need to work with EPM Cloud client components; for example, EPM Automate, must be configured to maintain identity domain credentials. See Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO.

• Test SSO configuration by accessing Oracle Fusion Cloud and then navigating to EPM Cloud, and vice versa.

### Configuring Single Sign-On Between EPM Cloud and NetSuite

You can establish SSO between Oracle Enterprise Performance Management Cloud and NetSuite deployments using user identities stored in a SAML 2.0 compliant identity provider.

⚠️ **Note:**

The procedures in this section have been tested using Okta as the identity provider that stores user identities. You can use any SAML 2.0 compliant identity provider to enable SSO.

SSO access between NetSuite and EPM Cloud is permitted only for users who have accounts in the user directories of NetSuite, Okta, and EPM Cloud identity domain.


**Prerequisites**

• All users of NetSuite and EPM Cloud are available in the SAML 2.0 compliant identity provider that you are using.

• EPM Cloud users who need SSO access were created and provisioned in the identity domain that services EPM Cloud. For detailed instructions to create and
provision users, see "Adding Users and Assigning Roles" in Getting Started with Oracle Cloud.

After enabling SSO, all EPM Cloud users will be able to navigate to NetSuite without being challenged for credentials. For these users, functional access is controlled by NetSuite roles and permissions.

• Users who need SSO access have been created and provisioned in NetSuite. For detailed information, see NetSuite documentation.

After enabling SSO, only the users in NetSuite who have been granted a NetSuite role that assigns SAML Single Sign-on access will be able to navigate to EPM Cloud without going through an additional sign in process.

Before starting the SSO configuration process, make sure that all users who need SSO access to EPM Cloud can access and work in NetSuite.

Configuration Steps

Tasks to complete in the Identity Provider (for example, Okta)

- Create and activate users who need SSO access between NetSuite and EPM Cloud resources as users in your organization's identity provider.
- Add NetSuite as an application, and provision the users who can use SSO.
- Add EPM Cloud as an application, and provision the users who can use SSO.

Tasks to complete in NetSuite

- Configure and enable SAML SSO.
  For Okta-specific instructions, see How to Configure SAML 2.0 for Netsuite.
- Create a SAML role that allow users to perform SAML SSO.
- Provision NetSuite users with the SAML role.
- Import the identity provider's (for example, Okta's) metadata file. You created this file as a part of creating the NetSuite application in Okta.

Tasks to complete in EPM Cloud

- Enable SSO in EPM Cloud.
- In the identity domain that supports the EPM Cloud environment, create and provision an account for each user who needs SSO access to NetSuite.
The Identity Domain Administrator can create users individually or use an upload file containing user data to create many users at once. See these topics in *Getting Started with Oracle Cloud*:

- Creating a User and Assigning a Role
- Importing a Batch of User Accounts

Users who need to work with EPM Cloud client components; for example, EPM Automate, must be configured to maintain identity domain credentials. See *Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO*.

- Test SSO configuration by accessing NetSuite and then navigating to EPM Cloud, and vice versa.

### Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO

Some Oracle Enterprise Performance Management Cloud client components; for example, EPM Automate, do not work with the SSO credentials that you use to access your organization's network resources.

In SSO-enabled environments, the accounts of all users, generally Service Administrators and Account Reconciliation Power Users, who need to work with EPM Cloud utilities, must be configured to maintain identity domain credentials. Identity Domain Administrators, while creating a user account in My Services, may select the **Maintain Identity Domain Credentials** to enable a user to maintain identity domain credentials.

#### Note:

Users whose accounts are configured to maintain identity domain credentials will see two sign in options—Company Sign In and Traditional Cloud Account Sign In—when you use a browser to access an environment. All other users will see only the Company Sign In option.

To modify a user account to maintain identity domain credentials:

1. Sign in to My Services as an Identity Domain Administrator. See *Accessing My Services* for instructions.
2. Click **Users**.
3. Click **Action** next to the user whose account is to be modified to maintain identity domain credentials, and then select **Modify**.
4. Select **Maintain Identity Domain Credentials**.
5. Click **Save**.

### Setting up Network Restricted Access

Identity Domain Administrators and Service Administrators, by configuring a whitelist or a blacklist, can control whether Internet Protocol (IP) addresses belonging to a network can connect to an environment.
A whitelist contains rules that define which IP addresses can access an environment while a blacklist contains rules that exclude IP addresses from connecting to an environment.

You use the Service Details screen of My Services to create whitelist or blacklist rules to regulate how users access an environment. While creating rules, the Domain Administrator or Service Administrator identifies individual IP addresses, a range of IP address, subnets/masks, or Classless Inter-Domain Routing (CIDR) to identify the addresses that are allowed or denied access to the environment.


Relocating an EPM Cloud Environment to a Different Identity Domain

You can consolidate Oracle Enterprise Performance Management Cloud services into one identity domain to centralize the process of managing users.

Related Topics

- Supported Relocation Scenarios
- Considerations
- Preparing to Relocate an environment
- Scheduling the Daily Maintenance Process
- Completing Relocation Tasks in Oracle Cloud
- Importing Users into the Target Identity Domain and Assigning Roles
- Importing Maintenance Snapshot into the Relocated Environment
- Emailing Access Details

Supported Relocation Scenarios

By default, the test and production service environments use one common identity domain to facilitate the management of users and role assignments for each environment. You can relocate Oracle Enterprise Performance Management Cloud environments to suit these scenarios:

- Relocate both the production and test environments to a different identity domain than the default.

  In this scenario, you can relocate both environments to another identity domain that you own so as to consolidate EPM Cloud environments into fewer identity domains. Consolidating identity domains allows you to manage users and roles in fewer identity domains.

- Relocate the production environment, test environment, or both to different identity domains.

  In this scenario, you manage users and role assignments in two different identity domains. To grant access to both test and production environments to a user, you need to create the user in two identity domains.
This configuration may be used to co-locate your EPM Cloud environments so that they share identity domains with Oracle Fusion Applications Cloud environments, which by default, use different identity domains for test and production environments.

- Locate a pair of environments in one identity domain and another pair in a different identity domain.

This option is suitable if you have a four-stage process involving an environment each for development, test, acceptance, and production. In this scenario, you can locate the development and test environments in one identity domain and acceptance and production environments in a different identity domain.

Considerations

- You can relocate an environment only if it was provisioned after May 1, 2016. Environments that were provisioned prior to this date cannot be relocated into another identity domain.

- You cannot relocate environments ordered with Hosted Named Users incremented over time, where the total number of Hosted Named User licenses has not yet been reached. Refer to your Order Documents for detailed information.

- Oracle Cloud Account Administrators may relocate an environment from its current identity domain to another if the target identity domain is provisioned for the same customer account.

- Account Administrators can relocate an environment to a target identity domain even if the target identity domain already hosts an environment with the same service name. In such cases, you are prompted to rename the environment that you are relocating to ensure that the environment name is unique within the target identity domain. Account Administrator role is not the same as the Identity Domain Administrator role of the service.

Only an user who is the Account Administrator in both the source and target domains can relocate an environment.

**Note:**

If you are relocating a test environment, you must append `-test` to the environment name in the target identity domain; for example, `new_env-test`. If you do not appropriately name your migrated test environments, the monthly update cycle will be disrupted.

- Account Administrators cannot create an identity domain as a part of the relocation process.

- It is possible to relocate only the test or production environment of a service into a target identity domain.

Relocation procedures are to be performed separately for the test and production environments.
Preparing to Relocate an environment

You prepare to relocate an environment by completing these tasks:

- Create Backup of the Environment
- Exporting Users and Roles from the Current Identity Domain for Narrative Reporting only

Create Backup of the Environment

Service Administrators can back up the environment by downloading the maintenance snapshot from the environment to a local folder.

If users modified data or artifacts after the last maintenance window, Service Administrators should perform the appropriate export operations and then download the resulting snapshot to a local folder. You can upload and import the saved snapshot into the relocated environment.

For Services Other Than Narrative Reporting

See Backing Up the Maintenance Snapshot for instructions to download the maintenance snapshot.

Use these steps to back up an environment.

- Create a snapshot using these information sources:
  - `exportsnapshot` command in Working with EPM Automate for Oracle Enterprise Performance Management Cloud
  - Exporting Artifacts in Administering Migration for Oracle Enterprise Performance Management Cloud

- Download snapshots using these information sources:
  - `downloadfile` command in Working with EPM Automate for Oracle Enterprise Performance Management Cloud
  - Downloading Snapshots from the Service in Administering Migration for Oracle Enterprise Performance Management Cloud

For Narrative Reporting

Use the `download_dbsnapshot` File Transfer Utility command to download the backup snapshot to a local computer. See "Using the File Transfer Utility" in Administering Narrative Reporting.
Exporting Users and Roles from the Current Identity Domain

Note:
This step is required for Narrative Reporting only.

Identity Domain Administrators use My Services to export users from the current identity domain.

To export user information:

1. Sign in to My Services as an Identity Domain Administrator. See Accessing My Services for instructions.
2. Click Users.
3. Ensure that All Roles is selected as the Show filter.
4. Click Export.
5. Save users.CSV in a folder on a local computer.

Scheduling the Daily Maintenance Process

Completing relocation tasks in Oracle Cloud prevents everyone from accessing the service until after the next scheduled maintenance of the environment is complete. Completing relocation tasks in Oracle Cloud takes only a few minutes.

To speed up the relocation process, a Service Administrator should reschedule the daily maintenance process for the environment to start at the beginning of the hour after relocation tasks are complete. If you are too close to the beginning of the next hour when you start the relocation tasks in Oracle Cloud, schedule daily maintenance to start at the hour after that. See Setting Service Maintenance Time for instructions.

Completing Relocation Tasks in Oracle Cloud

Oracle Cloud Account Administrators use the instructions available in Relocating a Service Entitlement to Another Identity Domain in Managing and Monitoring Oracle Cloud to relocate an environment.

Completing relocation tasks in Oracle Cloud takes only a few minutes. Oracle Cloud sends an email to Service Administrators when the process is complete.

Note:
You can continue with the remaining tasks only after the next daily maintenance of the environment is complete. See Scheduling the Daily Maintenance Process.
Importing Users into the Target Identity Domain and Assigning Roles

**Note:**
Complete this step only for Narrative Reporting. Other services do not require this step.

After the daily maintenance process is complete, an Identity Domain Administrator imports users from the user export file into the target identity domain.

Users that exist in the target identity domain are not re-created during the user import process. Such users need only be provisioned with their original roles. New users that were added to the target identity domain must also be provisioned.

Additional information is available in *Getting Started with Oracle Cloud*:
- Importing a Batch of User Accounts
- Assigning One Role to Many Users

To import users into the target identity domain and assign roles:

1. Sign in to My Services as an Identity Domain Administrator. See *Accessing My Services* for instructions. Be sure to sign into the target identity domain.
2. Click **Users**.
3. Click **Import**.
4. In **Import Users**, click **Browse** and select the users export file (**users.CSV**) that you saved to a local folder.
5. Click **Import**. The user import process is not instantaneous.
6. After the user accounts are available in the Identity Domain Administrator, provision the users with roles belonging to the relocated environment.

To grant pre-defined service roles to many users at once, you import role upload files, one for each pre-defined role. See “Assigning One Role to Many Users” in *Getting Started with Oracle Cloud*.

Importing Maintenance Snapshot into the Relocated Environment

Use one of the following to import the maintenance snapshot:
- **For Services Other Than Narrative Reporting**
- **For Narrative Reporting Only**

**Note:**
Delete the current application from the environment before importing maintenance snapshot.
For Services Other Than Narrative Reporting

A Service Administrator who is also assigned the Identity Domain Administrator role uses the EPM Automate to import users, role assignments, and artifacts from the maintenance snapshot into the relocated environment.

See “Command Reference” in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for detailed information on the commands used in this discussion.

To import the maintenance Snapshot:

1. Launch the EPM Automate. See these topics in Working with EPM Automate for Oracle Enterprise Performance Management Cloud:
   - Running EPM Automate: Windows
   - Running EPM Automate: Linux

2. Using the login command, sign in to the relocated environment in the new identity domain as a Service Administrator who also has the Identity Domain Administrator role:

   **Examples:**
   - `epmautomate login USERNAME PASSWORD URL IDENTITYDOMAIN`
   - `epmautomate login USERNAME PASSWORD_FILE URL IDENTITYDOMAIN`

3. Execute a command similar to the following to upload artifacts and data from the snapshot; for example, Artifact Snapshot:

   `epmautomate importsnapshot "Artifact Snapshot" userPassword=ExamplePwd1 resetPassword=true`

4. Sign out of the service:

   `epmautomate logout`

For Narrative Reporting Only

Use the `upload_dbsnapshot` File Transfer Utility command to upload the backup snapshot to the relocated environment. See “Using the File Transfer Utility” in Administering Narrative Reporting.

Emailing Access Details

After testing the relocated environment, a Service Administrator should email all users to provide them the URL to access the environment in the new identity domain.

If you use the Simplified Interface of Planning, users must use a URL similar to the following to access the relocated environment:

https://env_name-domain.us1.oraclecloud.com/HyperionPlanning

This replaces the following redirect URL format, which you may have previously used:

https://env_name-domain.us1.oraclecloud.com/workspace

Service Administrators can set up connections that enable users to navigate across Oracle Enterprise Performance Management Cloud environments to create unified business process flows across multiple environments.

Cross-environment navigation flows allow users of multiple EPM Cloud environments to sign into one environment, and then seamlessly navigate to others without going through additional authentication processes. Service Administrators can create mash-ups of artifacts from various environments into a single unified business process flow for their users. Clusters, cards, and tabs can be brought together into a single flow. These cards and tabs can contain forms, reports dashboards from various applications.

Watch this video for an overview of customizing Workflow in EPM Cloud.

Considerations

- Connections can be created in the following services only:
  - Planning
  - Planning Modules
  - Financial Consolidation and Close
  - Tax Reporting
- All EPM Cloud environments can be accessed from these source connections. Connections can be created between environments of the same service type. Only connections where environments are in the same identity domain within the same data center are supported.
Note:

- Connections across environments that use different identity domains within the same data center is not currently supported.
- Applications must be of the same version. For example, you cannot set up connections between a 19.09 Planning application and a 19.08 Financial Consolidation and Close application.

For detailed information on setting up and using cross-environment navigation, see the Administration Guide of the source service in which you want to configure links for navigation flow.
Backing Up and Restoring an Environment Using the Maintenance Snapshot

Oracle uses Artifact Snapshot to restore artifacts and data. This snapshot is created by the daily maintenance process.

In This Section:
- Overview of the Maintenance Snapshot
- For Services Other Than Narrative Reporting
  - Backing up the Maintenance Snapshot
  - Restoring Application Artifacts and Data from a Snapshot
- For Narrative Reporting Only
  - Saving Backup Snapshots
  - Restoring from a Backup

Overview of the Maintenance Snapshot

Every day, during the operational maintenance of the environment, Oracle backs up the content of the environment to create a maintenance snapshot, named Artifact Snapshot, of existing artifacts and data.

Service Administrators can use the maintenance snapshot to recover artifacts and data; for example, form definitions, reports, and so on, from the previous day that were deleted from the service after the last operational maintenance window. They can also, if needed, use it to restore the environment to the state it was in during the last operational maintenance. See Setting Service Maintenance Time.

Because Oracle stores only the snapshots created in the most recent maintenance window, the artifacts and data available for restoration depend on their state during the last maintenance window. Maintenance snapshots are created primarily to restore your environment in the case of a catastrophic failure.

Oracle recommends that you download the maintenance snapshots regularly to a local machine. Service Administrators are responsible for backing up the maintenance snapshot and then restoring the service environment if needed.

The default maximum size of your environment for disk storage is 150 GB; you can purchase additional storage to extend this limit. Files and snapshots that you create or upload to an environment are deleted after 60 days. The daily maintenance process monitors the environment and automatically removes snapshots older than 60 days. If the total size still exceeds the 150 GB limit, it deletes snapshots from the last 60 days, oldest first, until the total size of snapshots is less than 150 GB. The daily maintenance snapshot, irrespective of its size, is always retained. If your maintenance snapshot is larger than 150 GB, then only the maintenance snapshot is retained; all other snapshots are deleted.
Data Management process log files are retained for seven days only.

**Note:**
- An environment does not create a maintenance snapshot if it has not been in use since the last maintenance window. If an environment has not been in use for 14 days, however, a new maintenance snapshot is created.
- Generally, you can migrate maintenance snapshots from the test environment to the production environment and vice versa.
  
  **For Account Reconciliation only:** Account Reconciliation does not support migration of snapshots from the latest service update to an earlier service update (for example, when moving snapshots between test and production environments during the window when the test environment is upgraded before the production environment.)
  
  - You can create a backup of your environment at any time by exporting artifacts using Migration. See "Backing up Artifacts and Applications" in *Administering Migration for Oracle Enterprise Performance Management Cloud*.

The daily maintenance snapshot is stored in the environment.

**These Artifacts are Not Included in the Maintenance Snapshot**
- Data Management data that is not managed by Migration.
- Files that were uploaded to the environment, including snapshots that you uploaded.
- Files that you created by exporting artifacts from the environment.
- **For services other than Financial Consolidation and Close:** Audit records available in the environment. Audit records of Financial Consolidation and Close are included in the maintenance snapshot.

**For Services Other Than Narrative Reporting**

You can download the daily maintenance snapshot to a local computer manually from the Migration screen or automatically by using the EPM Automate.

