# Oracle® Enterprise Performance Management System

## Installation and Configuration Guide

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Oracle Enterprise Performance Management System Installation and Configuration Guide, Release 11.2.15.0.000

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# Contents

## 12 Upgrading EPM System (from 11.2.12+ to 11.2.15) using Out of Place Procedure

## G Performing Manual Configuration Tasks in a New Deployment

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1

# About EPM System Product Installations

**Related Topics**

- About EPM System Products
- Assumed Knowledge
- About Middleware Home, EPM Oracle Home, and EPM Oracle Instance
- About the Shared Services Registry
- Characters Supported for Installation and Configuration
- EPM System Deployment Documentation
- EPM System Update and Upgrade Policies

## About EPM System Products

This is the EPM System Release 11.2.15 Installation and Configuration Guide, see the Oracle Enterprise Performance Management System Documentation Release 11.2.x library for all Installation and Configuration Guides.

Oracle Enterprise Performance Management System products form a comprehensive Enterprise Performance Management system that integrates modular suites of financial management applications with the most comprehensive business intelligence capabilities for reporting and analysis. Major components of EPM System products:

- Oracle Hyperion Foundation Services
  - Foundation Services (includes Oracle Hyperion Shared Services and Oracle Hyperion Enterprise Performance Management Workspace)
  - Optionally, Oracle HTTP Server
  - Oracle WebLogic Server
  - Oracle Hyperion Calculation Manager
  - Oracle Smart View for Office
- Oracle Essbase
- Oracle Hyperion Financial Reporting
- Oracle's Hyperion Financial Performance Management Applications
  - Oracle Hyperion Planning
  - Oracle Hyperion Financial Management
  - Oracle Hyperion Profitability and Cost Management
  - Oracle Hyperion Financial Close Management
  - Oracle Hyperion Tax Governance
  - Oracle Hyperion Tax Provision
- Oracle's Data Management

- Oracle Hyperion Financial Data Quality Management, Enterprise Edition
- Oracle Data Relationship Management

# Assumed Knowledge

This guide is for administrators who install, configure, and manage Oracle Enterprise Performance Management System products. It assumes the following knowledge:

- Security and server administration skills
- Operating system administration skills
- Java web application server administration skills.
- A strong understanding of your organization's security infrastructure, including authentication providers such as Oracle Internet Directory, LDAP, or Microsoft Active Directory, and use of SSL
- A strong understanding of your organization's database and server environments
- A strong understanding of your organization's network environment and port usage

# About Middleware Home, EPM Oracle Home, and EPM Oracle Instance

**Middleware Home**

A Middleware home consists of the Oracle WebLogic Server home, and, optionally, one or more Oracle homes, including EPM Oracle home. A Middleware home can reside on a local file system or on a remote shared disk that is accessible through Network File System (NFS).

The Middleware home location is defined during the first product installation on the computer. Subsequent installations on the computer use the previously defined location. The default installation directory is `Oracle/Middleware`. The Middleware home location is referred to as *`MIDDLEWARE_HOME`* throughout this document.

**EPM Oracle Home**

An Oracle home contains installed files necessary to host a specific product, and resides within the directory structure of the Middleware home. The EPM Oracle home contains files for Oracle Enterprise Performance Management System products.

Components of EPM System products are installed in the EPM Oracle home directory under the Middleware home. The default EPM Oracle home location is *`MIDDLEWARE_HOME`*`/EPMSystem11R1`. In addition, common internal components used by the products are installed in EPM Oracle home. Choose the location carefully to ensure that the location has enough disk space for all products that you are installing on the machine. You cannot change the location.

The EPM Oracle home location is defined in the system environment variable called *EPM_ORACLE_HOME*. The EPM Oracle home location is referred to as *`EPM_ORACLE_HOME`* throughout this document.

In a distributed environment, the EPM Oracle home directory structure must be the same on each machine.

### EPM Oracle Instance

An EPM Oracle instance contains one or more system components such as Oracle HTTP Server, Oracle Essbase Server, as well as one or more Java web applications in one or more domains. The directory structure of an Oracle instance is separate from the directory structure of the Oracle home. It can reside anywhere; it need not be within the Middleware home directory.

The default location for the EPM Oracle instance is *MIDDLEWARE_HOME*/user_projects/epmsystem1. The EPM Oracle instance location is referred to as *EPM_ORACLE_INSTANCE* throughout this document.

Java web applications are deployed to *MIDDLEWARE_HOME*/user_projects/domains/*domainName*.

Typically, if you are installing all products on a single machine, for the first product you configure, you create a new EPM Oracle instance. For each product after that, you modify the existing EPM Oracle instance. If you are installing in a distributed environment, create a new EPM Oracle instance on each machine.

## About the Shared Services Registry

The Oracle Hyperion Shared Services Registry is part of the database that you configure for Oracle Hyperion Foundation Services. Created the first time that you configure Oracle Enterprise Performance Management System products, the Shared Services Registry simplifies configuration by storing and reusing the following information for most EPM System products that you install:

- Initial configuration values such as database settings and deployment settings
- The computer names, ports, servers, and URLs you use to implement multiple, integrated, EPM System products and components
- Oracle Essbase failover content

Configuration changes that you make for one product are automatically applied to other products used in the deployment.

You can view and manage the contents of the Shared Services Registry using Lifecycle Management in the Oracle Hyperion Shared Services Console. See the *Oracle Enterprise Performance Management System Lifecycle Management Guide*.

## Characters Supported for Installation and Configuration

The following characters are supported during installation and configuration with EPM System Installer and EPM System Configurator.