**Backing up the Maintenance Snapshot**

**Automating the Download of the Maintenance Snapshot**

To automate the downloading of the snapshot, you create a script file containing the required EPM Automate commands, and schedule it (for example, using Windows Scheduler or Linux CRON job) to run after the daily maintenance of the environment is complete. See "Scenario 8: Backing up Application Snapshot to a Computer" in *Working with EPM Automate for Oracle Enterprise Performance Management Cloud* for a sample Windows script that you can repurpose to download the artifact snapshot.
Manually Downloading the Maintenance Snapshot

To manually download the artifact snapshot:

1. Access the environment as a Service Administrator. See Accessing EPM Cloud.
2. Complete a step:
   - Click Application and then Migration.
   - **Oracle Enterprise Data Management Cloud only:** Click Migration.
   - **Profitability and Cost Management only:** Click Console and then (Migration).
3. Click Snapshots.
4. Click (Actions) next to Artifact Snapshot, and then select Download.
5. Save the artifact snapshot (Artifact Snapshot.zip) to the local computer.

Restoring Application Artifacts and Data from a Snapshot

You can restore application artifacts and data from previous snapshots. For example, you can restore the artifacts and data to the state they were in a few days ago by restoring them from a snapshot that you backed up to a local machine.

Before restoring application artifacts, you should upload the source snapshot to the Oracle Enterprise Performance Management Cloud environment. Snapshots that you create or upload to the service are stored for 60 days, after which they are automatically deleted. See these sources for information on uploading snapshots to an environment:

- The EPM Automate uploadfile command in Working with EPM Automate for Oracle Enterprise Performance Management Cloud
- “Uploading Archives to the Service” in Administering Migration for Oracle Enterprise Performance Management Cloud

To restore artifacts from a snapshot:

1. Access the environment as a Service Administrator. See Accessing EPM Cloud.
2. Complete a step:
   - Click Application and then Migration.
   - **Oracle Enterprise Data Management Cloud only:** Click Migration.
   - **Profitability and Cost Management only:** Click Console and then (Migration).
3. Click Snapshots.
4. Select the snapshot that you want to use as the source to restore artifacts.
   - **To restore all artifacts of a specific component:**
     a. Expand the snapshot, and then click a component name; for example HP-Vision to list artifacts of the Vision sample application included in the snapshot.
     b. Click Import.
• **To restore specific artifacts of service components:**
  
a. Expand the snapshot, and then click a component name; for example HP-Vision to access a list of artifacts of the Vision sample application included in the snapshot.
  
b. In Artifact List, expand the list of available artifacts, and then select the artifacts you want to restore.
  
c. Click Close to return to Artifact Snapshots.
  
d. Optional: Repeat the preceding steps to select artifacts from other components included in the snapshot.

5. Click ![Selected Artifacts](https://example.com), and then verify the list of artifacts selected for export.

6. Click Actions, and then select Import.

7. Click OK.

The Migration Status Report opens. Click Refresh to verify that the operation completes without errors. Click Cancel to close the report.

**For Narrative Reporting Only**

Narrative Reporting uses the File Transfer Utility to perform backup and restore activities.

For detailed information on this utility, see "Using the File Transfer Utility" in Administering Narrative Reporting.

**Note:**

Before you restore your service from a backup snapshot, make sure the destination service is the same release or newer. You cannot restore a backup snapshot into a service that has an older release. You can confirm the version from the Settings and Action menu in Home page.

**Saving Backup Snapshots**

A saved snapshot allows you to restore an environment to a specific point.

A saved snapshot may be used to provide a specific restore point. For example,

- The state of the system immediately when going live, or immediately after a critical point, like the finalization of a quarterly reporting period. In this case, the snapshot would be restored if you ever want to further review or investigate prior activities.

- A saved snapshot could also be used if you discover that something went wrong prior to the most recent snapshot. You can select one of the snapshots from your local file system that you saved in order to restore the service to a known state.

To download the backup snapshot using the File Transfer Utility:

1. Open a Command Prompt window and navigate to the folder where the File Transfer Utility is installed.

2. Execute the following command:
eprcsctl operation=download_dbsnapshot secret=SECRET tenantid=TENTANTID user=USER password=PASSWORD file=XML_FILE_PATH,
where:
  • secret is a phrase that is used to encrypt the backup.
  • tenantid is the name of the identity domain that services the environment.
  • user and password are the Oracle Enterprise Performance Management Cloud credentials of the Service Administrator who is downloading the backup.
  • file is the absolute path, including file name, for storing the downloaded backup.

For example, eprcsctl operation=download_dbsnapshot
secret=myencryptionphrase tenantid=mydomain user=johndoe password=pwd file=c:\dbdownload.xml

Restoring from a Backup

Application restoration can be completed either through the Settings on the Home page or by using the File Transfer Utility.

When you restore a backup snapshot, your system returns to that prior state. Changes that occurred after the backup are not reflected in the restored system.

Restore will take place during the next daily maintenance, which you may reschedule so that it starts soon after you upload the backup snapshot. See Setting Service Maintenance Time.

**Note:**

From the Daily Maintenance screen, a Service Administrator can restore an environment using the current maintenance snapshot. To access this screen, select Daily Maintenance from the Home page.

To restore an environment using a backup snapshot that you downloaded:

1. Open a Command Prompt window and navigate to the folder where the File Transfer Utility is installed.
2. Execute the following command to upload the snapshot and to schedule it for restoration during the next scheduled maintenance of the environment.

     eprcsctl operation=upload_dbsnapshot secret=SECRET tenantid=TENTANTID user=USER password=PASSWORD file=XML_FILE_PATH,
     where:
     
     • secret is a phrase that is used to encrypt the backup.
     • tenantid is the name of the identity domain that services the environment.
     • user and password are the Oracle Enterprise Performance Management Cloud credentials of the Service Administrator who is uploading the backup.
     • file is the absolute path, including file name, from where the backup is to be uploaded.
For example, `eprcsctl operation=upload_dbsnapshot
secret=myencryptionphrase tenantid=mydomain user=johndoe password=pwd
file=c:\dbdownload.xml`
Setting Up EPM Cloud Environments

Setup tasks can be performed for an Oracle Enterprise Performance Management Cloud environment include setting the daily maintenance and content update start time, rebranding, and configuring SPF record for email verification.

In This Section:

- Understanding Updates to an Environment and Viewing Readiness Information
- Setting Service Maintenance Time
- Setting Content Update Start Time
- Monitoring Your Service
  - Using Activity Reports and Access Logs to Monitor Usage
  - Using the Role Assignment Report to Monitor Users
  - Monitoring Environments Using Oracle Cloud Applications
- Helping Oracle Collect Diagnostic Information Using the Provide Feedback Utility
  - Submitting Feedback Using the Provide Feedback Utility
  - Disabling Feedback Notification
- Rebranding EPM Cloud Environments
- Understanding Encryption Levels and Session Timeout
- Configuring SPF Record for Oracle Cloud Email Verification
- Retrieving Data After Service Termination

Understanding Updates to an Environment and Viewing Readiness Information

Generally, Oracle releases a patch containing bug fixes, code optimization, and feature updates on the first Friday of the month. Oracle applies this patch to the test environment during the next Daily Maintenance window following a patch release. Typically, production environments are patched on the third Friday of the month.

Monthly Updates to Environments

Oracle notifies Service Administrators of the updates included in each patch. For minor patch releases, Oracle typically provides one week advance notification before patching the test environment. For major updates, Oracle provides a two-month advance notification.
Viewing Readiness Information

A document that provides detailed information about the currently installed service update is posted on the Oracle Cloud Release Readiness website. Information that may be available at this website includes announcements and new features, changes in behavior, and fixed defects.

Note:
You can open the Oracle Cloud Release Readiness website directly by going to https://cloud.oracle.com/saas/readiness/overview.

To access readiness information from the service:

1. Access an environment. See Accessing EPM Cloud.
2. On the Home page, access Settings and Actions by clicking your user name at the top right corner of the screen.
3. Select About and then Version.
   Oracle Cloud Release Readiness website is displayed.
5. Click Enterprise Performance Management, and then the service type, for example, Planning & Budgeting.

Setting Service Maintenance Time

Each environment requires up to one hour every day to perform routine maintenance. Service Administrators can select (and change) the most convenient time to start the maintenance window.

In addition to routine maintenance, Oracle applies required patches (for example, monthly updates) to the environment and creates maintenance snapshots and Activity Reports during the maintenance window.

The new maintenance snapshot replaces the previous snapshot. Oracle recommends that you download the snapshot daily to backup the environment. See Backing Up and Restoring an Environment Using the Maintenance Snapshot.

Because the environment is not available to users during the maintenance window, the Service Administrator should identify a one-hour period when no one uses the service. Any connected user will be logged off and will lose unsaved data.

Note:
To allow users to save their data, Oracle Enterprise Performance Management Cloud displays a notice of impending maintenance 15 minutes before the maintenance process starts.
The default maintenance start time is between 10:00 p.m. and 1:00 a.m. local time of the data center that hosts your environment. If you do not reset the default start time for an environment, Oracle randomizes it to start between 10:00 p.m. and 1:00 a.m. local time of the data center. After you select a maintenance start time, Oracle honors your selection.

Some services may perform additional maintenance operations. For example, Planning Modules, Account Reconciliation, and Financial Consolidation and Close may require additional maintenance time for content upgrade. EPM Cloud environments are available only to Service Administrators during such maintenance periods.

**Note:**

Additionally, because of planned daily maintenance, the status of the environment in My Services console is always displayed as **Planned Maintenance** (in yellow) even if your environment has no other planned maintenance.

To set the maintenance start time:

1. Access an environment. See Accessing EPM Cloud.
2. Click **Tools** and then **Daily Maintenance**.
   
   **Narrative Reporting only:** Click Daily Maintenance.
3. Select the time zone of your data center.
4. In **Start Time**, select the time when the maintenance process should start.
5. Click **Apply**.

### Setting Content Update Start Time

Oracle Enterprise Performance Management Cloud business processes and applications may, sometimes, require a content update to accommodate the changes introduced during the daily maintenance of an environment.

**What is Content Update?**

Content update propagates the changes introduced during the daily maintenance of an environment. If a content update is required, Oracle creates and schedules a content update.
update job, which will, by default, be executed 12 hours after the daily maintenance is completed. All activities in the environment are suspended while content update is in progress. If other jobs are active in the environment when the content update job is scheduled to start, the content update job waits for three hours after which it is rescheduled for the next day. If a similar situation prevails at the content update scheduled start time on the next day, the update job is forcibly executed during the next daily maintenance.

Service Administrators can determine when content update processes starts by specifying an offset in relation to the daily maintenance start time. You can defer content update for a maximum of 12 hours. Oracle will create and schedule a new content update job based on your setting.

Because Oracle performs a cube refresh after content update, application customizations; for example, incomplete changes to the outline and metadata, may cause the content update to fail. In such cases, a Service Administrator should sign in to the environment and remove the customizations or complete the changes that caused the cube refresh to fail. If content update fails, the environment becomes inaccessible using REST APIs and the EPM Automate.

If a Service Administrator signs into an environment for which content update is scheduled, a screen indicating the scheduled content update is displayed. From this screen, the Service Administrator can start the content update or schedule it for later.

Note:

To view the progress and details of the content update process, use the Jobs console, which you can access by clicking Jobs in the Application cluster in the Home page.

To specify content update start time:

1. Access an environment as a Service Administrator.
2. Click Tools, then Daily Maintenance, and then Upgrade.
3. Using Hours and Mins drop down lists, select the offset time for starting the upgrade. This offset is in relation to the daily maintenance start time.
   - If daily maintenance is in progress at the content update start time, the environment will wait for the maintenance process to end before starting content update.
4. To always start the content update at the default update start time, select In the future, automatically update the application content.
5. Click Save.

Monitoring Your Service

You use the Activity Report and Access Logs to monitor what is happening in Oracle Enterprise Performance Management Cloud environments.

Related Topics

- Using Activity Reports and Access Logs to Monitor Usage
Using Activity Reports and Access Logs to Monitor Usage

**Note:**

The information in this section is not applicable to these services:
- Oracle Enterprise Data Management Cloud
- Narrative Reporting

Activity Reports are generated and stored in Narrative Reporting server. While Activity Reports are not accessible from Narrative Reporting screens, they can be downloaded using the `downloadFile EPM Automate` command.

You can generate a System Audit log, a CSV file, to identify changes to the service over a period of time. See "Performing an Audit" in *Administering Narrative Reporting* for detailed information.

**About the Activity Report**

The Activity Report, which is automatically generated during the maintenance process, enables Service Administrators to understand application usage. It also helps streamline application design by identifying calculation scripts and user requests that impact application performance. Two versions of the report; an HTML version and a JSON version, are available.

Oracle Enterprise Performance Management Cloud generates an additional Activity Report each time a user submits a feedback using the Provide Feedback Utility. This report, additionally, displays information that the user submitted, for example, screen shots and problem description.

**Note:**

The JSON version of the Activity Report is not accessible from the service. Use the `downloadFile EPM Automate` command to download it.

Service Administrators use these reports to identify problems faced by users and to compare service usage and performance to those available in a report from the past. Information about these areas is available:
- Jobs in the Last Hour
- User Information
- Interface Usage and Service Response Data
- Essbase Statistics
- Calculation Script Statistics
• Manual Database Access Information
• Business Rules Information
• Application Design Information
• Most Recent Metadata Validation Errors and Warnings
• CPU and Memory Usage Statistics
• Browser, Smart View, and Excel Usage Information

Note:
Information available in the Activity Report depends on the components used. For example, the report will not contain Oracle Smart View for Office statistics if no user used it to access data in the course of the day.

Jobs in the Last Hour

This information is available only in an Activity Report generated when a user submits a feedback.

User Information

User information available in the report includes the following:

• Number of users who accessed the service.

In addition to the average usage duration for the number of users on a specific day, the report presents information on the number of users who logged on each day over the last week, users over the last seven days, and users over the last 30 days.

Number of Users

<table>
<thead>
<tr>
<th>Metric</th>
<th>08:02</th>
<th>08:03</th>
<th>08:04</th>
<th>08:05</th>
<th>08:06</th>
<th>08:07</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>26</td>
<td>25</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>-</td>
<td>22</td>
</tr>
<tr>
<td>Users Last 7 Days</td>
<td>35</td>
<td>36</td>
<td>41</td>
<td>45</td>
<td>49</td>
<td>-</td>
<td>51</td>
</tr>
<tr>
<td>Users Last 30 Days</td>
<td>35</td>
<td>36</td>
<td>41</td>
<td>45</td>
<td>49</td>
<td>-</td>
<td>52</td>
</tr>
<tr>
<td>Average Duration (Hour:Min)</td>
<td>00:55</td>
<td>00:57</td>
<td>00:53</td>
<td>00:53</td>
<td>00:53</td>
<td>-</td>
<td>00:28</td>
</tr>
</tbody>
</table>

You can use this information to determine if there is a correlation between the number of users and the performance of your environment.

• List of feedbacks that were submitted to Oracle. This section helps you identify some of the issues that users faced.
- Number of unique users that used the environment for different ranges of durations.

- Top 10 most active users based on usage duration.
• Top 10 least active users based on usage duration.

### 10 Least Active Users by Usage Duration

<table>
<thead>
<tr>
<th>User</th>
<th>Usage Duration (Min:Sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>user:300</td>
<td>00:00</td>
</tr>
<tr>
<td>user:200</td>
<td>00:00</td>
</tr>
<tr>
<td>user:500</td>
<td>04:49</td>
</tr>
<tr>
<td>user:0092</td>
<td>04:50</td>
</tr>
<tr>
<td>user:0099</td>
<td>04:58</td>
</tr>
<tr>
<td>user:0032_1</td>
<td>06:23</td>
</tr>
<tr>
<td>user:0022_1</td>
<td>06:24</td>
</tr>
<tr>
<td>user:0023_1</td>
<td>06:24</td>
</tr>
<tr>
<td>user:0025_1</td>
<td>06:24</td>
</tr>
<tr>
<td>user:0029_1</td>
<td>06:24</td>
</tr>
</tbody>
</table>

**Interface Usage and Service Response Data**

The Activity Report presents the following information on user interface requests and service response:

• Percentage of UI requests that took more than 2 seconds to finish.

A UI request is a user action such as signing in, loading data, opening or saving forms, and validating rules. The section on the top 30 worst performing user actions identifies the user, duration of the action, the activity that the user was performing, and the screen that the user was on.

**Percentage of UI Requests over 2 Seconds (0.5%)**

- 0.2%
- 0.2%
- 0.3%

• Top 7 requests that took the most time to complete.
• Top 15 user interface requests that were executed most frequently.
Top 30 user interface actions that took more than 2 seconds to complete. By analyzing this data, you can identify optimizations that can improve performance.

Average service response time every hour for the last 24 hours.
- Number and duration of interface requests each hour.
Essbase Statistics

The following Essbase-related data is available:

- Number and type of Essbase operations each hour.

- Duration of Essbase operations each hour.

- Top 10 Essbase queries that were executed for the longest durations.
• Top 10 most frequently run Essbase queries.

<table>
<thead>
<tr>
<th>Total Duration (Min:Sec)</th>
<th>Executions</th>
<th>Essbase Query</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04:24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02:32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• Top 10 Essbase queries that took over 15 seconds to execute.

<table>
<thead>
<tr>
<th>Executions</th>
<th>Total Duration (Min:Sec)</th>
<th>Essbase Query</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>04:24</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>01:06</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>07:11</td>
<td></td>
</tr>
</tbody>
</table>

Analyzing the Essbase queries listed in this section helps you optimize the process to improve performance.

Calculation Script Statistics

The Activity Reports contains the following information about calculation scripts that were executed in the environment:
- Top 5 worst performing calculation scripts that took over one minute to execute.

<table>
<thead>
<tr>
<th>Duration (Min:Sec)</th>
<th>Begin Time</th>
<th>End Time</th>
<th>Context</th>
<th>Calc Script Command</th>
</tr>
</thead>
</table>
| 22:23              | 05:01:48   | 05:23:11 |         | Calc Script: Forecast_Casual ...
|                    |            |          |         | Blocks Read: 8,966 Blocks Updated: 104 Blocks Created: 0 |
| 21:58              | 05:04:11   | 05:25:43 |         | Calc Script: Forecast_Casual ...
|                    |            |          |         | Blocks Read: 8,966 Blocks Updated: 104 Blocks Created: 0 |
| 21:18              | 04:09:49   | 05:27:07 |         | Calc Script: Forecast_Casual ...
|                    |            |          |         | Blocks Read: 8,966 Blocks Updated: 104 Blocks Created: 0 |

- Top 10 calculation scripts by duration

This table identifies the business rules that were executed for the longest duration. Available information includes the name of the calculation script, the number of times the script was run, and the duration.

<table>
<thead>
<tr>
<th>Calc Script</th>
<th>Executions</th>
<th>Average Duration (Min:Sec)</th>
<th>Min Duration (Min:Sec)</th>
<th>Max Duration (Min:Sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Export: OLU</td>
<td>2</td>
<td>11.45</td>
<td>09:53</td>
<td>13.38</td>
</tr>
<tr>
<td>Fcst_Task</td>
<td>30</td>
<td>00:22</td>
<td>00:08</td>
<td>00:44</td>
</tr>
<tr>
<td>Load GL Actuals Current Year</td>
<td>9</td>
<td>00:11</td>
<td>00:07</td>
<td>00:26</td>
</tr>
<tr>
<td>Load GL Actuals Current Year 7 Closed Month</td>
<td>50</td>
<td>00:04</td>
<td>00:01</td>
<td>00:05</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>3</td>
<td>00:01</td>
<td>00:01</td>
<td>00:01</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>4</td>
<td>00:01</td>
<td>00:01</td>
<td>00:01</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>6</td>
<td>00:00</td>
<td>00:00</td>
<td>00:00</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>4</td>
<td>00:00</td>
<td>00:00</td>
<td>00:00</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>4</td>
<td>00:00</td>
<td>00:00</td>
<td>00:00</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>2</td>
<td>00:00</td>
<td>00:00</td>
<td>00:00</td>
</tr>
<tr>
<td>Fcst_RoomsMainCalc</td>
<td>18</td>
<td>00:00</td>
<td>00:00</td>
<td>00:00</td>
</tr>
</tbody>
</table>

- Top 10 calculation scripts by execution.
Top 10 worst performing calculation scripts.

<table>
<thead>
<tr>
<th>Executions</th>
<th>Calc Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>Weekly_Webform_Calculation</td>
</tr>
<tr>
<td>50</td>
<td>Load GL Actuals Current Year ? Closed Month</td>
</tr>
<tr>
<td>30</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>18</td>
<td>Fcst_GLMSBenefitsCalc</td>
</tr>
<tr>
<td>15</td>
<td>Weekly Task</td>
</tr>
<tr>
<td>9</td>
<td>Load GL Actuals Current Year</td>
</tr>
<tr>
<td>8</td>
<td>Fcst_OtherOperatedMain</td>
</tr>
<tr>
<td>8</td>
<td>Fcst_BanqCateringMainCalc</td>
</tr>
<tr>
<td>4</td>
<td>Fcst_OutRevOthExpCalc</td>
</tr>
<tr>
<td>4</td>
<td>Fcst_RoomsMainCalc</td>
</tr>
<tr>
<td>3</td>
<td>Fcst_RoomsMainCalc</td>
</tr>
</tbody>
</table>

Top 10 Worst Performing Calc Scripts

<table>
<thead>
<tr>
<th>Duration (Min:Sec)</th>
<th>Time (PST)</th>
<th>Application</th>
<th>Calc Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:38</td>
<td>02:03:11</td>
<td>PROPPLAN</td>
<td>Data Export: OLU</td>
</tr>
<tr>
<td>09:53</td>
<td>01:48:44</td>
<td>PROPPLAN</td>
<td>Data Export: OLU</td>
</tr>
<tr>
<td>00:44</td>
<td>18:50:40</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>00:43</td>
<td>18:43:53</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>00:43</td>
<td>18:55:08</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>00:43</td>
<td>19:10:53</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>00:26</td>
<td>21:01:21</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>00:26</td>
<td>18:37:30</td>
<td>PROPPLAN</td>
<td>Load GL Actuals Current Year</td>
</tr>
<tr>
<td>00:24</td>
<td>19:25:47</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
<tr>
<td>00:22</td>
<td>19:05:11</td>
<td>PROPPLAN</td>
<td>Fcst_Task</td>
</tr>
</tbody>
</table>

Manual Database Access Information

Manual access to the database by running SQL commands is prohibited except under emergency situations, for example, when an environment becomes unresponsive. The general process for addressing such emergencies involves Oracle responding to a service request filed on behalf of the subscriber. The service request should give explicit permission to Oracle to manually access the database to address issues. Statistics on manual access of the database available in the Manual SQL Executions section of the Activity Report includes the following:

- The time at which SQL commands were executed against the database
- The service request number based on which the database was manually accessed
- The SQL statements that were executed

This section of the report allows you to audit manual database activities. If you identify an unauthorized manual database access, add the information from this section to a service request so that Oracle can immediately investigate the incident and take remedial actions if needed.

Business Rules Information

The following information is available:

- Top 10 worst performing business rules that takes more than 30 seconds to run.

<table>
<thead>
<tr>
<th>Top 10 Worst Performing Business Rules over 30 Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration [Min:Sec</td>
</tr>
<tr>
<td>00:57</td>
</tr>
<tr>
<td>01:43</td>
</tr>
<tr>
<td>01:39</td>
</tr>
<tr>
<td>01:36</td>
</tr>
<tr>
<td>01:26</td>
</tr>
<tr>
<td>01:26</td>
</tr>
<tr>
<td>01:23</td>
</tr>
<tr>
<td>01:22</td>
</tr>
<tr>
<td>01:22</td>
</tr>
<tr>
<td>01:22</td>
</tr>
</tbody>
</table>

- Business rules that take more than 3 seconds to run.

<table>
<thead>
<tr>
<th>Business Rules Attached to a Form Taking Longer than 3 Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration [Min:Sec</td>
</tr>
<tr>
<td>00:03</td>
</tr>
<tr>
<td>00:03</td>
</tr>
</tbody>
</table>

Application Design Information

The following information is available:

- Application design changes that occurred during the last 24 hours.

This section provides an audit trail of application design changes, if any. Information available in this table includes application name, type and name of the modified design artifact, identity of the user who modified the artifact, and the time when the changes were made. Data changes are not reflected in this table.

<table>
<thead>
<tr>
<th>Application Design Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Name</td>
</tr>
<tr>
<td>Veen</td>
</tr>
</tbody>
</table>

- Essbase design metrics.

This section contains information related to the application such as the number of ASO and BSO cubes and their dimensions, and the highest number of total blocks in any Essbase cube.
• Application size
  This section of the report explores the size of the application. Information available includes the data size (includes the size of snapshots and files available in the inbox and outbox), size of Essbase data, and the size of the maintenance snapshot.

• Essbase BSO and ASO Cube Statistics
  These sections provide statistics about each ASO and BSO cube in the application.

---

### Essbase Design Metrics

<table>
<thead>
<tr>
<th>Metric Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essbase ASO Cubes</td>
<td>1</td>
</tr>
<tr>
<td>Max Essbase ASO Dimensions</td>
<td>16</td>
</tr>
<tr>
<td>Max Essbase ASO Total Size in MB</td>
<td>0</td>
</tr>
<tr>
<td>Essbase BSO Cubes</td>
<td>3</td>
</tr>
<tr>
<td>Max Essbase BSO Standard Dimensions</td>
<td>9</td>
</tr>
<tr>
<td>Max Essbase BSO Sparse Dimensions</td>
<td>7</td>
</tr>
<tr>
<td>Max Essbase BSO Dense Dimensions</td>
<td>2</td>
</tr>
<tr>
<td>Max Essbase BSO Attribute Dimensions</td>
<td>6</td>
</tr>
<tr>
<td>Max Essbase Total Blocks</td>
<td>33,570,013</td>
</tr>
<tr>
<td>Max Essbase Block Size in KB</td>
<td>259</td>
</tr>
<tr>
<td>Max Essbase Cells in Millions</td>
<td>1,116,370</td>
</tr>
<tr>
<td>Max Essbase Level 0 Blocks</td>
<td>7,541,116</td>
</tr>
<tr>
<td>Max Essbase Upper Level Blocks</td>
<td>26,028,897</td>
</tr>
<tr>
<td>Max Essbase Upper Level Blocks Percentage</td>
<td>78%</td>
</tr>
<tr>
<td>Max Essbase Page File Size in MB</td>
<td>171,007</td>
</tr>
<tr>
<td>Max Essbase Index File Size in MB</td>
<td>875</td>
</tr>
<tr>
<td>Max Essbase Hourglass Deviations on Dense</td>
<td>0</td>
</tr>
<tr>
<td>Max Essbase Hourglass Deviations on Sparse</td>
<td>14</td>
</tr>
</tbody>
</table>
Essbase BSO Cube Statistics

<table>
<thead>
<tr>
<th></th>
<th>Plan1</th>
<th>Plan2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Dimensions</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Standard Dimensions</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Dense</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sparse</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Attribute</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Block Size in Cells</td>
<td>6,417</td>
<td>598</td>
</tr>
<tr>
<td>Block Size in KB</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>Level 0 Blocks</td>
<td>28,493</td>
<td>192</td>
</tr>
<tr>
<td>Upper Level Blocks</td>
<td>969,151</td>
<td>5</td>
</tr>
<tr>
<td>Total Blocks</td>
<td>997,644</td>
<td>197</td>
</tr>
<tr>
<td>Upper Level Blocks %</td>
<td>97%</td>
<td>3%</td>
</tr>
<tr>
<td>Cells in Million</td>
<td>6,401</td>
<td>0</td>
</tr>
<tr>
<td>Page File Sizes in MB</td>
<td>629</td>
<td>0</td>
</tr>
<tr>
<td>Data Cache Setting in MB</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Index File Size in MB</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>Index Cache Setting in MB</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Hourglass Deviations on Dense</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Hourglass Deviations on Sparse</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Restructure</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Calc Execution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Dimensions in each cube.
- Displays outline and statistics of each cube in the application.

<table>
<thead>
<tr>
<th>Dimensions for Plan1 (BSO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Account</td>
</tr>
<tr>
<td>Period</td>
</tr>
<tr>
<td>Years</td>
</tr>
<tr>
<td>Scenario</td>
</tr>
<tr>
<td>Version</td>
</tr>
<tr>
<td>Currency</td>
</tr>
<tr>
<td>Entity</td>
</tr>
<tr>
<td>Product</td>
</tr>
<tr>
<td>Intercompany</td>
</tr>
<tr>
<td>Left</td>
</tr>
<tr>
<td>Cost Center</td>
</tr>
</tbody>
</table>
Most Recent Metadata Validation Errors and Warnings

This table indicates the validation errors and warnings (generally displayed in the Validate Metadata screen) from the newest Financial Consolidation and Close metadata validation within the last 24 hours. The title of this table indicates the time when you ran metadata validation, which may be different from the time at which the Activity Report was created.

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimension</th>
<th>Member Name</th>
<th>Cube Name</th>
<th>Validation Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>Account</td>
<td>Statistical</td>
<td>Consol</td>
<td>The consolid operator for all children of the dimension name should be Ignore or Newer</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>FX Exposure</td>
<td>Rates</td>
<td>The consolid operator for all children of the dimension name should be Ignore</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>2301</td>
<td>Rates</td>
<td>Account consolid operator should be addition based on parent and child account types</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>2981</td>
<td>Rates</td>
<td>Account consolid operator should be addition based on parent and child account types</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>2130</td>
<td>Rates</td>
<td>Account consolid operator should be addition based on parent and child account types</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>Investment</td>
<td>Detail</td>
<td>Account consolid operator should be subtraction based on parent and child account types</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>1730</td>
<td>Consol</td>
<td>Default data storage should match with Consol cube data storage</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>1730</td>
<td>Consol</td>
<td>Level 0 members should not be Dynamic Calc without member formulas</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>1740</td>
<td>Consol</td>
<td>Default data storage should match with Consol cube data storage</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>2130</td>
<td>Consol</td>
<td>Level 0 members should not be Dynamic Calc without member formulas</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>7230</td>
<td>Consol</td>
<td>Level 0 members should not be Dynamic Calc without member formulas</td>
</tr>
<tr>
<td>Error</td>
<td>Account</td>
<td>3500</td>
<td>Consol</td>
<td>Default data storage should match with Consol cube data storage</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>ActualLYRate</td>
<td>Consol</td>
<td>The consolid operator for all children of the dimension name should be Ignore or Newer</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>ActualLYRate</td>
<td>Rates</td>
<td>The consolid operator for all children of the dimension name should be Ignore</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>ActualBudRate</td>
<td>Consol</td>
<td>The consolid operator for all children of the dimension name should be Ignore or Newer</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>ActualBudRate</td>
<td>Rates</td>
<td>The consolid operator for all children of the dimension name should be Ignore</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>Plan</td>
<td>Consol</td>
<td>The consolid operator for all children of the dimension name should be Ignore or Newer</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>Plan</td>
<td>Rates</td>
<td>The consolid operator for all children of the dimension name should be Ignore</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>Forecast</td>
<td>Consol</td>
<td>The consolid operator for all children of the dimension name should be Ignore or Newer</td>
</tr>
<tr>
<td>Error</td>
<td>Scenario</td>
<td>Forecast</td>
<td>Rates</td>
<td>The consolid operator for all children of the dimension name should be Ignore</td>
</tr>
</tbody>
</table>

CPU and Memory Usage Statistics

The following information on CPU and memory usage is available:

- CPU usage for Essbase and application server.

![CPU Usage Graph](image)

- Memory usage for Essbase and application server.
Browser, Smart View, and Excel Usage Information

The following information is available:

- Oracle Smart View for Office versions being used and the number of users who used them.
- The 10 most active Smart View users who did not use the current version of Smart View.
- Top 10 users who used older versions of Smart View.
- 10 Most Active Smart View users on Older Versions of Microsoft Excel
- Microsoft Excel Versions in use and the number of users who used them.
- The versions of the browsers that were used to access the service and the number of users who used them.
- Unsupported browser versions and the number of users who used them.

About Access Logs

The Access Log, which helps Service Administrators understand application usage by each active user, is automatically generated. It contains information on users who logs into the environment directly or by using tools such as EPM Automate.

The Access Log for the day will not be available if you cancel the daily maintenance of the environment.
To view and download Activity Reports and Access Logs:

1. Access the service. See Accessing EPM Cloud.
2. Perform an action:
   - **Profitability and Cost Management only:** Click Application, then Application, and then Performance.
   - **Account Reconciliation only:** Click Tools, and then Service Activity.
   - **Other services:** Click Application, then Overview, and then Activity Reports.
3. Perform an action:
   - To open an activity report, click View under Activity Report in the row that indicates the day for which you want to view the report. Activity Reports created during Provide Feedback uses Feedback as the prefix.
   - To view and download an access log, click Download under Access Log in the row that indicates the day for which you want to download the log.

**Automating Activity Report and Access Log Download**

Use the downloadfile EPM Automate command to download activity reports and access logs to a local computer if you need them for audit purposes.

Oracle provides you a script that demonstrates how to use the downloadfile command to automate file download process. For detailed information, see these topics in *Working with EPM Automate for Oracle Enterprise Performance Management Cloud*:

- Automate Activity Report Downloads to a Local Computer
- Download Access Logs from an Environment
- Automating Script Execution
- Installing the EPM Automate
- Running the EPM Automate
Using the Role Assignment Report to Monitor Users

You use the Role Assignment Report to identify users who are assigned predefined roles that enable them to access an environment. Additionally, this report displays the number of users of an environment and the application-level role assignment of each user.

You can use Access Control to generate and download the Role Assignment Report. Services other than Narrative Reporting can also use the EPM Automate to generate and download the Role Assignment Report.

Using Access Control to Generate the Role Assignment Report

To generate and download a Service Administrator Report:

1. Access the service as a Service Administrator. See Accessing EPM Cloud.
2. On the Home page, Click Tools, and then Access Control.
3. Click Role Assignment Report.

The service displays the Role Assignment Report, which shows the number of authorized users, their roles, and how those roles are granted.

Using a Script to Automate the Process

Using EPM Automate, you can automate the process of creating the Service Administrator Report and counting the number of users who are assigned to predefined roles in an environment. See “Scenario 12: Counting the Number of Users Assigned to Roles” in Working with EPM Automate for Oracle Enterprise Performance Management Cloud.

Monitoring Environments Using Oracle Cloud Applications

Oracle Cloud provides two applications—My Services and My Account—to monitor environments. My Services application provides both summary and detailed information to monitor active environments belonging to one identity domain. You use the My Account application to monitor environments across multiple data centers and identity domains.
A dashboard that provides an overview of the health of active applications over a period of 14 days is available in Oracle Cloud. You can view historical service status, outages, and uptime percentage for a specific day by hovering over the cell for the specific application.