**Table 1-1 Characters Supported for Installation and Configuration**

| Fields | Supported Characters | Blocked Characters |
|---|---|---|
| PATH | Alphanumeric, dash (-), underscores (_), periods ( . ), and tildes (~). Tildes are supported only on Microsoft Windows. | All others |

**Table 1-1 (Cont.) Characters Supported for Installation and Configuration**

| Fields | Supported Characters | Blocked Characters |
|---|---|---|
| Host name | Alphanumeric, dash (-), and dot(.).<br>Oracle Enterprise Performance Management System supports IPv6 addresses. However, during installation and configuration, you must enter the host name, not the IPv6 address. | All others |
| User name | Alphanumeric characters including non-English (extended and double-byte) characters, except for the blocked characters | . + * / # [ ] { } ( ) ; : , @ ! " - |
| Clusters, database names, and other general fields such as DSN names | Alphanumeric characters including non-English (extended and double-byte) characters, except for the blocked characters | + . - * \ / # [ ] { } ( ) ; : , @ ! " |
| *MIDDLEWARE_HOME*, *EPM_ORACLE_HOME* and *EPM_ORACLE_INSTANCE* | For *MIDDLEWARE_HOME*: Alphanumeric characters, "_", "-" and "~" on Windows.<br>For *EPM_ORACLE_INSTANCE*: Alphanumeric characters, "_", "-" The first character in every folder in the *EPM_ORACLE_INSTANCE* path must be a-z, A-Z, or 0-9. | Do not use any of the following symbols or symbol combinations in the directory that you specify for *EPM_ORACLE_HOME* or *MIDDLEWARE_HOME* during installation or *EPM_ORACLE_INSTANCE* during configuration:<br>`/t`<br>`\t`<br>`\b`<br>. |

# EPM System Deployment Documentation

**Related Topics**

- Deployment Paths
- Accessing Documentation

## Deployment Paths

Use this section to determine which deployment path to use and which installation documentation to use, depending on your needs.

**Table 1-2 Available Deployment Paths**

| Base Deployment: Pick One | When to Choose This Option | Use This Guide |
|---|---|---|
| **Standard deployment** | Use as the best practice approach for deploying to a distributed test or production environment on Windows, including scaleout. | *Oracle Enterprise Performance Management System Standard Deployment Guide* |
| **New or custom deployment** | Use when the standard deployment approach does not meet your requirements; for example, when you require a manual deployment.<br>Use for a new deployment. | Installing EPM System Products in a New Deployment in *Oracle Enterprise Performance Management System Installation and Configuration Guide* |
| **Upgrade** | Use to upgrade from Release 11.1.2.4.xxx. Upgrade is installing to a new environment and migrating data and other artifacts. | Upgrading EPM System (from 11.1.2.4 to 11.2.8) |
| **Apply Update** | Use to apply an update from Release 11.2.x to Release 11.2.15. | Applying an Update to EPM System Products |

## Perform Additional Configuration Options

**Table 1-3 Perform Additional Configuration Options**

| Task | Related Documentation |
|---|---|
| Perform additional deployment configuration options after completing a standard or custom deployment, such as scaling out or rehosting services | *Oracle Enterprise Performance Management System Deployment Options Guide* |
| Perform additional security configuration options after completing a standard or custom deployment, such as configuring user directories or reconfiguring to use SSL | *Oracle Enterprise Performance Management System Security Configuration Guide* |

## Perform Ongoing Administration

**Table 1-4 Perform Ongoing Administration**

| Task | Related Documentation |
|---|---|
| Perform security administration tasks, such as provisioning users and groups with the appropriate roles | *Oracle Enterprise Performance Management System User Security Administration Guide* |
| Migrate applications from one environment to another, such as from test to production | *Oracle Enterprise Performance Management System Lifecycle Management Guide* |
| Troubleshoot problems with your deployment | *Oracle Enterprise Performance Management System Installation and Configuration Troubleshooting Guide* |
| Create a backup of product and application data | *Oracle Enterprise Performance Management System Backup and Recovery Guide* |

## Accessing Documentation

Find the latest Oracle Enterprise Performance Management System installation and product guides in the Oracle Help Center (https://docs.oracle.com/en/). To access documents to view or download, click the Applications icon. In the Applications Documentation window, select the Enterprise Performance Management tab, and then look for your release in the Enterprise Performance Management list.

You can also find deployment-related documentation on the Oracle Technology Network (http://www.oracle.com/technetwork/index.html) and on the Oracle Software Delivery Cloud website (http://edelivery.oracle.com/EPD/WelcomePage/get_form).

# EPM System Update and Upgrade Policies

This topic outlines the update and upgrade policies for Oracle Enterprise Performance Management System.

### Update Policies

- An EPM System update is applied on top an existing installation of EPM System Release 11.2.x.
- EPM System Release update 11.2.15 has a prerequisite of EPM System Release update 11.2.12, 11.2.13, or 11.2.14. See Supported Paths to this Release for more details.
- EPM System updates are released on a quarterly basis, generally in January, April, July, and October.
- Updates include changes for all embedded components, such as WebLogic and Java, as needed.
- Any customer patches that were released are rolled into the next update.
- Applying an update removes all patches applied to the previous update.
- Updates are expected to be easy to apply and have minimum impact for you to absorb.

### Upgrade Policies

To upgrade, you deploy EPM System Release 11.2.x software on a new machine and migrate EPM System Release 11.1.2.4.xxx artifacts (such as applications, metadata, and security) and data to the new deployment. See Upgrading EPM System in *Enterprise Performance Management System Installation and Configuration Guide*.

### Error Correction Policy

For information on the **Oracle Enterprise Performance Management Error Correction Policy**, visit these My Oracle Support articles:

- Oracle Enterprise Performance Management (EPM) 11.2 Software Error Correction Policy [Doc ID 2749950.1]
- Oracle Enterprise Performance Management (EPM) Release 11.2 Grace Periods for Error Correction [Doc ID 2627593.1]

2

# About EPM 11.2.15 and Essbase 21c

**Related Topics**

- What's changed in EPM 11.2.15?
- Impact of Essbase 21c on EPM 11.2.15

## What's changed in EPM 11.2.15?

Oracle Enterprise Performance Management (EPM) 11.2.15 comes with a number of important changes. This section contains a summary of changes and features you will find in this release.