You can drill down to each application listed in the dashboard to gather detailed information. For Oracle Cloud, data is presented in the following default metrics:

- Number of users
- Average user interface response time (ms)
- Size of data (GB)

## Helping Oracle Collect Diagnostic Information Using the Provide Feedback Utility

Use the Provide Feedback utility to help Oracle diagnose and resolve issues efficiently. This utility is available within your Oracle Enterprise Performance Management Cloud environment.

If you encounter an issue while using the service, use the Provide Feedback utility to describe the issue and the steps to reproduce it. To expedite the resolution of issues, Oracle recommends that you add multiple screenshots to your feedback submissions. Adding a succession of screenshots that show your progress through a task enables you to create a storyboard that shows Oracle how to recreate your issue.

Each time a user submits feedback to Oracle using the Provide Feedback utility, a feedback notification, a subset of the information that a user submits, is sent to Service Administrators and to the user who submits the feedback. These notifications enable Service Administrators to review submitted issues and suggest corrective actions. Feedback notification is enabled by default.

Each Service Administrator can turn off the notification by clicking the Unsubscribe link embedded in the email. See Disabling Feedback Notification. Regardless of the subscription status, a notification is always sent to the user who submits the feedback.

### For services other than Narrative Reporting

You can also provide feedback (text only) to Oracle using the feedback EPM Automate command if the user interface becomes unresponsive. See "Command Reference" in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for details.

[Watch this video](#) for an overview of the information that you need to submit to quickly resolve issues.

[Watch this video](#) for an overview of the process of collecting and submitting information using Provide Feedback.

## Submitting Feedback Using the Provide Feedback Utility

### For services other than Narrative Reporting

While submitting feedback, Service Administrators can consent to submit the last maintenance snapshot of the environment to Oracle. Oracle uses the submitted application snapshot for testing
purposes only; Oracle does not make changes to the application or data. If you consent to submit the maintenance snapshot, Oracle automatically encrypts and copies the log files and the current maintenance snapshot.

Note:

• It is your responsibility to keep backup copies of the maintenance snapshot for recovery purposes. Oracle cannot restore your service using the snapshot that you submit. See Backing Up and Restoring an Environment Using the Maintenance Snapshot.

• Using the Provide Feedback utility to submit diagnostic information sends your submission to Oracle but does not create a service request. If a Service Administrator cannot resolve the issue, then you can create a service request using the information that you submit. While creating the service request, you are prompted for the reference number, which is displayed on the screen when you submitted diagnostic information using the utility. Additionally, the reference number is included in the feedback notification email. Entering the reference information helps Oracle to easily collect the required diagnostic data.

Before providing feedback, ensure that you are at the stage in the process when the problem was observed.

To provide feedback:

1. While you are in the screen about which you want to provide feedback, access the Provide Feedback utility using one of these options.
   • Click your user name (displayed at the right top corner of the screen), and then select Provide Feedback.
   • For business processes other than Oracle Enterprise Data Management Cloud: If you are in an Access Control or Migration modal window, click (User Assistance) and then select Provide Feedback.

2. In Give a brief description, describe the issue that you encountered.

3. Optional: Select an option to highlight or darken areas of the screen.
   • Select Highlight, and then click and drag on the screen to highlight portions of the screen; for example, to highlight errors or issues.
   • Select Darken, and then click and drag on the screen to hide portions of the screen. Use this option to hide sensitive data from the screenshot.

4. Click (Add button) to capture the screenshot.

5. Optional: Add additional screenshots:
   a. Navigate to the new screen that you want to capture.
   b. Click (Add).
   c. Optional: Select an option to highlight or darken areas of the screen, and then click and drag on the screen to highlight or darken an area.
   d. Describe your issue or the actions that you performed in the current screen.
e. Click Add.

f. Repeat these steps to add more screenshots.

6. Click Submit.

7. Review the browser, environment, and plug-in information. Click (Next) to review screenshots.

8. Optional: If you are a Service Administrator, allow Oracle to access the maintenance snapshot.


b. In Submit application snapshot, click Details to view information about how Oracle uses the snapshot.

c. Select the radio button to indicate that you agree to submit the application snapshot to Oracle.

9. Click Submit.

10. Optional: If you need Oracle's assistance to resolve this issue, follow the instructions on the screen to log a service request. While creating the service request, be sure to enter the reference number that is displayed on the screen. The reference number is included in the feedback notification email also.

11. Click Close.

Disabling Feedback Notification

By default, Service Administrators get a feedback notification each time a user submits feedback to Oracle. Each recipient can unsubscribe from the notification mailing list.

Service Administrators use the information included in the notification to review the issue and suggest corrective actions.

If you unsubscribe, feedback notification are disabled for you after the next daily maintenance of the environment. You will, however, continue to receive notification of any feedback that you submit.

Note:

If you disable feedback notification, you cannot enable it again.
To disable feedback notification:

1. Open the feedback notification email (sent by EPM Cloud User Feedback), and then click **Unsubscribe**.
2. Sign in to the environment if prompted.
3. Click **Unsubscribe**.
4. Click **Close**.

### Rebranding EPM Cloud Environments

You can customize your environments for easy recognition; for example, to distinguish your test environment from the production environments or to distinguish one service type from another.

#### Customizable UI Elements

You can change the following to rebrand an environment:

- The background image that displays on the Home page
- The default display theme, which changes the color scheme of the user interface
- The Oracle logo, which appears at the right top corner of the Home page

**Note:**

Oracle Enterprise Data Management Cloud environments cannot be rebranded. Not all Oracle Enterprise Performance Management Cloud services offer identical customization options.

The logo and background image that you use must be accessible using a URL: you cannot import them into EPM Cloud environments. Oracle does not store or maintain them.

#### Logo Requirements

Logo images smaller than 125 pixels wide and 25 pixels are displayed without resizing them. For large image logos, Oracle recommends that you maintain a 5:1 ratio so the image can be scaled without distortion.

#### Background Image Requirements

The default size for the background image is 1024x768. If you use a larger background image, the image is scaled to fit the resolution setting of your display. If you want your background image to fit both a browser and a mobile device, Oracle recommends that you size the image so that it fits your biggest screen (or highest resolution device). The background image is centered horizontally.

To customize the appearance of your environment:

1. Access the environment as a Service Administrator. See **Accessing EPM Cloud**.
2. Perform an action:
• **All services other than Narrative Reporting:** Click **Tools** and then **Appearance**.

• **Narrative Reporting only:** Click **Appearance**.

3. **Optional:** To use a custom logo, in **Logo Image URL**, enter a web address at which the logo image is available.

4. **Optional:** To change the background image, in **Background Image URL**, enter a web address where the image is available.

5. **Optional:** To change background color (if this option is available):
   - **Profitability and Cost Management only:** From **Background color**, select a color scheme.
   - **Other Services:** From **Theme**, select a color scheme.

6. **Optional:** To change the shape of screen corners (if this option is available), from **Shape**, select **Oblong**, **Round**, or **Square**.
   - This setting is not available for Profitability and Cost Management and Narrative Reporting environments.

7. Save the settings that you specified.

---

**Understanding Encryption Levels and Session Timeout**

Oracle Enterprise Performance Management Cloud uses Transport Layer Security (TLS) with SHA-2/SHA-256 Cryptographic Hash Algorithm to secure communication and data.

### Encryption Level for Browsers, Smart View, and the EPM Automate

EPM Cloud uses Transport Layer Security (TLS) with SHA-2/SHA-256 Cryptographic Hash Algorithm to secure communication with browsers, Oracle Smart View for Office, and the EPM Automate.

Oracle recommends that you install the newest version of the supported browser. Generally, the newest version is compatible with higher cipher strengths and has improved security. See Supported Browsers.

### Encryption Level for SAML Messages to Identity Providers

- **Oracle Access Manager**, which is the default EPM Cloud Service Provider (SP), uses the MD5 algorithm to sign SAML messages to the Identity Provider (IdP) that you configured when setting up SSO. See Securing EPM Cloud.

- If your IdP, for example, SiteMinder, indicates that the signature validation of authentication request from the SP fails because it is signed using MD5 while the IdP supports only newer algorithms (such as RSA), create a service request.
  - Sign in to My Services.
  - Create a service request containing an Exception Request asking Oracle to provide SSO SP XML metadata (in SHA-256 format). In the service request, indicate **Hosting Services Problem Type**.

On receiving the service request, Oracle will attach the SP metadata in SHA-256 format to the service request, which you can extract and upload to the IdP.

- EPM Cloud relational data is encrypted using Transparent Data Encryption (TDE).
Session Timeout Settings

The service automatically terminates inactive user sessions after 75 minutes.

Smart View terminates sessions after 75 minutes or the HTTP session timeout specified for Internet Explorer, whichever is shorter.

Configuring SPF Record for Oracle Cloud Email Verification

Oracle publishes the Sender Protection Framework (SPF) policy that identifies the Oracle server IP addresses and subnets that are permitted to send cloud services emails.

You can use the SPF policy information to assess the validity of the messages to determine whether or not to accept them. Additionally, you can use the information as a part of the message protection services.

Add the following lines in your SPF record to take advantage of this protection:

```
v=spf1 include:spf_c.oracle.com include:spf_a.oracle.com -all
```

Retrieving Data After Service Termination

You need an Identity Domain Secure File Transfer Protocol (SFTP) Account to retrieve the archived data of a terminated Oracle Enterprise Performance Management Cloud environment.

You use the SFTP Account that you configured by resetting its password. You cannot retrieve the archived data if the Identity Domain SFTP Account password was not reset before terminating the service. For more information, see these topics in Managing and Monitoring Oracle Cloud:

- Setting Up Secure FTP User Accounts
- Terminating Your Paid Subscription to an Oracle Cloud Service
Troubleshooting EPM Cloud Issues

How often have you looked for steps to troubleshoot issues in Oracle Enterprise Performance Management Cloud business processes? Issues discussed include improving performance of consolidation process, business rules, and Financial Reporting reports.

In This Section:
- Creating a Backup Snapshot
- Reviewing the Activity Report to Identify Performance Bottlenecks
- Resolving Login Issues
- Dealing with Down Environments
- Resolving Import and Export Errors
- Resolving EPM Automate Issues
- Resolving User, Role, and Group Management Issues
- Optimizing Slow Business Rules
- Resolving Form Performance Issues
- Handling Unexpected Timeouts During Database Refresh
- Resolving Performance Issues with Smart Push
- Making Financial Reporting Reports More Efficient
- Fixing Smart View Issues
- Diagnosing Consolidation Failures and Performance Issues in Financial Consolidation and Close
- Troubleshooting Data Load Performance Issues
- Resolving Other Performance Issues
- Handling Financial Consolidation Data Inaccuracies
- Responding to Customer Diagnostic Alerts
- Getting Help From Oracle
- Understanding Access Limits
- Monitoring the Service
- Managing User Accounts
- Client Compatibility
- Best Practices for Production Environments

Creating a Backup Snapshot

All troubleshooting activities must be performed in a test environment.
Begin by creating a backup of the application in the current environment and downloading it to a local computer. See these information sources:

- Backing Up and Restoring an Environment Using the Maintenance Snapshot in *Getting Started with Oracle Enterprise Performance Management Cloud for Administrators*
- Backing Up Artifacts and Application in *Administrating Migration for Oracle Enterprise Performance Management Cloud*

### Reviewing the Activity Report to Identify Performance Bottlenecks

Generated automatically every day, the Activity Report helps identify issues that may impact the performance of your application. See *Using Activity Reports and Access Logs to Monitor Usage*. Specifically, carefully review the following sections of the Activity Report to identify areas that you may streamline to improve performance:

- **Number of Users**: This section helps you determine if there is a correlation between the number of users and the performance of the application.

- **Top 7 User Interface Requests by Duration**: This section, which identifies the top seven user actions by duration, provides you a starting point to identify why these actions take time to complete.

- **Top 30 Worst Performing User Interface Actions over 2 Seconds**: This section, which identifies the worst performing actions and objects (for example, rule), helps identify artifacts that you need to evaluate to improve performance.

- **Top 10 Worst Performing Business Rules over 30 Seconds**: This section identifies the business rules that take the most time to run, and are candidates for optimization.

- **Top 5 Worst Performing Calc Scripts Commands over 1 Min**: This section identifies specific sections in a rule that takes a long time to execute and should be reviewed to improve performance.

- **Top 10 Worst Performing Essbase Queries over 15 seconds**: This section lists the worst performing Essbase queries, which may be optimized to yield better performance.

### Resolving Login Issues

This section lists common issues related to logging into Oracle Enterprise Performance Management Cloud using VPN, using vanity URLs, and connecting with Oracle Smart View for Office.

#### Resolving connection issues

If you can connect to websites outside of your organization's network, but cannot connect to EPM Cloud:

- Verify that the connection URL and the credentials you are using are valid.

  If your environments are configured for SSO but you are not setup to use identity domain credentials make sure that you are using your SSO credentials.
• Check if you can connect to the service from a different network (a wireless network or outside your organization’s network).

• Verify that the browser is configured for EPM Cloud. See:
  – Configuring Internet Explorer
  – Configuring Firefox

• Verify that EPM Cloud and Oracle domains (cloud.oracle.com and oraclecloud.com) are not blacklisted.

• If you are using Virtual Private Network (VPN), connect to EPM Cloud without using VPN. If the connection is successful, the issue may be related to your VPN setup or internet proxy settings. Contact your network administrator for help.

Resolving login failures when connecting to EPM Cloud through VPN

Connect to EPM Cloud without using VPN to ensure that the EPM Cloud URL and credentials are valid. If you can access the service, connectivity issue may be localized to the following, which requires help from your network administrator:

• Internet proxy setting on your computer
• Your organization’s VPN setup

Deciding which sign in option to use when two options are available

In SSO-enabled environments, a sign in screen similar to the following is displayed for users who are permitted to maintain identity domain credentials; typically, Identity Domain Administrators and Service Administrators who need to use clients such as EPM Automate.

![Sign in screen](image)

You may sign in using the **Company Sign In** option to access the environment using your SSO credentials. Alternatively you can use your identity domain credentials to access EPM Cloud environments.

Using vanity URLs for redirection

Vanity URLs are not supported for accessing EPM Cloud.

Getting Help

If the preceding solutions do not resolve your login issues, seek Oracle’s help. See **Getting Help From Oracle**.

• Generate a Fiddler trace file of your log in session, if possible. See **Using Fiddler to Capture Diagnostic Information**.
If you are unable to generate a Fiddler trace file of your session, see Collecting Network Performance Trace Using a Browser for information on collecting network trace using a browser.

- Create a service request and provide the following to Oracle. See Submitting a Service Request.
  - Fiddler trace or HAR file if possible
  - Screenshot of the error
  - Date, time, and time zone when the error occurred.
  - URL of the environment
  - Specify if the error occurred for a specific user or for all users
  - Specify whether the error occurred at one or all locations
  - If you are able to log in later, create a Provide Feedback submission and include its reference number in the service request. See Creating a Provide Feedback Submission.

Dealing with Down Environments

Use the standard operating procedures in this section to fix issues with down Oracle Enterprise Performance Management Cloud environments.

1. Restart the environment.
   Use the `resetService` EPM Automate command to restart the environment. Restarting an environment does not affect application. However, sessions of currently connected users will be terminated and any unsaved data is lost. See EPM Automate Commands in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for command usage and example.

2. If restarting the environment does not resolve the issue, create a service request. See Submitting a Service Request. The service request must contain the following additional information:
   - Screenshot of the error message or a detailed description of the behavior of the environment.
   - The date, time, and timezone when the environment went down.

Resolving Import and Export Errors

Migration supports two types of exports: backup of the environment and incremental export of artifacts. When you backup the environment, you create a snapshot of the environment, similar to the maintenance snapshot, by exporting the application with all of its data and artifacts. You export from an environment to create an incremental backup of specific artifacts.

About Exports

The Migration Status report, which is displayed after you initiate the export operation from Migration, indicates Failed as the status if the operation fails for any reason. Click Failed in the report to open the Migration Details screen, which indicates why the export failed and the corrective action. You can attempt the export operation again after correcting the error that caused the export to fail.
About Imports

You import snapshots to create a clone of another environment or to migrate artifacts from another environment.

You cannot import a backup snapshot into an environment where an application already exists. If you want to import a backup snapshot into an environment with an existing application, first run the `recreate` EPM Automate command (with `removeAll=false` setting) to restore your environment to a clean state, and then import the backup snapshot. See EPM Automate Commands in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for command usage and example.

You import specific artifacts from a backup snapshot or an incremental snapshot to migrate artifacts from one environment to another. For example, you can import a snapshot of tested artifacts from a test environment into a production environment. Similarly, you can import Essbase data and artifacts from an incremental snapshot created by exporting them from another environment.

The Migration Status report, which is displayed after you initiate the import operation from Migration, indicates Failed as the status if the import fails for any reason. Click Failed in the report to open the Migration Details screen, which indicates why the import failed and the corrective action. You can attempt the operation again after correcting the error that caused the import to fail.

Getting Help

If import or export continues to fail after you correct the errors reported in the Migration Status report, seek help from Oracle.

To get help from Oracle:

1. Create a Provide Feedback submission, which includes screenshots of the import or export process.
   Be sure to authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

2. Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. Ensure to attach additional screenshots, if needed, to the service request.

Resolving EPM Automate Issues

This section lists common issues that you may encounter while using EPM Automate and how to resolve them.

Resolving session failures if the environment is configured for SSO with an identity provider

The EPM Automate does not work with SSO (identity provider) credentials that you use to access Oracle Enterprise Performance Management Cloud or Oracle Smart View for Office.

If the service is configured for SSO, an Identity Domain Administrator must enable EPM Automate users to sign in with their identity domain credentials.
See Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO.

Also, see "Enabling Sign In With Identity Domain Credentials" in Administering Oracle Cloud Identity Management.

Resolving script execution failures after changing EPM Cloud password

You will receive periodic password expiry warnings from oraclecloudadmin_ww@oracle.com. after changing your EPM Cloud password, EPM Cloud credentials are required to run EPM Cloud. Scripts that use EPM Cloud credentials will fail to run after you update identity domain password.

If you use an encrypted password file to run scrips, update your password encryption file to reflect the new password. See the encrypt command in EPM Automate Commands in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for command usage and examples. If you use plain text passwords in scripts, be sure to update them.

Resolving EPMAT-11 Internal Server Error, Connection timed out

This error is displayed if a connection cannot be established because of a bad URL or invalid proxy settings on the computer.

- Verify that you are using a valid URL
- If your organization requires the use of a proxy server to connect to the internet, verify that the proxy setting in Internet Explorer is accurate.

If your proxy settings require you to authenticate with the proxy server, then you must enter the proxy server domain, user name, and password as parameters to the login command. Contact your network administrator for help with proxy server domain name and credentials. See the login command in "Working with EPM Automate for Oracle Enterprise Performance Management Cloud" for usage information and examples.

Resolving EPMAT-11: Unable to connect to URL error when connecting from a Linux computer

This error can occur if proxy settings are not specified in environment variables.

On Linux computers, verify that the following environment variables are set. The utility looks for the value of these variable to determine proxy settings:

- proxyHost
- proxyPort
- https.proxyHost
- https.proxyPort

Resolving Unsupported protocol: https error when connecting from a Windows computer

This error can occur if the SSL certificate of the proxy server is not installed in the JRE being used by EPM Automate.

EPM Automate is not able to establish a trusted communication channel with the proxy server because the certificate store (C:\Oracle\EPM Automate\jre1.8.0_111\lib\security\cacerts) does not contain the required certificate to secure communication.
between EPM Automate and the proxy server that you use to channel internet communications.

Work with the IT Administrator of your Windows network to identify the required certificate. Generally, this certificate is available on your computer; you need to import it into the certificate store used by EPM Automate.

To install the proxy server SSL certificate in EPM Automate JRE:

1. Create a backup copy of EPM Automate certificate store (generally, C:\Oracle\EPM Automate\jre1.8.0_111\lib\security\cacerts
2. From Windows Settings, search for, and open Internet Options
   Internet Properties is displayed.
3. On Content, click Certificates.
4. On Certificates, open Trusted Root Certification Authorities.
5. Select the authority that issues the proxy certificate and then export it. You will be asked for the name and location for an export file.
6. In a Command Prompt window, navigate to C:\Oracle\EPM Automate\jre1.8.0_111\bin and run the keytool:
   ```
   keytool -import -alias CA_NAME -keystore "C:\Oracle\EPM Automate\jre1.8.0_111\lib\security\cacerts" -file EXPORTED_FILE_NAME, where
   CA_NAME is the name of the certificate authority and EXPORTED_FILE_NAME is the location and name of the exported certificate file. for Example:
   ```
   ```
   keytool -import -alias "Certum CA" -keystore "C:\Oracle\EPM Automate\jre1.8.0_111\lib\security\cacerts" -file "C:\Oracle\EPM Automate\Certum_CA.cer"
   ```
7. Enter changeit when prompted for password.

Handling login failures after switching networks

After you switch from one network to another, initial EPM Automate login attempt fails because of the change in the MAC address of the client machine. For example, this failure occurs at your first login attempt after you switch from a wifi connection to a LAN connection.

To resolve this error, sign in again to make EPM Automate use the current MAC address.

Getting Help

If your issue persists after trying the preceding tips, seek help from Oracle Support. See Getting Help From Oracle.

Submit the following:

- **If you can sign into your environment using EPM Automate:**
  - Sign in to your environment.
  - Upgrade to the latest version of EPM Automate by running the upgrade command.
    - epmAutomate upgrade
  - Check if your issue is resolved.
If your issue persists, create a Provide Feedback submission using the feedback command. Be sure to attach relevant EPM Automate-based script files that you are using. For example:
```bash
epmAutomate feedback "ListFile command in example.ps1 failed" file=example.ps1
```
- **If you cannot sign into your environment using EPM Automate:**
  Use an EPM Cloud screen to create a Provide Feedback submission. See Creating a Provide Feedback Submission for information on providing feedback from EPM Cloud screens.
- A service request that identifies the Provide Feedback reference number. See Submitting a Service Request for instructions.

## Resolving User, Role, and Group Management Issues

Use this information to resolve cases where user, role, or group management processes completed using EPM Automate or My Services are not reflected in the environment.

Sometimes, a role assignment may not take effect in an environment. For example, a user who was recently assigned a role in My Services may get Not Allowed error while accessing the environment.

If the issue persists, seek help from Oracle.

1. Create a Provide Feedback submission. Be sure to authorize Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

2. Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. Ensure to attach the following to the service request.
   - Screenshot of the My Services screen showing the roles assigned to the user.
   - The current Role Assignment report available in the environment.
   - A detailed description of the problem.

## Optimizing Slow Business Rules

How often have you asked the question "How can I optimize slow business rules identified in the Activity Report?". This section describes the steps involved in optimizing slow business rules.

Optimization Steps include:

1. **Reviewing the Activity Report to Identify Candidates for Optimization**
2. **Identifying Areas for Rule Optimization**
3. **Optimizing Rules: An Example**

### Reviewing the Activity Report to Identify Candidates for Optimization

The Activity Report contains information on the impact of the calculation scripts used by the application to overall performance.
See Reviewing the Activity Report to Identify Performance Bottlenecks. Carefully review the following sections of the report to identify the business rules that are taking the longest time to execute.

- **Top 10 Worst Performing Business Rules over 30 Seconds**, which identifies the business rules that take the most time to run, and are candidates for optimization.

- **Top 5 Worst Performing Calc Scripts Commands over 1 Min**, which identifies specific sections in a rule that takes a long time to execute and should be reviewed to improve performance.

Begin by identifying the name of the calculation scripts that are reported as being the worst performers. For example, the areas highlighted in red, in following illustration shows the name of the scripts reported among top 5 worst performing scripts.

### Identifying Areas for Rule Optimization

Run the slow performing business rule from Calculation Manager to identify the steps that take the longest time.

#### Note:

You cannot run Consolidation and Close rules directly from Calculation Manager because the run time parameters that are required to execute rules cannot be specified from Calculation Manager.

To identify steps that take the longest time:

1. Launch Calculation Manager.
   a. Sign in to the environment as a Service Administrator.
b. On the Home page, click Navigator, and then, from Create and Manage, select Rules.

2. Locate and then double-click the rule to open it.

3. Click Launch to run the rule.

4. Input the required runtime parameters and click OK.

5. Click Log Messages to open the log file.

6. Assess the log messages, paying special attention to how the total business rule execution time is spread across the number of calculation passes. Identify the following, which are candidates for optimization.

   - Passes that consume a bulk of the total rule execution time.
     For example, in the preceding illustration, pass 3 takes the most time to complete (0.187 seconds) and occupies 96.392% of the pass time, indicating that it is a prime candidate for optimization. The start of a new pass is shown in bold. Review the Pass # and Pass % columns to determine which pass is consuming most of the rule execution time.

   - Messages that indicate dynamic calc dependencies. Dynamic calc dependency messages identify member formulas that are dependent on another dynamically calculated member. Dynamic calc dependency, especially dependencies on sparse dynamically calculated members, can slow the overall calculation performance.
XREF session messages. XREF session messages indicate that a member formula contains a member that is calculated by referencing a member in another cube. XREF sessions can slow the overall calculation performance.

Note:

Use of CALCPARALLEL and FIXPARALLEL for concurrent processing in business rules by many users may result in slow performance because such rules consume more resources compared to business rules that are processed serially.

A single invocation of a business rule that uses CALCPARALLEL and FIXPARALLEL may perform acceptably. However, overall performance will deteriorate if multiple concurrent users execute such business rules (same or different). As more users concurrently run calculations with CALCPARALLEL and FIXPARALLEL, resource usage increases and may reach capacity thereby decreasing the overall performance. Do not use CALCPARALLEL and FIXPARALLEL for business rules run by end users. Also, do not use CALCPARALLEL and FIXPARALLEL for business rules run in batch that are run concurrently with end user business rules.

Optimizing Rules: An Example

After identifying the passes to optimize, edit the business rule. Ensure that the optimal logic and conditions are specified for each pass.

Consider the following business rule definition, which calculates two YTD accounts and then aggregates the values through the Product and Entity dimensions:

```plaintext
SET UPDATECALC OFF;
/* PASS 1 BEGINS*/

FIX (*BaseData*,*Plan*,"FY17", "FY16")
"BU Version_1"(
    IF(@ismbr("Jan"))
      "4110_YTD" = "4110"; "4120_YTD" = "4120"; "4130_YTD" = "4130";
      "4140_YTD" = "4140"; "4150_YTD" = "4150";
    Else
      "4110_YTD"="4110" + @prior("4110_YTD"); "4120_YTD"="4120" + @prior("4120_YTD");
      "4130_YTD"="4130" + @prior("4130_YTD"); "4140_YTD"="4140" + @prior("4140_YTD");
      "4150_YTD"="4150" + @prior("4150_YTD");
    Endif)

/*  PASS 1 ENDS -- PASS 2 BEGINS*/

Agg("Entity","Product");

/*  PASS 2 ENDS */

ENDFIX
```
On running this rule in Calculation Manager (see Identifying Areas for Rule Optimization), the Log Message tab shows a message similar to the following when Pass Only is selected:

An analysis of the information in the log file indicates that 99.995% of the execution time (79.235 seconds) is spent on pass 1, and only 0.005% on pass 2.

If you deselect Pass Only, blocks, read, and write information similar to that shown in the following illustration is displayed:

The preceding rule definition has these issues:

- It does not have a FIX on Entity and Product dimensions, thereby forcing all the rules to be run on all levels of Entity and Product dimensions.
- Pass 1 needlessly calculates the upper levels. The Agg function in pass 2 does this and overwrites what is done in pass 1.

The script can be optimized as follows:

```
SET UPDATECALC OFF;
FIX ("BaseData","Plan","FY17")

/* PASS 1 BEGINS*/

Fix(@LEVMBRS("Entity",0), @LEVMBRS("Product",0))
    "BU Version_1"(
        IF(@ismbr("Jan"))
            "4110_YTD" = "4110";
            "4120_YTD" = "4120";
        Else
            "4110_YTD"="4110" + @prior("4110_YTD");
            "4120_YTD"="4120" + @prior("4120_YTD");
        Endif)

ENDFIX
```
On running the updated rule in Calculation Manager (see Identifying Areas for Rule Optimization), the Log Message tab shows a message similar to the following:

An analysis of the information in the log file indicates that the execution time taken in pass 1 is 15.901 seconds less compared to the previous run.

If you deselect Pass Only, blocks, read, and write information similar to that shown in the following illustration is displayed for pass 1:

A comparison of the blocks, read, and write information with similar data from pre-optimization indicates an across the board reduction in the processing statistics of the business rule.

Getting Help

If you were unable to optimize the rule using the information in the preceding sections, review these factors before seeking help from Oracle, especially if the issue manifested itself recently:

- Recent changes to the application

  Compare the following tables in the Activity Report with the information available in an Activity Report from a previous date when the rule was working well. This comparison will help you identify application design changes that have taken place between the two dates:
  - Application Size
  - Essbase BSO Cube Statistics
Recent changes to the use of the impacted business rule (for example, different values of run-time prompts, change in user or substitution variables, more concurrent users, etc.)

Re-run the rule in Calculation Manager and export the log messages output. Then use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. See Helping Oracle Collect Diagnostic Information Using the Provide Feedback Utility.

If log messages cannot be exported for any reason, be sure to include the rule name and the timestamp (and timezone) of the start and end time of the rule run.

Submit a service request indicating the reference number that the Provide Feedback utility created.

Answer these questions:
1. When was the issue first observed? (required)
2. Was there any recent application or rule usage change that could have caused this issue? (optional)

Provide the following to Oracle:
- Rule name (if you are using a ruleset, run each rule in Calculation Manager to determine the specific rule that you want Oracle to review)
- Value of all runtime prompts
- Values of all user and substitution variables
- Expected and actual durations
- Exported log messages output generated while running the rule in Calculation Manager
- Business purpose of the calculation shown in the longest running pass of the rule (available in log messages under Pass%)
- The timestamp and timezone of the start and end time of the rule run

See Getting Help From Oracle.

Resolving Form Performance Issues

Performance issues in forms may be caused by factors such as business rule execution settings and the complexity of business rules. Other factors impacting performance include database design, the number of cells on the form, and dynamic content in the form.

Use the procedures in this section to identify and correct issues that may cause unacceptable Planning forms performance.

1. Review the Activity Report, which contains information on the impact of business rules on performance. Specifically, review the Business Rules Attached to a Form Taking Longer than 3 Seconds section of the report to determine if an attached business rule is causing poor performance. Use the instruction in Optimizing Slow Business Rules to optimize business rules attached to the form.

2. If performance does not improve after completing the preceding steps, review the application design, the number of cells on the form, and dynamic content in the form in order to improve the performance.
Also, ensure that the member data storage property of all Level 0 members that do not use a member formula is set to *Never Share*.

3. If performance still does not improve, seek help from Oracle.
   - Create a Provide Feedback submission, which includes screenshots of the form as you run it in your environment.
     Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.
   - Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. The service request must contain the following additional information:
     - Name and path of the form, all POVs, and all user and substitution variables being used
     - Expected performance parameters and actual results
     - If the performance of the form was acceptable previously, but is not now, the date, time, and timezone when performance was acceptable.
     - Snapshot of the environment, if available, from the last time when the performance of the form was acceptable.
     - Form changes that you made since the last time when the performance was acceptable.

### Handling Unexpected Timeouts During Database Refresh

Seek help from Oracle if database refresh results in timeouts or does not perform as you expect.

1. Create a Provide Feedback submission that captures your actions while refreshing the database.
   Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

2. Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. The service request must contain the following additional information:
   - If the process was working and performing better previously, but is not now, the date, time, and timezone when the process was working as expected.
   - Snapshot of the environment, if available, from the last time when the database refresh worked and performed better.
   - Application changes that you made since the last time the database refresh worked properly and performed better.

### Resolving Performance Issues with Smart Push

If you encounter performance issues while performing smart push, try to optimize them.

To optimize smart push:
• Drop aggregate views
• Enable query tracking
• Run a few smart pushes to ensure that everything works as designed
• Create aggregate views based on query tracking
• Setup a nightly job to drop and recreate aggregate views

If these optimization steps do not improve performance, seek help from Oracle.

1. Create a Provide Feedback submission that captures your actions. Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

2. Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. The service request must contain the following additional information:
   • Detailed steps to reproduce the issue.
   • If the process was performing better previously, the date, time, and timezone when mart push was performing as expected.
   • Snapshot of the environment, if available, from the last time when smart push was performing better.
   • Application changes that you made since the last time smart push was performing better.

Making Financial Reporting Reports More Efficient

Poorly designed Financial Reporting reports can generate several MDX requests or Essbase queries leading to the consumption of significant Oracle Enterprise Performance Management Cloud resources. Excessive resource consumption results in performance degradation when concurrent users access such reports.

The presence of several segments in the report is the key reason for generating a large number of MDX requests. This section explains how to make Financial Reporting reports more efficient by reducing the number of segments.

Redesigning Reports: a Use Case

The Original Report

The following illustration depicts the original report design:
This report illustration shows these design elements:

1. Multiple rows for each **Entity** member 100, 200, 403, and 500.

2. Each **Entity** member has 8 rows each for different accounts.

The following table presents a high level view of the original report design and the optimized design:

<table>
<thead>
<tr>
<th>Original Report Design</th>
<th>Optimized Design</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multiple rows for each</strong> Entity member:</td>
<td><strong>Combines</strong> Entity members into one segment:</td>
</tr>
<tr>
<td>100</td>
<td>100, 200, 403, 500</td>
</tr>
<tr>
<td>200</td>
<td></td>
</tr>
<tr>
<td>403</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

Each **Entity** member has 8 rows each for different accounts. Example for member 100:

- 100 = Children of 1100
- 100 = 1100
- 100 = Children of 1200
- 100 = 1200
- 100 = Children of 1300
- 100 = 1300
- 100 = Children of 1400
- 100 = 1400

The Optimized Report

<table>
<thead>
<tr>
<th>Entity members 100, 200, 403, 500 =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children of 1100, 1100, Children of 1200, 1200, Children of 1300, 1300, Children of 1400, 1400</td>
</tr>
</tbody>
</table>
The following illustration depicts the optimized report design, which reduces the number of segments. Reducing the number of segments makes the report run faster by reducing the number of MDX requests:

Other Important Report Design Considerations

- If possible, avoid relational-type reports (reports with multiple row dimensions expanded using functions) with a large combination of members. Big reports may take a significant amount of time to execute (or may not execute). A report is considered big when the number of cells exceeds ten thousand. This is similar to treating Financial Reporting as a large scale data extraction tool, which it is not.
- Avoid reports with large number of cells with text functions (CellText, PlanningAnnotations and ListOfCellDocuments, etc.) that retrieve additional metadata from the data source.
- Use current POV, prompts or books instead of Page dimension; all Page members are retrieved at one time upon executing the report.
- Consider and test the impact of Conditional Formatting and Conditional Suppression, which can affect performance depending on the size of the report. Performance is contingent on the type of criteria and frequency with which they are used within the report. Criteria that are part of metadata or data query, for example, data value, member name, and member alias or description, are rendered fast. With large reports, minimize the use of criteria that are not part of the regular metadata or data query. Examples of such criteria include generation, level, account type, and attribute value.