Oracle recommends that you read the 11.2.15 Readme in its entirety before installing Release 11.2.15. Specifically, review the New Features: 11.2.15 to understand all the available new features.

- Oracle Essbase 21c (Version 21.5.3) is now embedded with EPM System release 11.2.15.
- Added support for Linux 8.0.
- For Profitability and Cost Management:
  - Beginning with Release 11.2.15, only Unicode mode Essbase applications are supported. The Unicode checkbox in the New Application dialog is now disabled and grayed out. By default, all the new Essbase applications will be set to Unicode mode. The existing non-Unicode applications will be automatically converted to Unicode during the 11.2.15 upgrade.
  - For Profitability and Cost Management Standard Applications, the Essbase Web Interface Jobs Page is the new approach for loading data into the calculation cube or the reporting cube. Please refer to the Load Data details within Jobs Page documentation. See Run and Manage Jobs Using the Web Interface for more details on loading data.
- Support for **Console mode** has been removed from EPM System Configurator. See Installing EPM System Products for more details about the other installation options for EPM system products.

See Impact of Essbase 21c on EPM 11.2.15 to learn more about the impact of Essbase 21c on EPM Release 11.2.15.

## Impact of Essbase 21c on EPM 11.2.15

**Installation and Configuration Changes**

- Oracle Essbase 21c is embedded with EPM 11.2.15.
- Ensure that there is at least three times as much free space as the total size of the Essbase cube in your `temp` directory when upgrading from Release 11.1.2.x to Release 11.2.15. For example, if the data size of the Essbase cube is, for example, 10 GB, then there must be 3 * 10 (30 GB) of space available in your `temp` directory.

This space will be cleaned up after the upgrade process and is only used for temporary purposes.

- All Essbase components can be configured using the EPM configurator, or you can choose which Essbase/EAS/APS components are needed. However, adding individual Essbase components to the same server after the initial configuration is not supported.
- If you are using Windows 2016, see the post-configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.
- Essbase 21c supports only Unicode applications. All the newly created Essbase applications are Unicode by default. You can still create non-Unicode apps with CAPI, JAPI, MAXL, and EAS.
- The requirement for HPCM or APS to be deployed on the same host is no longer applicable.
- Change in the default value of **Esslang**, the Essbase environment variable that defines the encoding used to interpret text characters. The only supported ESSLANG value is `.UTF-8@Binary`.
- Updates to Essbase Ports: see Essbase Ports.
- Changes to the Essbase 21c install and deployment location: see Essbase Install and Deployment Location.
- Changes to Essbase Client URLs: see Essbase URLs.
- Changes to Essbase logs location: see Essbase logs.
- Changes to Essbase Configuration Settings: see Configure Essbase Server.
- Essbase 21c System Requirements for Linux: See System Requirements for Linux.

### Essbase Administration Services Lite Changes

- Essbase Administration Services (EAS) is replaced with Essbase Administration Services (EAS) Lite in Essbase 21c. See Using Essbase Administration Services (EAS) Lite for more details.
- Every Essbase 21c instance comes with its own EAS instance. You can choose one of the EAS instances to manage all the Essbase instances.
- Several MaxL statements related to user/group administration are deprecated. See History of Removed Features.
- Essbase filter assignment through Shared Services is no longer supported.
- When upgrading to EPM 11.2.15, the APS read-only cluster definitions (`domain.db` file) is not moved from Essbase 11g to Essbase 21c.
- With Essbase Administration Services lite, provider services configuration is no longer supported. Alternatively, APS read-only clusters, which are ineligible for configuration through Essbase Adiminstration Services in 11.1.2.4, can be set up using newly provided scripts. See Access multiple Essbase servers for more details.

### Start and Stop Changes

- Changes to Essbase start and stop scripts: see Essbase Server
- Essbase 21c does not support Oracle Process Manager and Notification Server(OPMN).

### High Availability and SSL Configuration Changes

- Essbase 21c removes the limitation of the maximum of 2 nodes per cluster.

- SSL for Essbase 21c Configuration procedure has changed. See SSL for Essbase 21c for more information.
- The **Join Cluster Button** is disabled in Essbase Configuration tool. Essbase HA Configuration has changed.
- Essbase 21c uses a central request leasing system to manage Essbase failover.

### Essbase 21c Client Installer Changes

Essbase 21c Client Installer, which includes the MaxL client, Runtime Client (RTC), Java APIs (JAPI), and complete client libraries, are downloadable through Essbase Web Interface. See Downloading Essbase 21c Clients for more information.

### Essbase 21c Information Sources

- Differences in features and functionality between Essbase 11g and Essbase 21c, see Differences between Essbase 11g and Essbase 21c.
- Configure Essbase Servers in a Failover Cluster.

3

# EPM System Architecture

**Related Topics**

- About EPM System Architecture
- Essbase Components
- FDMEE Components
- Financial Close Management Components
- Financial Management Components
- Planning Components
- Profitability and Cost Management Components
- Financial Reporting Components
- Tax Governance Components
- Tax Provision Components

## About EPM System Architecture

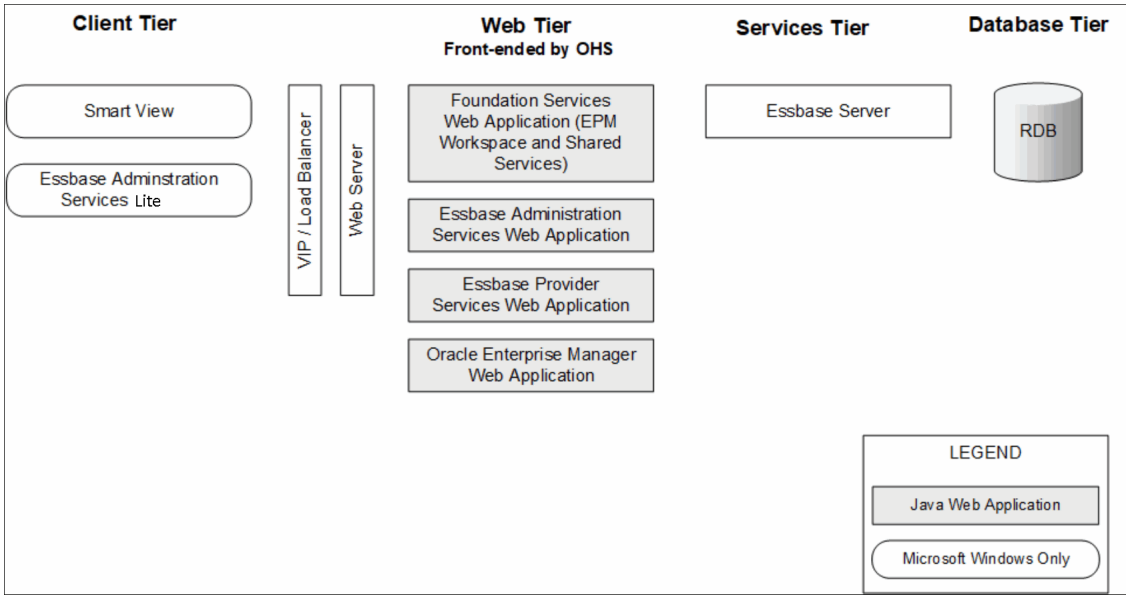
Oracle Enterprise Performance Management System is a multi-tier application environment that mainly utilizes thin-client architecture for end-user access, requiring only a supported browser on the client machine. Network traffic between the client and middle-tier server(s) generally does not exceed more than normal web traffic.

A middle-tier application server is required. Oracle WebLogic Server is provided with a default installation.

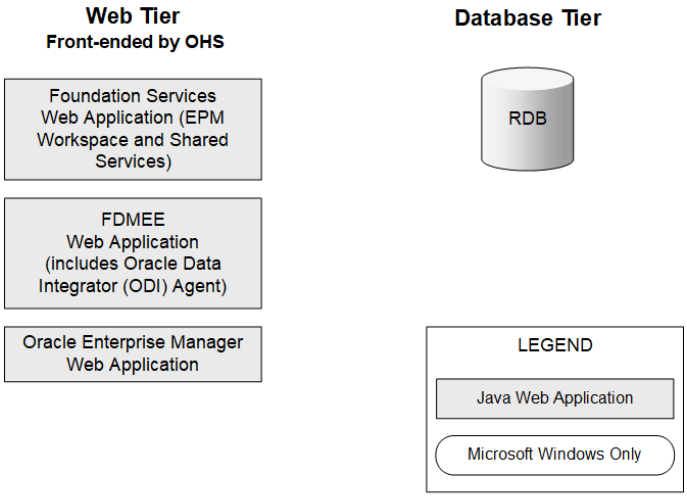
The data tier is comprised of two components that store data differently. In Oracle Essbase environments, the data is stored and calculated in the database on the server file system. In Oracle Hyperion Financial Management environments, the application framework, metadata, and textual data are stored in a relational repository.

> **Tip:**
>
> For optimum viewing of the component architecture diagrams in PDF format, try increasing the view magnification to 120%.