Review Recent Application Changes

Identify if recent changes to the application causes report generation to slow down. You can do this by comparing the information in the Application Size table in the current Activity Report with the information in the Activity Report from a previous date when the report was working well. Also review any recent changes to the report design and usage to verify that such changes have not impacted the report.
Getting Help

After optimizing the report to reduce the number of MDX requests, if you do not see performance improvements, seek help from Oracle:

• Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. Make sure that you consent to submitting the snapshot to Oracle. See Creating a Provide Feedback Submission
• Submit a service request indicating the reference number that the Provide Feedback utility created. See Submitting a Service Request.

In the Service request, answer these questions:
1. When was the issue first observed? (required)
2. Was there any recent application or usage change that could have caused this issue? (optional)

Provide the following to Oracle along with the service request:
– Report name
– All POVs
– User and substitution variables in use
– Expected and actual report generation times

See Getting Help From Oracle.

Fixing Smart View Issues

Use the information in this section to resolve Oracle Smart View for Office login, functional, and performance issues. It also contains information on handling issues related to Smart View timeouts.

Diagnosing Login Issues

Smart View fails to establish a connection with a data source primarily because of errors in the shared or private connection URL that is being used. For information on connection types, see “Shared Connections and Private Connections” in Oracle Smart View for Office User’s Guide.

• Verify that the connection URL syntax and the credentials being used are accurate.
• Using a browser, access the environment that supports the data source. Make sure that you can login using the credentials that you are using to access the data source through Oracle Smart View for Office User’s Guide.
• If the issue persists, seek Oracle’s help using the steps detailed in the following section.

Other Issues

Use these steps to seek help from Oracle:

1. Generate a Fiddler trace file of your session while performing the activity that results in functional or performance issue. See Using Fiddler to Capture Diagnostic Information.
Watch this video for an overview of the information on configuring Fiddler to capture HTTPS traffic.

If you are unable to generate Fiddler trace file of your session, see Collecting Network Performance Trace Using a Browser for information on collecting network trace using a browser.

2. Create a Provide Feedback submission, which includes the steps (and screenshots) leading up to the occurrence of this issue.

Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

3. Create a service request that identifies the Provide Feedback reference number.

See Submitting a Service Request. The service request must contain the following additional information:

- Fiddler trace or network diagnostic HAR file that you created in Step 1.
- Microsoft Windows version.
- Microsoft Office version being used.
- Smart View version being used.
- Detailed steps to reproduce the issue.
- If the performance was acceptable previously, but is not now, the date, time, and timezone when performance was acceptable.
- Snapshot of the environment, if available, from the last time when the performance was acceptable.
- Changes that you made to the application since the last time when the performance was acceptable.

Diagnosing Consolidation Failures and Performance Issues in Financial Consolidation and Close

Financial Consolidation and Close performance issues may be caused by poor application design, use of unnecessary calculations, suboptimal customizations, lack of regular housekeeping, or a software bug. It may also be caused by functional issues.

What Causes Performance Degradation and Functional Issues

To identifying and correct factors causing performance degradation complete these steps:

- Check for Poor Application Design
- Identify Unnecessary Calculations
- Optimize Configurations and Extensions
- Perform Regular Housekeeping
- Enable Consolidation Rules Logs and Submit Feedback to Oracle
- Address Functional Issues
Check for Poor Application Design

Faced with performance issues, a Service Administrator must review the application design and validate metadata to ensure that the application will yield optimal performance.

Using the Simplified Dimension Editor to Review and Fix Errors

Optimal consolidation performance requires that metadata properties of each dimension in the application is set correctly. Incorrect metadata properties may cause consolidation errors, leading to poor performance. Use the Simplified Dimension Editor to verify that your metadata abides by the best practices for consolidation.

Review application dimensions to ensure that they are defined with the correct member properties. For information on reviewing member properties, see "Editing Member Properties in the Simplified Dimension Editor" in Administering Financial Consolidation and Close.

To review and fix errors using the Simplified Dimension Editor:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Overview.
3. On the Dimensions tab, click the name of the dimension, for example, Account, that you want to evaluate.
   The Edit Member Properties screen for the selected dimension is displayed.
   a. Click (Zoom In All Levels).
   b. Click (Validate Metadata Definition).
      A validation pane, which lists the validation errors in the current dimension, is displayed at the bottom of the screen.
   c. Use Fix Validation Errors to select and fix each validation error. Click Apply to apply changes to the metadata property value.
   d. Click Save after fixing all validation errors.
   e. Click Cancel to return to the Dimensions tab.
4. Repeat Step 3 for each dimension.
5. Refresh the database.
   a. From Actions, select Refresh Database.
   b. Click Create.
   c. In Refresh the database, set actions that are to be completed before and after refreshing the database.
   d. Click Refresh Database.
6. Run Consolidation to check if performance has improved.

Validating Metadata

Use the Metadata Validator to ensure that metadata properties, such as assigned default and consol cube data storage, consolidation operator, and parent member are valid. Invalid metadata property assignment may cause errors during consolidation leading to poor performance.
To validate metadata using the Metadata Validator:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Overview.
3. From Actions, select Validate Metadata.
4. In Validate Metadata, click Run.
   Errors, if any, are displayed in [Parent][Child] format along with an error description. For detailed information on error messages, see “Metadata Validation Messages” in Administering Financial Consolidation and Close.
5. Open the Dimension Editor and correct the reported metadata errors. See About Editing Dimensions in the Simplified Dimension Editor in Administering Financial Consolidation and Close.

Identify Unnecessary Calculations

Identification of unnecessary calculations should be performed by a Service Administrator. Financial Consolidation and Close performs many default calculations during the consolidation process. A Service Administrator must ensure that the process runs only calculations necessary for the organization’s needs. Turning off unnecessary calculations could yield performance improvements.

See “Consolidation Process” in Administering Financial Consolidation and Close for a detailed discussion of the consolidation process.

Consider Turning Off Automatic Calculation of Balance Seeded Account

If the Balance Sheet is out of balance, a balancing amount is calculated and posted to Balance, a seeded account. You may disable this calculation if you do not want the application to automatically balance the Balance Sheet for a scenario.

To stop automatic calculation of Balance seeded account:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Consolidation.
3. Click Balance the Balance Sheet on Local Currency tab.
4. Add exclusion for one or more scenarios:
   a. Under Disabled Scenarios, click Add Scenario and select the scenario for which you do not want automatically calculate the Balance seeded account. You may disable this calculation for all scenarios, if you so wish.
   b. Click (Save and Deploy) to save and activate the exclusion rule.
5. Run Consolidation.

Consider Turning Off Ratio Calculations

Most ratios, including Liquidity Ratios, Asset Management Ratios, Profitability Ratios, and Leverage Ratios, are dynamically calculated as needed. The two performance Ratios; Days Sales in Inventory, and Days Sales in Receivables, are calculated as part of the consolidation process. To boost performance, consider excluding ratio calculations.
Consider Processing System Calculations on Custom Dimensions Using Top Member

By default, Financial Consolidation and Close performs system calculations for all level 0 members of the custom dimensions in the application. Consider processing system calculations using Top Member instead of level 0 members if your application does not require the level of detail provided by system calculations on level 0 members.

**Note:**

This suggestion does not apply to extended dimension-based applications.

To process system calculation on custom dimensions using Top Member:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Consolidation**.
3. Click **Options**. System Calculation Options dialog box, listing the custom dimensions in the application, is displayed.

4. Select the custom dimensions for which Top Member processing is to be activated.

5. Click **Save**.

---

**Optimize Configurations and Extensions**

Use of suboptimal logic in consolidation extensions and configurations can adversely impact performance.

Customers can extend the default consolidation logic of Financial Consolidation and Close applications. Methods that can be used to extend the consolidation logic include the following:

- Member formulas
- Calculation logic
- Translation or consolidation overrides

Use the information in the Activity Report, specifically, the information in the following sections, to identify scripts that take considerable time to run:

- Top 10 Worst Performing Business Rules over 30 Seconds
- Top 5 Worst Performing Calc Scripts Commands over 1 Min
- Top 10 Worst Performing Essbase Queries over 15 seconds

See [Using Activity Reports and Access Logs to Monitor Usage](#)

**Review Member Formulas**

Review member formulas to optimize calculations and logic and to remove unnecessary formulas. You can review member formulas using Oracle Smart View for Office.

Use the Edit Member Properties screen to review, edit, and remove formulas from a dimension. You can remove formulas only from custom dimensions; seeded formulas, for example, YTD on default (out of the box) dimensions cannot be removed.

To edit or remove formulas from custom dimensions:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. Click **Dimensions** to open the Simplified Dimension Editor.
4. Click the name of the dimension that you want to work with.
5. Click **Zoom in All Levels**.
6. In the **Console Formula** column, find the formula that you want to edit or remove.
7. Edit or delete the formula as needed and then click Save to preserve your changes.

8. Click Save and then Cancel in Edit Member Properties.

Disable Custom Calculations Deployed to the Application

Financial Consolidation and Close uses many predefined rules templates to assist in the local currency or multi-currency calculation process. You may have modified these by including custom scripts and redeployed them to the application. To verify that custom calculation scripts are not affecting performance, disable (comment) out the custom scripts, redeploy them to the application, and then consolidation.

To disable custom calculations:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Consolidation.
4. Click After Opening Balance Carry Forward or Final Calculations to open Calculation Manager.
5. In Calculation Manager, display available rules by expanding these nodes: EPM Cloud, then the node for your application, then Consol, and then Rules.
6. Comment out custom script and redeploy the rule:
   a. Right-click a rule, for example, FCCS_10_After Opening Balance Carry Forward_Local_Currency, and select Open.
   b. Comment out any custom script to revert the rule to its default state as shown in the following illustration.
c.  Redeploy the rule and then run consolidation to check performance. If performance improves, revise and optimize the script, paying special attention to roll ups and ad hoc calculations that may affect performance. You should then redeploy the rule to the application.

If performance does not improve, you can assume that this rule is not contributing to performance degradation. You should restore the custom script and then redeploy the rule to the application.

7. Perform Step 6 for each rule.

Undeploy Consolidation Rules

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Consolidation.
3. On the Consolidation Process tab, click Consolidated.
4. Click Configurable Consolidation. 
   Manage Consolidation Rules opens.
5. Undeploy consolidation rule set one at a time and then run consolidation to assess performance.

If performance improves, revise and optimize the rules in the rule set. You should then redeploy the rules and rule sets to the application.
If performance does not improve, you can assume that this rule set is not contributing to performance degradation. You should redeploy the rule set to the application.

Perform Regular Housekeeping

A Service Administrator must perform needed housekeeping tasks on a regular basis to guard against performance degradation. Tuning the Essbase by regularly removing unnecessary data blocks and ensuring that data block structure is stored efficiently are essential for optimal consolidation performance.

**Note:**

You may run the `restructureCube` EPM Automate command to remove empty blocks and restructure cube. See *Working with EPM Automate for Oracle Enterprise Performance Management Cloud* for information.

Clear Empty Blocks

Clearing empty blocks helps optimize database calculation speed. For example, if an initial calculation creates numerous consolidated level blocks, subsequent recalculations take longer, because the calculation must pass through the additional blocks.

To clear empty blocks:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. In the Home page, click **Rules**.
3. In **Business Rules** tab, click ![Launch](Launch) in the **ClearEmptyBlocks** row.
4. In **Business Rules**, select the scenario, year, and period for which empty blocks are to be cleared.

5. Click **Launch**.
6. Run consolidation.

Restructure Dense Cubes

Data fragmentation occurs naturally in Block Storage (BSO) databases as a result of end user data updates, incremental data loads, and executing calculations. The
performance of Financial Consolidation and Close application will be impacted if the database is fragmented.

To check if a cube restructuring is required:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Consolidation.
3. Launch Calculation Manager by clicking Final Calculations.
4. In Calculation Manager, click (Database Properties)
5. In the left pane of Database Properties, expand EPM Cloud, then the node of your application, and then click Consol.
6. In the right pane, click Statistics.
7. Check the value of Average clustering ratio. If the displayed value is 1.00 (maximum) or close to it, a restructuring is not required. If the value is much lower, for example, 0.01032828, you must restructure the cube to defragment it.

Before running this command, ensure that no one is using the application.

To restructure a cube:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Jobs.
3. Schedule and run the Restructure Cube job.
   a. Click Schedule Jobs.
   b. From What type of job is this?, select Restructure Cube.
   c. Select Run Now to start the restructuring right away. Click Next, and then Finish. Alternatively, you can schedule the job to start at a later time.

Enable Consolidation Rules Logs and Submit Feedback to Oracle

If the corrective steps suggested in the preceding sections failed to resolve your performance issues, submit a service request to Oracle Support.

Before creating a service request, turn on consolidation log files, run consolidation, and then use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem.
Turn on Consolidation Log Files

To turn on consolidation rules log files:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Settings.
3. In Application Settings, under Other Options, select Yes as the value for Enable Consolidation Rules Logging.
4. Click Save.
5. Run consolidation.

Restart Financial Consolidation and Close

Consolidation rules log file are analyzed when you restart Financial Consolidation and Close.

To restart the Financial Consolidation and Close environment:

1. Using EPM Automate, sign into the environment as a Service Administrator. See EPM Automate Commands in Working with EPM Automate for Oracle Enterprise Performance Management Cloud for usage information and examples.
2. Run the resetService command.
   ```
   epmautomate resetservice "Some Comment" -f
   ```

How to Get Help

After completing the preceding troubleshooting, if you do not see performance improvements, review these factors and then seek help from Oracle:

- Recent changes to the application
  Compare the following tables in the Activity Report with the information available in an Activity Report from a previous date when the rule was working well. This comparison will help you identify application design changes that have taken place between the two dates:
  - Application Size
  - Essbase BSO Cube Statistics
  - Top 5 Consolidation and Translation Jobs by Duration
- Recent changes in the use of calculations (for example, different values of runtime prompts, change in user or substitution variables, etc.), rules (for example, more concurrent users).
- Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. Make sure that you consent to submitting the snapshot to Oracle. See Creating a Provide Feedback Submission.
- Submit a service request indicating the reference number that the Provide Feedback utility created. See Submitting a Service Request.

In the Service request, answer these questions:

1. When was the issue first observed? (required)
2. Was there any recent application or usage change that could have caused this issue? (optional)
Provide the following to Oracle with the service request:
- POVs
- User and substitution variables
- Expected and actual performance parameters (for example, expected time for consolidation versus actual time)

See Getting Help From Oracle.

Address Functional Issues

Functional issues such as the following are not addressed by the preceding steps:

- The application displays *Essbase Data Cache Full* error and terminates consolidation
- The application displays *The following value is not valid for the runtime prompt* `<ENTITY_NAME>` error when users select an entity for consolidation

**Resolving *Essbase Data Cache Full* Error**

Generally, the Financial Consolidation and Close application displays the *Essbase Data Cache Full* error because a shared member appears ahead of the primary member in the metadata hierarchy.

**Corrective Actions**

1. Use Oracle Smart View for Office or the Dimension Editor to view the hierarchy and locate the shared member that appears ahead of the primary member in the hierarchy.

2. Move the primary member ahead of the shared member in the hierarchy.
3. Refresh the database.
4. Run the consolidation rule that failed.
Resolving the Unable to select an entity for consolidation Error

You cannot launch consolidations for an entity that cannot be calculated correctly. In the illustration, us_Ops cannot be selected because it does not have a check mark for POV selector.

![Select Members](image)

Additionally, typing in the name of an unselectable entity into the Consolidate screen displays the The following value is not valid for the runtime prompt: us_Ops error.

![Business Rules](image)

To resolving the Unable to select an entity for consolidation error:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Valid Intersections.
3. Disable the valid intersection rule for the entity that cannot be selected for consolidation.
Troubleshooting Data Load Performance Issues

Seek help from Oracle if you encounter performance issues while loading data to Oracle Enterprise Performance Management Cloud using Data Integration or Data Management.

To get help from Oracle:

1. Create a Provide Feedback submission that captures the actions that you perform to load data. Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

2. Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. The service request must contain the following additional information:
   - Detailed steps to reproduce the issue.
   - If the process was working previously, the date, time, and timezone when the process was performing as expected.
   - Snapshot of the environment, if available, from the last time when the process was working properly.
   - Application changes or data load rule changes that you made since the last time the process was working as expected.

Resolving Other Performance Issues

Use this process to resolve other performance issue or an overall performance issue that causes all activities in the environment to be slower than expected.

1. Optional: Restart the environment if all activities are slower than expected.
Use the `resetService` EPM Automate command to restart the environment. Restarting an environment does not affect application. However, sessions of currently connected users will be terminated and any unsaved data is lost.

2. **Optional**: Generate a Fiddler trace:

If overall performance is slower than expected even after restarting the environment, generate a Fiddler trace of your session.

See [Using Fiddler to Capture Diagnostic Information](#).

Watch this video for an overview of the information on configuring Fiddler to capture HTTPS traffic.

If you are unable to generate a Fiddler trace file of your session, see [Collecting Network Performance Trace Using a Browser](#) for information on collecting network trace using a browser.

3. Create a Provide Feedback submission. Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See [Creating a Provide Feedback Submission](#).