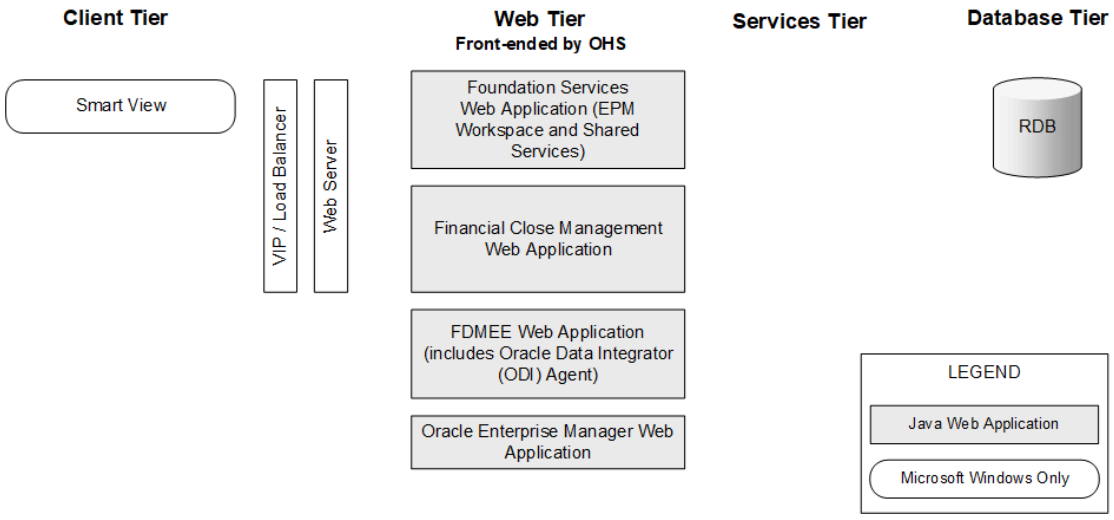
## Essbase Components




# FDMEE Components




# Financial Close Management Components



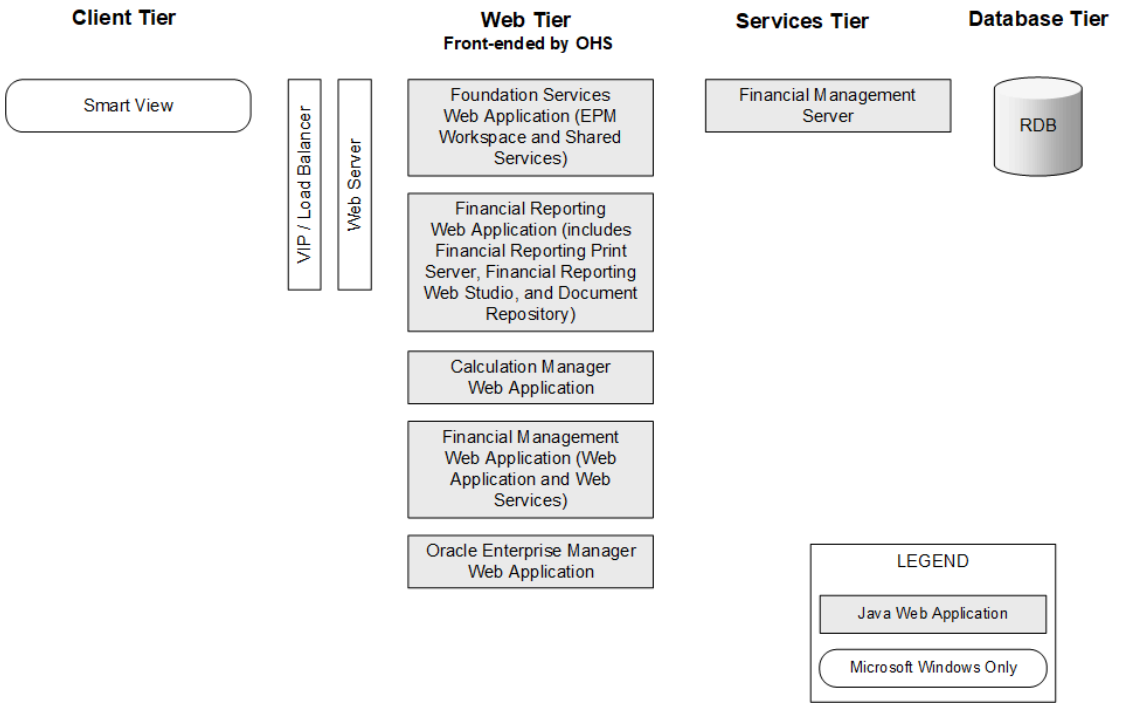

## Stand-Alone Financial Close Management Deployment Requirements for Test and Production

A stand-alone version of Oracle Hyperion Financial Close Management can be deployed independently of other Oracle Enterprise Performance Management System products in a two-server deployment as specified below. The following specification supports 500 users (175 active).

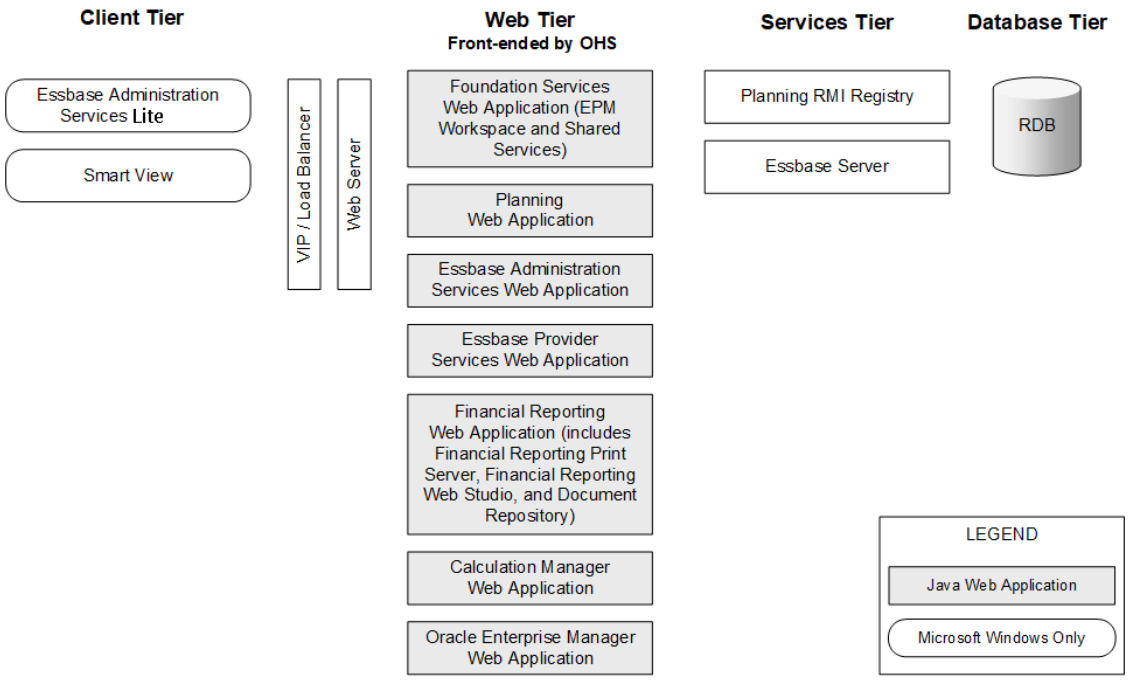
**Table 3-1 Financial Close Management Deployment Specifications**

| Machine | Products | Processor/Memory |
|---|---|---|
| Server 1 | • WebLogic Admin Server<br>• Oracle Hyperion Foundation Services Java Web application (Oracle Hyperion Enterprise Performance Management Workspace and Oracle Hyperion Shared Services)<br>• Oracle SOA Suite<br>• Oracle HTTP Server | 4 Core 2 CPU – 16GB |
| Server 2 | • Financial Close Management Java Web application<br>• Oracle Hyperion Financial Data Quality Management, Enterprise Edition Java Web application | 4 Core 2 CPU – 16GB |

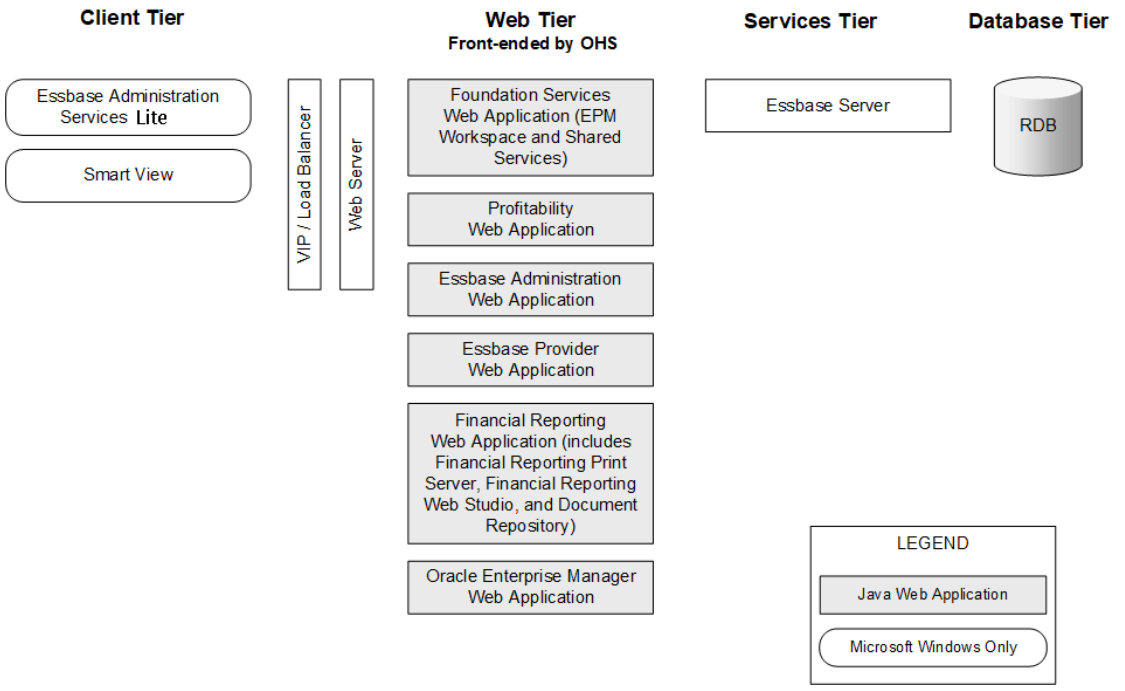
# Financial Management Components



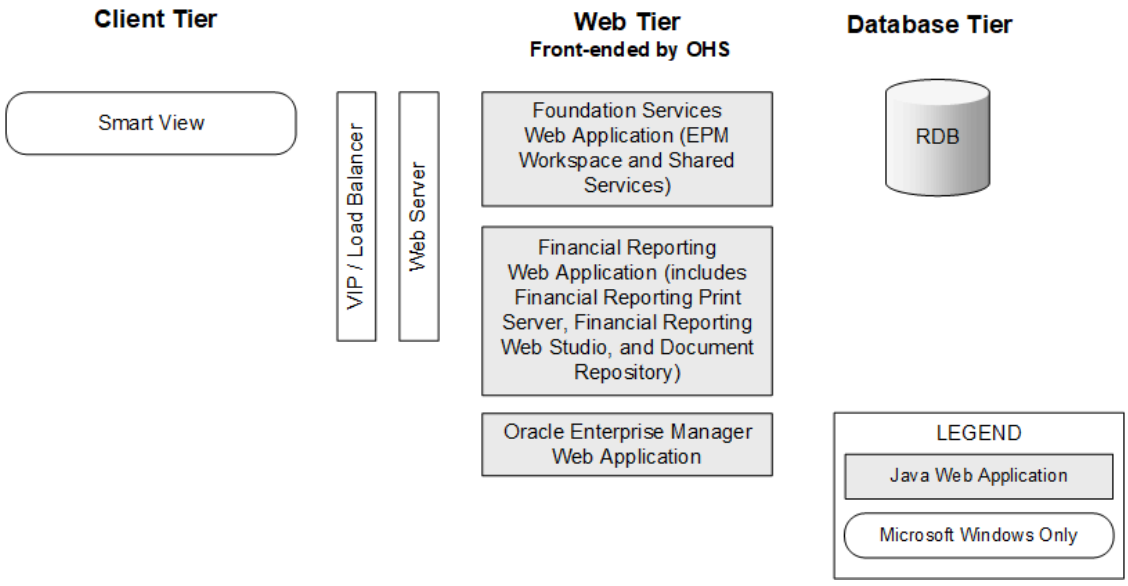

# Planning Components



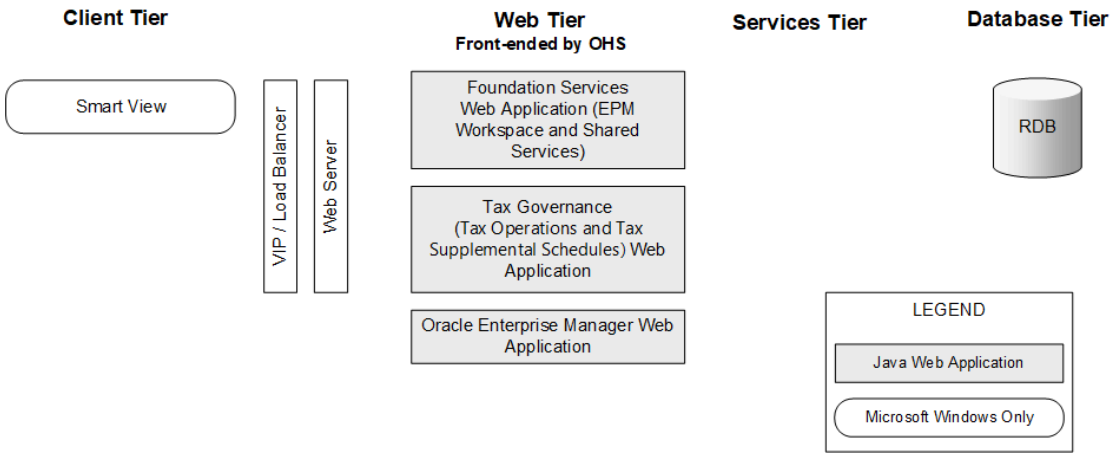

# Profitability and Cost Management Components



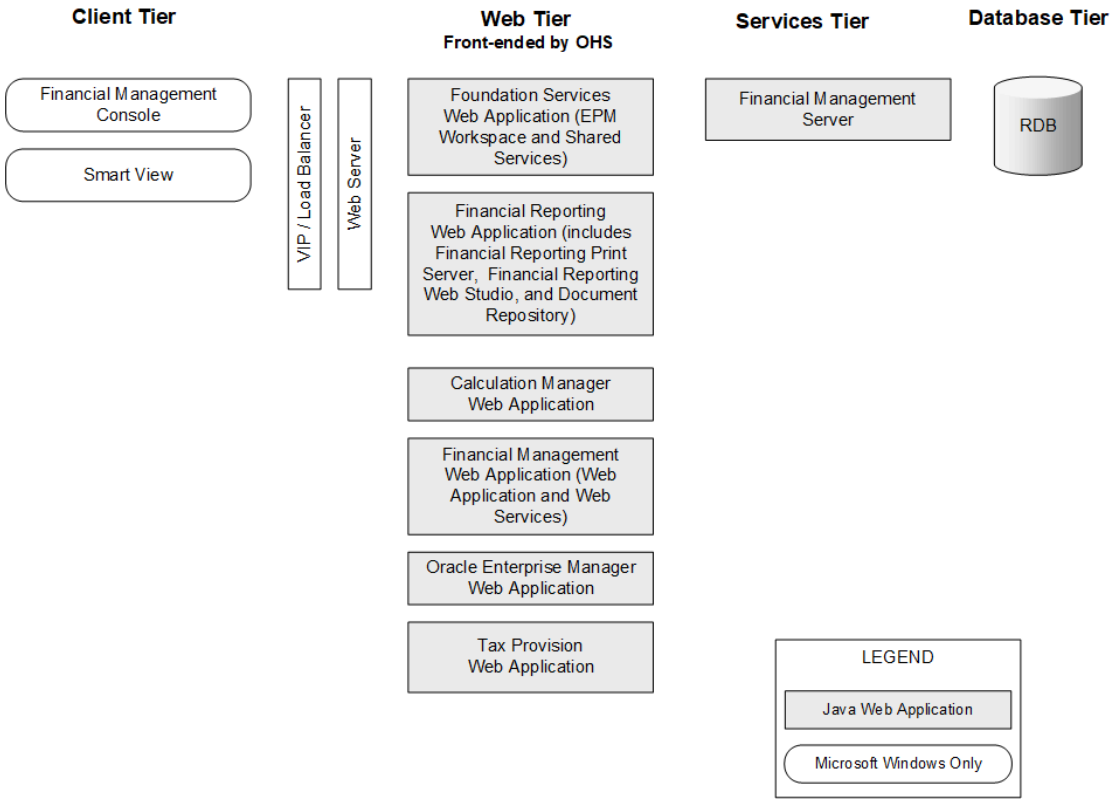

# Financial Reporting Components




# Tax Governance Components




# Tax Provision Components



# 4 Supported Paths to this Release

You can move to Oracle Enterprise Performance Management System Release 11.2.15 from any of the following releases:

**Table 4-1 Supported Paths to Release 11.2.15**

| From | Update to | Upgrade to |
|---|---|---|
| Release 11.1.2.4.xxx | | 11.2.8.0.000 |
| Release 11.2.0.0.000 to Release 11.2.7.0.000 | Release 11.2.8.0.000 | |
| Release 11.2.8.0.000 | • Release 11.2.12.0.000 or<br>• Release 11.2.13.0.000 or<br>• Release 11.2.14.0.000 | |
| • Release 11.2.12.0.000 or<br>• Release 11.2.13.0.000 or<br>• Release 11.2.14.0.000 | Release 11.2.15.0.000 | |

- If you are upgrading from Release 11.1.2.4.xxx, see Upgrading EPM System (from 11.1.2.4 to 11.2.8).
- If you are applying an update from Release 11.2.x, see Applying an Update to EPM System Products.

# 5
# Preparing Your Environment

**Related Topics**

- Preparing Servers
- Preparing User Accounts
- Disk Space and RAM
- Preparing a Database
- Preparing Java Web Application Servers
- Preparing Web Servers
- Preparing Web Browsers

## Preparing Servers

**Related Topics**

- Applying Windows Updates
- Resolving Port Conflicts
- Disabling User Access Control
- Enabling User Access Control
- Synchronizing Clocks
- Resolving Host Names
- Disabling Anti-virus Software
- Shared File System
- 8.3 Name Creation
- Access Control List (Linux)

### Applying Windows Updates

For each server in the deployment, apply Windows updates and reboot before installing and configuring.

### Resolving Port Conflicts

For information about default port numbers for Oracle Enterprise Performance Management System products, including where the port can be configured, see Ports.

### Disabling User Access Control

Disable User Access Control (UAC) on each Windows server during the configuration process. This can be done through User Accounts in the Control Panel by clicking on Change User

Account Control Settings, and then dragging the slider down to Never notify. You must have administrator privileges to perform this task.

UAC must still remain disabled during the Installation and update process.

> **Note:**
>
> To fully disable UAC, you must disable the policy **User Account Control: Run all administrators in Admin Approval Mode**.

## Enabling User Access Control

You can now enable User Access Control (UAC) post configuration tasks. This can be done through User Accounts in the Control Panel by clicking on **Change User Account Control Settings**, and then dragging the slider up to **Always notify**.