4. Create a service request that identifies the Provide Feedback reference number. See [Submitting a Service Request](#). The service request must contain the following additional information:

   - Details of the activities that take more time than expected.
   - Fiddler trace file or network diagnostic HAR file.
   - If the activities were previously performing to expectation, the date, time, and timezone when performance was acceptable.
   - A snapshot of the environment, if available, from the last time when performance was acceptable.
   - Application changes that you made since the performance was acceptable.

## Handling Financial Consolidation Data Inaccuracies

Use the information in this section to analyze why you see data discrepancies (deviation from expected numbers) during the financial consolidation process.

These steps are involved in investigating why the consolidation numbers you expect to see are not coming up during consolidation:

- **Check for Poor Application Design**
- **Remove Customizations**
- **Check Known Consolidation Issues**
- **Get Help from Oracle**

### Check for Poor Application Design

Incorrect metadata property settings in Financial Consolidation and Close is a primary reason for numbers mismatch. A Service Administrator must review the consolidation
application design and identify and fix metadata errors to ensure the accuracy of numbers during consolidation.

**Review and Fix Metadata Errors**

Accuracy during consolidation is predicated on the metadata properties of each dimension in the application being accurate. Use the Simplified Dimension Editor to verify that your metadata abides by the best practices for consolidation.

Review application dimensions to ensure that they are defined with the correct member properties. For information on reviewing member properties, see "Editing Member Properties in the Simplified Dimension Editor" in *Administering Financial Consolidation and Close*.

To review and fix errors using the Simplified Dimension Editor:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. On the **Dimensions** tab, click the name of the dimension, for example, Account, that you want to evaluate.
   The Edit Member Properties screen for the selected dimension is displayed.
   a. Click **(Zoom In All Levels)**.
   b. Click **(Validate Metadata Definition)**.
      A validation pane, which lists the validation errors in the current dimension, is displayed at the bottom of the screen.
   c. Use **Fix Validation Errors** to select and fix each validation error. Click **Apply** to apply changes to the metadata property value.
   d. Click **Save** after fixing all validation errors.
   e. Click **Cancel** to return to the **Dimensions** tab.
4. Repeat Step 3 for each dimension.
5. Refresh the database.
   a. From **Actions**, select **Refresh Database**.
   b. Click **Create**.
   c. In **Refresh the database**, set actions that are to be completed before and after refreshing the database.

**Validating Metadata**

Use the Metadata Validator to ensure that metadata properties, such as assigned default and consol cube data storage, consolidation operator, and parent member are valid. Invalid metadata property assignment may cause errors during consolidation.

To validate metadata using the Metadata Validator:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click **Application** and then **Overview**.
3. From **Actions**, select **Validate Metadata**.
4. In **Validate Metadata**, click **Run**.
Errors, if any, are displayed in [Parent].[Child] format along with an error description. For detailed information on error messages, see "Metadata Validation Messages" in *Administering Financial Consolidation and Close*.

5. Open the Dimension Editor and correct all reported metadata errors. See About Editing Dimensions in the Simplified Dimension Editor in *Administering Financial Consolidation and Close*.

6. Rerun consolidation and check results.
   If data inaccuracies are not resolved, you can assume that metadata definitions are not responsible for inaccurate consolidation results.

**Remove Customizations**

Remove (undeploy) customized translation rules, consolidation rules, calculations, and dimension member formulas in the application to verify that consolidation accuracy is not compromised by customizations.

**Undeploy Translation Rules**

You undeploy translation rules from the Translation Override Rules screen.

1. Sign into Financial Consolidation and Close as a Service Administrator.
2. Select Application and then Consolidation.
3. Open Consolidation Process, then select Translated, and then select Translation Overrides.
4. Click Show All Rules to list all deployed rules.
5. Select the translation rules with customizations.
6. Rerun consolidation and check results.
   If data inaccuracies are not resolved, you can assume that translation rules are not responsible for inaccurate consolidation results. You can now redeploy the rules. If inaccuracies are resolved, review the translation rules to identify and correct the rule that caused the consolidation results to be inaccurate.

**Undeploy Configurable Consolidation Rules**

You undeploy configurable consolidation rules from the Manage Consolidation Rules screen. Configurable consolidation rules are enabled only if the Ownership Management feature is enabled.

1. Sign into Financial Consolidation and Close as a Service Administrator.
2. Select Application and then Consolidation.
3. Open Consolidation Process, then select Consolidated, and then select Configurable Consolidation.
4. For each customized consolidation rule, select the rule and then click Undeploy.
5. Rerun consolidation and check results.
   If data inaccuracies are not resolved, you can assume that configurable consolidation rules are not responsible for inaccurate results. You can now redeploy the rules.
redeploy the rules. If inaccuracies are resolved, review the consolidation rules that
you removed to identify and correct the rule that caused the consolidation results
to be inaccurate.

Delete Custom Calculation Logic

Customizations to the predefined Financial Consolidation and Close rules (FCCS_10
to FCCS_60 for multicurrency applications and FCCS_110 to FCCS_160 for single
currency applications ) may cause consolidation to be inaccurate. You remove custom
logic by editing the rule in Calculation Manager.

To remove customizations of predefined rules:

1. Sign into Financial Consolidation and Close as a Service Administrator.
2. Select Application and then Consolidation.
3. Open Consolidation Process, then select Local Currency, and then select After
Opening Balance Carry Forward.
   Calculation Manager is displayed.
4. In Calculation Manager, expand Planning, then the application, then Consol, and then Rules.
5. For each rule:
   a. Right-click the rule, then select Open.
   b. Comment out or delete any custom rule definition.
   c. Click Save.
   d. Select Actions, and then Validate and Deploy.
6. Rerun consolidation and check results.
   If data inaccuracies are not resolved, you can assume that calculation logic is not
   responsible for inaccurate consolidation results. You can now reinstate the logic. If
   inaccuracies are resolved, review the calculation logic to identify and correct the
   logic that caused the consolidation results to be inaccurate.

Review and Remove Formulas

Review member formulas to optimize calculations and logic and to remove
unnecessary formulas. You can review member formulas using the Simplified
Dimension Editor or Oracle Smart View for Office.

Use the Edit Member Properties screen to review, edit, and remove formulas from a
dimension. You can remove formulas only from custom dimensions; seeded formulas,
for example, YTD on default (out of the box) dimensions cannot be removed.

To edit or remove formulas from custom dimensions using the simplified Dimension
Editor:

1. Sign in to Financial Consolidation and Close as a Service Administrator.
2. On the Home page, click Application and then Overview.
3. Click Dimensions to open the Simplified Dimension Editor.
4. Click the name of the dimension that you want to work with.
5. Click Zoom in All Levels.
6. In the Console Formula column, find the formula that you want to edit or remove.

![Console Formula column](image)

You may remove columns from the current view to de-clutter the screen by right-clicking in the column header and deselecting some columns.

7. Edit or delete the formula as needed and then click Save to preserve your changes.

8. Click Save and then Cancel in Edit Member Properties.

9. Rerun consolidation and check results.

   If data inaccuracies are not resolved, you can assume that formulas are not responsible for inaccurate consolidation results. You can now redeploy the formulas.

   If inaccuracies are resolved, review the formulas that you deleted to identify and correct the formula that caused the consolidation results to be inaccurate.

Check Known Consolidation Issues

This section lists solutions for some common consolidation issues: retained earnings not rolling over for a period, Cumulative Translation Adjustment (CTA) not being calculated, opening balance and foreign exchange calculation inaccuracies, and custom member formulas being defined under Total Balance Sheet hierarchy.

Before contacting Oracle for help, verify that these issues are not causing you to see unexpected consolidated numbers.

**Issue 1: Retained Earnings not Rolling Over for Period 1**

FCCS_REC_OBFXCTA is a system member that stores the Opening Balance and FX calculation for Net Income/Owners Income members. Net Income/Owners Income parent member is referred in Opening Balance and FX calculations. The Net Income/Owners Income hierarchy must always be within Retained Earnings hierarchy.

Ensure that the Net Income/Owners Income hierarchy is within the Retained Earnings hierarchy

**Similar Issues:** other seeded system members that should not be moved from their original position include the following:

**Account:**

- FCCS_Total Balance Sheet XXX (Balance sheet top member), FCCS_Balance (valid only if balance calculation is valid)
• FCCS_Total Assets, FCCS_Total Liabilities, FCCS_Total Equity (for balance calculation only)
• FCCS_Retained Earnings, FCCS_Retained Earnings Prior, FCCS_Net Income, FCCS_Owners Income, FCCS_REC OBFXCTA
• FCCS_CTA (valid only when Balance Sheet under CTA is enabled)
• FCCS_CICTA, FCCS_Total Other Comprehensive Income, FCCS_OR OBFXCICTA

Movement:
FCCS_ClosingBalance, FCCS_Total OpeningBalance, FCCS_OpeningBalance, FCCS_Mvmts_Subtotal, and members under FCCS_Mvmts_FX_Total.

Issue 2: CTA is not Calculated (Multicurrency Applications)

CTA is calculated as sum of foreign exchange to CTA values for historical accounts under balance Sheet top member (FCCS_Total Balance Sheet - Traditional Approach, FCCS_Total Balance Sheet Net Asset Approach). Historical accounts outside top balance sheet members are ignored for CTA calculation.

• Check if historical accounts (accounts with Exchange Rate Type property set to Historical, Historical Rate Override, Historical Amount Override) have FX to CTA movement member data in FCCS_Mvmts_FX_to_CTA.
• If data is not present in FCCS_Mvmts_FX_to_CTA for historical accounts, check if historical accounts are outside balance sheet top member hierarchy.
• Verify that all the historical accounts are within the balance sheet top member hierarchy.

Issue 3: OB and FX for Revenue and Expense Accounts Outside FCCS_Net Income, FCCS_Owners Income, and FCCS_Total Other Comprehensive Income Hierarchy

Revenue and expense accounts outside FCCS_Net Income, FCCS_Owners Income, and FCCS_Total Other Comprehensive Income hierarchy are not considered for opening Balance or FX calculations and leads to out of balance issues. This is a known issue; which Oracle is working on fixing.

Workaround: Move revenue and expense accounts under FCCS_Net Income, FCCS_Owners Income, or FCCS_Total Other Comprehensive Income hierarchy.

Issue 4: OB and FX for Equity, Liability, and Asset Accounts Under FCCS_Net Income or FCCS_Owners Income

OB and FX should not be calculated for equity, liability and asset accounts under FCCS_Net Income or FCCS_Owners Income. However, if OB and FX for equity, liability, and asset accounts are in FCCS_Net Income or FCCS_Owners Income hierarchy, OB and FX are currently calculated for these accounts, leading to out of balance issues. This is a known issue; which Oracle is working on fixing.

Workaround: Move equity, liability, and asset accounts outside the FCCS_Net Income or FCCS_Owners Income hierarchy.

Issue 5: OB and FX for Accounts Outside FCCS_Balance Sheet Hierarchy

Although Financial Consolidation and Close should calculate OB and FX also for all financial accounts outside FCCS_Balance sheet, it does so only for accounts under
FCCS_Balance Sheet resulting in customers not getting the expected results. This is a known issue; which Oracle is working on fixing.

**Workaround:** Move all the financial accounts under the FCCS_Balance Sheet hierarchy.

**Issue 6: Member Formula Defined Under Total Balance Sheet Hierarchy for Custom Accounts**

For custom accounts, member formulas defined under Total Balance Sheet hierarchy cause unexpected results or calculations.

**Corrective Actions:**
- Remove formulas defined under Total Balance Sheet hierarchy
- Refresh the database
- Run consolidation or translation for the impacted period or year
- Verify that the issue is resolved

**Get Help from Oracle**

If the corrective steps suggested in the preceding sections failed to resolve inaccuracies in consolidation results, seek help from Oracle.

Before creating a service request, turn on consolidation log files, restart Financial Consolidation and Close, run consolidation, and then use the Provide Feedback utility to gather the information that Oracle needs to identify and fix your problem. See Enable Consolidation Rules Logs and Submit Feedback to Oracle for instructions.

To seek Help from Oracle:

1. Create a Provide Feedback submission, which includes screenshots of the consolidation results. Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission. See Creating a Provide Feedback Submission.

2. Create a service request that identifies the Provide Feedback reference number. See Submitting a Service Request. The service request must contain the following additional information:
   - An explanation of the expected consolidation results and how it differs from the actual result.
   - If the consolidation results were accurate previously, but is not now, the date, time, and timezone when results were accurate.
   - Snapshot of the environment, if available, from the last time when the consolidation numbers were accurate.
   - Changes that you made since the last time consolidation results were accurate.

**Responding to Customer Diagnostic Alerts**

Oracle Enterprise Performance Management Cloud uses a diagnostic alert (an email addressed to Service Administrators of an environment) to communicate issues that
impact the uptime, performance, or usage of an environment, which requires customer action.

Generally, a diagnostic alert indicates that Oracle’s automated diagnostics system detected an issue specific to your environment that requires your intervention. This section details what to do if you receive an email titled Diagnostic Alert.

1. On getting a diagnostic alert, create a Provide Feedback submission. Be sure to allow Oracle to access the maintenance snapshot of the environment by consenting to application snapshot submission.

2. Create a service request using the subject Enterprise Performance Management (EPM) Cloud Diagnostic Alert. Be sure to reference the Provide Feedback reference number in the service request. See Getting Help From Oracle.

### Enabling Hybrid-Enabled Essbase for Legacy Subscriptions

See About Essbase in EPM Cloud for information on the Essbase versions available in Oracle Enterprise Performance Management Cloud and the implications of enabling Hybrid-enabled Essbase.

Only the following legacy subscriptions can be upgraded to use Hybrid-enabled Essbase:

- Oracle Enterprise Planning and Budgeting Cloud
- Planning and Budgeting Cloud subscriptions with Plus One option license
- Oracle Financial Consolidation and Close Cloud

For legacy Oracle Financial Consolidation and Close Cloud environments, Hybrid-enabled Essbase is needed only if you require the Extended Dimensionality option which supports more than two custom dimensions in your Financial Consolidation and Close application.

For Oracle Enterprise Planning and Budgeting Cloud and Planning and Budgeting Cloud subscriptions with Plus One option license, Hybrid-enabled Essbase is needed to create applications that use hybrid cubes, including Free Form applications.

Hybrid-enabled Essbase is first applied to the Test environment. You will need to separately upgrade the production environment after testing the upgrade in the Test environment.

Upgrading to Hybrid-enabled Essbase is a self-service process that uses the recreate EPM Automate command.

On upgrading to Hybrid-enabled Essbase:

- Existing application, including artifacts, metadata, and data, is lost.
- You must create an application; you cannot import snapshots from environments that use an Essbase version that is not Hybrid-enabled.

To upgrade legacy Oracle Financial Consolidation and Close Cloud, Oracle Enterprise Planning and Budgeting Cloud, or Planning and Budgeting Cloud subscriptions with Plus One option license:

1. **For Enterprise Planning and Budgeting Cloud and Planning and Budgeting Cloud Plus 1 applications only**: Convert the Planning application in your test environment to a Planning Modules application.
See Converting a Standard or Reporting Application to an Enterprise Application in Administering Planning Modules.

2. Perform a database refresh. Ensure that the process runs successfully without errors.

3. Using Migration, create a full backup of the current environment and download it to a local computer.

   **Note:**
   If you have not modified the data and artifacts after the last maintenance of the environment, you can use the Artifact Snapshot as a full backup of the environment.

4. Start an EPM Automate session and log into an environment:
   ```
   epmautomate login serviceAdmin Example_pwd https://test-example.oraclecloud.com ExampleDomain
   ```

5. Execute the recreate command:
   ```
   epmautomate recreate -f EssbaseChange=Upgrade
   ```

### Getting Help From Oracle

Before approaching Oracle Support for assistance, complete the troubleshooting steps available in this book to diagnose and fix the issue.

Specific information that Oracle requires to troubleshoot your issue is identified in each discussion. These topics provide additional information.

- Using Fiddler to Capture Diagnostic Information
- Collecting Network Performance Trace Using a Browser
- Creating a Provide Feedback Submission
- Submitting a Service Request

#### Using Fiddler to Capture Diagnostic Information

Use Fiddler to capture HTTPS traffic while you recreate EPM Automate and Oracle Smart View for Office login or performance issues. Fiddler trace file contains statistics and inspectors that help Oracle debug issues more efficiently.

Watch this video for an overview of the information on configuring Fiddler to capture HTTPS traffic.

#### Collecting Network Performance Trace Using a Browser

Oracle Support may require network performance data to resolve some Oracle Enterprise Performance Management Cloud performance issues. Use this information...
to collect network diagnostics data using Google Chrome, Firefox, and Internet Explorer.

Collecting Network Traces Using Google Chrome

1. Clear Chrome cache.
   a. Click \(\text{(Customize and control Google Chrome icon)}\), then select History, and then History.
   b. Click Clear Browsing data.
   c. Select all check boxes in Clear Browsing data.
   d. In Time range, select All time.
   e. Click Clear data.

2. Open Network Diagnostics.
   a. Click \(\text{(Customize and control Google Chrome icon)}\), then select More tools, and then Developer tools.
   b. Click Network.

3. Sign in to the EPM Cloud environment and perform the use case that causes performance or functional issues.

4. Sign out of the EPM Cloud environment.

5. Sign in to the EPM Cloud environment again and perform the same use case that causes performance or functional issues to ensure that the browser has cached static content.

6. Right-click in the Name column and select Save all as HAR with content, and save the trace information to a local directory.

Capturing Network Trace Using Firefox

1. Clear Firefox cache.
   a. Click \(\text{View history, saved bookmarks, and more icon)}\), then select History, and then Clear Recent History.
   b. In Time range to clear, select Everything.
   c. Click Clear Now.

2. Open Network Diagnostics.
   a. Click \(\text{(Open Menu icon)}\), then select Web Developer, and then Network.
   b. Select the Persist Logs check box on the Network Monitor tab.
   c. Sign in to the EPM Cloud environment and perform the use case that causes performance or functional issues.
   d. Sign out of the EPM Cloud environment.
   e. Sign in to the EPM Cloud environment and perform the same use case that causes performance or functional issues to ensure that the browser has cached static content.
   f. Right-click in any column and select Save All As HAR, and save the trace information to a local directory.
Capturing Network Trace Using Internet Explorer

1. Clear Internet Explorer cache.
   a. From **Tools**, select **Internet Options**.
   b. In **Browsing history**, click **Delete**.
   c. Select all check boxes in **Delete Browsing History** and then click **Delete**.
   d. Click **OK**.

2. Open Network Diagnostics.
   a. From **Tools**, select **F12 Developer Tools**.
   b. Click **Network**. If the Network Profiling Session is not active, click **(Start Profiling Session)**.
   c. Sign in to the EPM Cloud environment and perform the use case that causes performance or functional issues.
   d. Sign out of the EPM Cloud environment.
   e. Sign in to the EPM Cloud environment and perform the same use case that causes performance or functional issues to ensure that the browser has cached static content.
   f. Click **(Export as HAR icon)**, and save the trace information to a local directory.

Creating a Provide Feedback Submission

Use the Provide Feedback utility to gather the information that Oracle Support needs to identify and fix your problem. While creating the submission, reproduce your issue and capture relevant screenshots that clearly show the steps to reproduce your issue. See [Helping Oracle Collect Diagnostic Information Using the Provide Feedback Utility](#) for more information.

Be sure to consent to the submission of an application snapshot so that Oracle can reproduce your issue inhouse.

**Note:**

The utility generates a reference number for your submission, which you should include in the service request. The reference number is included in the feedback notification email sent to Service Administrators.

Watch this video for an overview of the information that you need to submit to quickly resolve issues.

Watch this video for an overview of the process of collecting and submitting information using Provide Feedback.
Submitting a Service Request

Sign in to Oracle Support web site and create a service request. Be sure to include the reference number that the Provide Feedback utility created.

Depending on your business process and issue, Oracle needs information such as:

- POVs
- User and substitution variables
- Expected and actual performance parameters (for example, expected time for consolidation versus actual time)
- Fiddler trace or HAR file of the session
- Log files

Understanding Access Limits

Can I Access the Database Used with my Cloud Environment?

No. You cannot access the database that supports your Oracle Enterprise Performance Management Cloud environment. Access to all cloud content is provided through the provided user interfaces, application program interfaces, and utilities only. Direct access to the database using SQL is not provided.

Can I Access the EPM Cloud Operating System?

No. You cannot directly access the operating system that hosts your EPM Cloud environments. Direct access to the file system and other platform components is not provided.

Can I Access the Operating System and Application Log Files?

No. You cannot directly access the operating system and application log files from the server that hosts your EPM Cloud environments.

Monitoring the Service

This section lists queries related to monitoring Oracle Enterprise Performance Management Cloud environments.

How do I monitor service performance?

Service Administrators can monitor performance through My Services, which provides historic performance metrics. Service Administrators can also view Activity Reports, which helps streamline application design by identifying calculation scripts and user requests that impact application performance. See Monitoring Your Service.

Is there a way to performance test an environment under load?

Use the replay EPM Automate command to simulate system load to verify that user experience is acceptable when the service is under a specified load. For example, you can test the user experience on a test environment under a heavy load to ensure that
the service will perform well after you migrate the application from the test environment to the production environment.

See these sections in *Working with EPM Automate for Oracle Enterprise Performance Management Cloud*

- Command Reference
- Preparing to Run the Replay Command

**Is there an Activity Report in Narrative Reporting?**

Activity Report and access logs are not available from Narrative Reporting screens.

Activity Reports and access logs are generated and stored in Narrative Reporting server. You can download them using the `downloadFile` EPM Automate command.

Additionally, you can generate a System Audit log, a CSV file, to identify changes to the service over a period of time. See "Performing an Audit" in *Administering Narrative Reporting* for detailed information.

**How do I view service details?**

Use My Services to view service status, uptime, and utilization data. Additionally, from My Services, you can access service console, environments, and the Oracle store.

See "Viewing Service Details in My Services" in *Managing and Monitoring Oracle Cloud*.

**How do I monitor notifications related to outages?**

Use the My Services Notifications page to monitor ongoing service outages and planned service outages that Oracle schedules for service maintenance. You can filter and sort the list of notifications.

See "Monitoring Notifications" in *Managing and Monitoring Oracle Cloud*.

**How do I ensure that only authorized users can access EPM Cloud environments? How can I ensure that users can only connect using our organization's VPN?**

Use a whitelist or blacklist to control access to EPM Cloud environments. See these information sources:

- Setting up Network Restricted Access
- Managing Internet Protocol Whitelist and Blacklist Rules in *Managing and Monitoring Oracle Cloud*.

**How do I determine the current size of data in an environment?**

Use the Details page of the environment in My Services to monitor data size. The details page displays the data size in an environment in these formats:

- Usage trend as a graph
- Usage trend as a table
- Most recent data size in Gigabytes (GB)

To determine the data size:
2. Click the name of an environment.
3. Click Business Metrics.
4. Select Size of Data (GB).

See "Monitoring Service Status, Account Balance, and Utilization in a Domain" in Managing and Monitoring Oracle Cloud.

What contributes to the data size in an environment?
Data size in a service environment is the sum of the following:

- Application data stored in Essbase.
- Artifact snapshot created by the daily maintenance process
- Snapshots that you created using Migration and EPM Automate.
- Snapshots that you uploaded using Migration and EPM Automate.
- Data and metadata files that you uploaded using Migration and EPM Automate.

The Activity Report lists application size information including data size (includes the size of snapshots, and files available in the inbox and outbox), size of Essbase data, and the size of the maintenance snapshot. See Application Design Information.

What is the maximum allowed data size in an environment?
The default maximum size of your environment is 150 GB; you can purchase additional storage to extend this limit. Please see your Order Documents for details of your purchased subscriptions.

Your service will work after the data size reaches the 150 GB limit. Oracle may remind you to reduce the data size when it exceeds 150 GB. You can reduce the data size by deleting unnecessary snapshots, metadata, and data files from the service.

If the total size of all snapshots is over 150 GB, Oracle will delete the snapshots (older first) until the total size of all snapshots is within 150 GB limit or only Artifact Snapshot remains. Artifact Snapshot is never deleted irrespective of the size.

Services other than Narrative Reporting can use the deletefile command to remove unnecessary files from an environment. See "Command Reference" in Working with EPM Automate for Oracle Enterprise Performance Management Cloud.

Managing User Accounts

This section lists common queries about SSO and user accounts.

If my service is configured for SSO, does EPM Cloud manage user passwords?
If the service is configured for SSO, Oracle Enterprise Performance Management Cloud user names and passwords, and password policies, are managed by the directory server of your organization.

Service Administrators who need to access clients, such as EPM Automate, must have EPM Cloud accounts enabled for identity domain credentials. See Ensuring that Users Can Run EPM Cloud Utilities After Configuring SSO. For these accounts, EPM Cloud maintains passwords.
All users, including automation and system users, must periodically change their passwords. EPM Cloud sends reminder emails every day, starting seven days prior to password expiry, asking users to change their passwords. New passwords must adhere to the EPM Cloud password policies listed on the My Profile page of the My Services application. See Changing Your Password.

My service is not configured for SSO. Is there a way to ensure that EPM Cloud password policies mirror that of my company?

No. EPM Cloud password policies cannot be changed to mirror the policies of an organization. If you want to use your own password policies, configure SSO.

Client Compatibility

This section addresses questions about browser and Oracle Smart View for Office compatibility.

How do I determine if users are using a recommended browser?

Use the Activity Report to track browser usage. This report lists the following:

- Browsers with unsupported versions and the number of users who used them
- Versions of the browsers that were used to access the service and the number of users who used them

Use these information sources:

- See Viewing and Downloading Activity Reports and Access Logs.
- For a list of recommended browsers, see Supported Browsers.

How do I track the version of Smart View being used?

Use the Activity Report to track Smart View usage. This report lists the following:

- Smart View versions being used and the number of users who use them
- The 10 most active Smart View users who do not use the current version of Smart View

See Viewing and Downloading Activity Reports and Access Logs.

Best Practices for Production Environments

This section explores some Oracle recommended best practices for managing Oracle Enterprise Performance Management Cloud. Topics include change management process and the use of maintenance mode.

Oracle recommends that all activities related to building and fine-tuning, and testing applications be performed in the test environment before migrating fully tested applications from the test to the production environment.

Use Maintenance Mode while Performing Administrative Tasks

The maintenance mode is a state in which only Service Administrators can perform tasks within the application; all other users are locked out. The application remains in maintenance mode until a Service Administrator returns it to regular use by turning off the maintenance mode.
When you set the application in maintenance mode, active users are signed out, which may result in losing unsaved data. To avoid data loss when an environment goes into maintenance mode, Oracle recommends that Service Administrators communicate the planned invocation of maintenance mode to users, advising them how to avoid losing unsaved data.

The following administration tasks, which consume a sizable amount of available computing resources, must be performed in maintenance mode.

- Adding a cube
- Refreshing cubes
- Restructuring an application
- Loading metadata
- Loading data

Limit the number of users who are assigned to the Service Administrator role

Assign the Service Administrator role, the most powerful role in EPM Cloud, to only a few users. If required, assign application roles to augment the privileges of users to allow them to perform tasks that are not permitted by their role assignment in identity domain.

See "Managing Role Assignments at the Application-Level" in Administering Access Control for Oracle Enterprise Performance Management Cloud for details.
EPM Cloud Release Change Management Process

This appendix explores the Oracle Enterprise Performance Management Cloud release change management process (monthly updates, weekly patches, one-off patches, upgrade delays, and emergency patches).

Related Topics

- Understanding Oracle’s Change Management Process
- Resolving Regression Bugs in Test Environments
- Resolving Regression or Blocking Bugs in Production Environments
- Understanding Change Migration Procedures
- Requesting Upgrade Delay for Production Environments
- Requesting a Rollback of Production Environments
- How Oracle Communicates the Update Schedule

Understanding Oracle’s Change Management Process

Each Oracle Enterprise Performance Management Cloud subscription comprises two environments. If you have a four-stage process involving an environment each for development, test, acceptance, and production, which requires two additional environments, you must purchase a new subscription.

Oracle is responsible for change management process involved in updating the software and configuration of all environments. Any issue caused as the result of this process is defined as a regression.

You, and not Oracle, are responsible for the change management of custom artifacts such as dimensions, forms and reports in all environments. Migration of artifacts from one environment to another is a self-service operation.

Oracle delivers software and configuration updates through one of the following:

- **Monthly update**: Contains a set of features and bug fixes for all instances of all services. The monthly update is applied to the test environments on the first Friday of the month and to production environments on the third Friday of the month.

- **Weekly patch**: Includes bug fixes, mainly for fixing regression bugs found in test environments. Applied to all test environments on the second Friday of the month.

- **One-off patch**: Contains fixes for regression bugs, customer blocking bugs, or new features. One-off patches are applied to specific test environments on request.

Customers whose environments are updated with a one-off patch test the updated environments and provide approval to apply the patch to production environments. Subsequently, Oracle applies the one-off patch to their production environments.
Emergency patch: Contains one bug fix that needs to be applied immediately to an environment. This patch can be applied to test, production, or both as required.

Resolving Regression Bugs in Test Environments

Regression bugs found in test environments are fixed using a weekly patch or an emergency patch, which is applied to all test environments. Additionally, Oracle delays the update of production environments for all impacted customers to allow time to test the bug fix in test environments. If the regression issue is widespread, Oracle delays the update of production environments for all customers by cancelling the monthly update of production environments.

Resolving Regression or Blocking Bugs in Production Environments

Depending on the severity of the issue, Oracle may initially patch some or all environments.

Regression or blocking bugs found in production environments are fixed using a one-off patch on the test environment of the customer who reported the issue. After customer testing and approval, Oracle applies the patch to the production environment.

If the regression issue is widespread, Oracle will apply an emergency patch containing the fix to all test environments. After three business days, Oracle applies the fix to all production environments.

Oracle may apply the emergency patch to all test and production environments at the same time if the issue hinders the normal functioning of environments.

If a fix is not immediately available, for services other than Narrative Reporting, Oracle may revert the production environment to the state it was in before the monthly update. Reverting environments involves cleaning the environment, applying the last monthly update, and then reloading the backup from the previous month. Additionally, Oracle will provide a loaner test environment to customers who request for an additional test environment.

Understanding Change Migration Procedures

Monthly Update Migration flow is as follows:

- Tested and approved monthly update from Oracle Development to customer test environments
  - If no regression is found, Oracle updates all production environments.
  - Subsequently, customers may migrate applications from test to production.
  - If Oracle development confirms a customer reported issue as a regression, Oracle applies a one-off patch to test environment.
- One-off patch
  - Oracle Development confirms a customer reported issue as a regression.
  - Oracle Development creates a one-off patch and sends it to Quality Engineering for testing.
– After testing the one-off patch, Quality Engineering certifies it by signing off.
– One-off patch is applied to test environments.
– One-off patch is applied to production environment after the customer approves the fix. Environments are brought back to the mainline patch once the regression is fixed in a monthly patch.

• Upgrade delay
  A customer, citing a justification for the request, may seek a delay in updating a production environment. See "Requesting Upgrade Delay for Production Environments" for details.

• Emergency patch
  Deployment of emergency patches requires the approval of a Vice President in Oracle Enterprise Performance Management Cloud Development.
  – Oracle Development confirms a customer reported issue as a regression or blocker issue.
  – Oracle Development creates an emergency patch and sends it to Quality Engineering for testing.
  – After testing the patch, Quality Engineering certifies it by signing off.
  – Emergency patch is applied to test environment, production environment, or both as appropriate.

### Requesting Upgrade Delay for Production Environments

A customer, citing a justification for the request, may seek a delay in updating a production environment. You can seek to delay the upgrade of production environments in the following scenarios:

• You identified a regressive bug in the test environment. In this scenario, Oracle will fix the bug and then upgrade your environment without further delay. No customer approval is necessary for upgrading to the mainline.

• You are in the critical phase of your implementation project. In this scenario, Oracle will postpone the upgrade to the date that you agreed upon when requesting the delay. If you do not make an additional upgrade delay request, Oracle automatically upgrades the environment on the date that you agreed upon when requesting the delay.

• You want to skip this month’s update because you do not have the time to test the monthly update. In this scenario, Oracle automatically upgrades the environment in the next monthly update cycle.

• You want to skip this month or few months’ update because of quarter close or year end close. In this scenario, Oracle automatically upgrades the environment on the date or monthly cycle that was agreed upon.

Generally, customers migrating from on-premises to Oracle Enterprise Performance Management Cloud use the upgrade delay process. After they are comfortable with the upgrade cadence, they upgrade to the main line and then do not request upgrade delays.
Note:
Monthly update notifications will still be sent to the Service Administrators of the environments for which upgrade has been put on hold.

Repercussions of an Update Delay
Downside of an update delay includes the following:

- An environment that has not been updated in a monthly cycle requires a longer time to upgrade to the main line.
- After the production environment is brought to the mainline, you will incur more time to test (you will, essentially, be testing features and changes from multiple monthly updates).
- Security updates and bug fixes are applied to environments only when it is upgraded to the mainline

How to Request an Upgrade Delay
To request an upgrade delay, file a service request and provide the following information:

- URL of the environment for which upgrade is to be delayed.
- Reason (for example, regressive bug information, critical phase of implementation project, test environment not tested, quarter or year end close) why upgrade delay is being requested.
- If the upgrade delay is not because of a regressive bug, month when Oracle can merge the environment back to the mainline.
- Formal request in the following format:

  I, <Your name>, request Oracle to delay the upgrade of the environment <URL of the environment>

Requesting a Rollback of Production Environments
Except for Narrative Reporting environments, if a fix for a critical issue in an updated production environment is not immediately available, Oracle may revert the production environment to the state it was in before the monthly update. Reverting environments involves cleaning the environment, applying the last monthly update, and then reloading the backup from the previous month. Additionally, Oracle will provide a loaner test environment to customers who request an additional test environment.

How to Request a Rollback
To request a rollback, file a service request and provide the following information:

- URL of the production environment that needs to be rolled back
- Detailed information on the regressive bug that necessitates the rollback
- Information (date, time, and timezone) on when the environment will be free to be rolled back.
• Formal request in the following format:

I, <Your name>, request Oracle to roll back the environment <URL of the environment> to <previous version>

where <previous version> is the preceding Oracle Enterprise Performance Management Cloud version, for example Update 19.11.

How Oracle Communicates the Update Schedule

Generally, Oracle releases monthly updates on the first Friday of the month to all test environments. Oracle applies the update to test environments during the next daily maintenance after the release of the update.

Typically, production environments are patched on the third Friday of the month. See Understanding Updates to an Environment and Viewing Readiness Information.

The Enterprise Performance Management page of Oracle Cloud Readiness provides easy access to documents describing the new features included in the monthly update. It also identifies the update schedule for test and production environments. Additionally, Oracle notifies all Service Administrators of upcoming updates through an email, which is sent on the last Friday of the month (one week before the Test environment is updated).

Note:

Monthly update notifications will still be sent to the Service Administrators of the environments for which upgrade has been put on hold.