To enable UAC, you must perform the steps below:

1. Run the script:

   ```
   Script Path:
   MIDDLEWARE_HOME\EPMSystem11R1\common\config\11.1.2.0\enableUACforEPM.bat
   Syntax: enableUACforEPM.bat  MIDDLEWARE_HOME/user_projects/domains/
   domainName

   For example:
   Script Path:
   D:\Oracle\Middleware\EPMSystem11R1\common\config\11.1.2.0\enableUACforEPM.b
   at
   Syntax: enableUACforEPM.bat
   D:\Oracle\Middleware\user_projects\domains\EPMSystem
   ```

2. Enable User Access Control (UAC) and disable **Act as part of the operating system**. You can disable **Act as part of the operating system** by following the steps below:
   a. Navigate to Windows **Security Settings**, then **Local Policies**, and then **User Rights Assignment**. Double-click **Act as part of the operating system**, and then select the User or Group and click **Remove**.
   b. Click **Apply**, and then click **OK**.
3. Reboot the machine for UAC changes to take effect.
4. You must now start all the services. For information about starting services, see Starting and Stopping EPM System Products.

## Synchronizing Clocks

The clock on each server must be synchronized to within one second difference. To accomplish this, point each server to the same network time server. Refer to your operating system documentation for more information.

## Resolving Host Names

The canonical host name of each server must be the same when accessed from within the server and from other servers in the deployment. You may want to create a local hosts file on each server to resolve host name issues.

Oracle Enterprise Performance Management System uses Java's canonical host name resolution for resolving host names. To validate host names as resolved by Java, EPM System provides a utility (`epmsys_hostname.bat|sh`). An archive of the utility (`epmsys_hostname.zip`) is available in *`EPM_ORACLE_HOME`*`/common/config/11.1.2.0`. Run the utility after installation and before configuration.

## Disabling Anti-virus Software

Disable the anti-virus software before you install and configure EPM System Release 11.2.15. Ensure that you have the anti-virus software disabled for the entire duration of the installation and configuration process. Anti-virus software can be re-enabled when the installation and configuration is complete.

Antivirus software can cause performance issues with EPM System products if, each time you access any resource on the server, the antivirus software tries to open and scan the object. To prevent these issues, exclude the EPM Oracle home directory from automatic antivirus scans and scan this directory only at scheduled times.

## Shared File System

If you are configuring for high availability, you must set up a shared file system using UNC syntax that is accessible from all the servers in the deployment for Oracle Hyperion Enterprise Performance Management System Lifecycle Management artifacts.

Optionally, you can also use the shared file system for the following:

- Installation files downloaded from Oracle Software Delivery Cloud
- Oracle HTTP Server configuration files to simplify configuration in a distributed environment
- Oracle Hyperion Financial Data Quality Management, Enterprise Edition application data

> **Note:**
>
> If you are configuring a Essbase Failover environment in Windows, ensure that the common shared Essbase application directory is mounted on the same drive (for example, `Z:`) on the nodes and use it as the application directory in the EPM configuration tool.
>
> UNC Shared directory path is not supported as Essbase application directory in Windows.

## 8.3 Name Creation

8.3 name creation must be turned ON for servers used for Oracle Enterprise Performance Management System installation. This must be turned on for engine to work with long file names or with spaces and nonstandard characters in the file name during conversion.

**To validate if 8.3 File Naming is enabled or disabled**:

1. Open a command prompt window
2. Type `fsutil 8dot3name query` and press the **Enter** key.
   The result should be similar to: `The registry state of NtfsDisable8dot3NameCreation is: X`. The registry state values and descriptions are as follows:
   - 0 = 8.3 name creation is enabled on all volumes on the system
   - 1 = 8.3 name creation is disabled on all volumes on the system
   - 2 = 8.3 name creation is enabled per volume on the system (default value)
   - 3 = 8.3 name creation is DISABLED on all volumes except the system volume

   If the value is 0, 8.3 File Naming is enabled on all volumes on the system.

**To enable 8.3 Name Creation**:

1. Click Start > Run
2. Type `regedit` and click **OK**.
3. In the Registry Editor, go to:
   `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\FileSystem`.
4. Right-click the **NtfsDisable8dot3NameCreation** entry and select **Modify** from the drop-down menu. The **Edit DWORD Value** page opens.
5. In the **Value data** text box, enter 0.
6. Click **OK** to close the page.

Note: It is not recommended to disable the 8.3 File Naming post Installation and Configuiration as some startup services will not work if it is disabled.

## Access Control List (Linux)

Access Control List (ACL) must be turned OFF for the filesystem for the Middleware installation location.

# Preparing User Accounts

Windows:

- Run EPM System Installer and EPM System Configurator as an administrator. Install and configure as an administrator for all Oracle Enterprise Performance Management System products.
- Assign local policies if required by your product. For Windows, the user ID typically requires "Act as part of the OS, Bypass Traverse Checking, Log on as a batch job, and Log-on as a service."
- The user installing EPM System must have full access to *Drive*`:/Temp` and *Drive*`:/Windows/Temp`.

- When you patch this server, use the same user account that was used to install and configure the earlier release.

Linux

- Prepare a user account (not the root user). Install and configure as the same user for all EPM System products. On Linux machines, for all Oracle products, the user that is installing must be part of the same group; the group must have write permission to the central inventory (oraInventory).
- If you have installed any other Oracle products, the user who will be installing EPM System products must be in the same group as the user who installed the other Oracle products. For example, both users must be part of oinstall.

The password for the account used to install and configure must conform to the following guidelines:

- Contain at least one uppercase letter
- Contain at least one numeral
- Be at least eight characters long
- Contain no special characters

# Disk Space and RAM

This section describes client and server disk space and RAM requirements for Oracle Enterprise Performance Management System products.

## Client Disk Space and RAM

Disk space and RAM requirements are approximate. The installation program checks for twice the required disk space, based on your product installation choices.

The recommended RAM requirement for all clients is 1 GB.

> **Note:**
>
> Web browser clients have no disk space requirements beyond those of the web browser.

| Product Family | Component | Disk Space (Minimum)[1] | Notes |
|---|---|---|---|
| EPM System Installer | EPM System Installer and all Oracle Enterprise Performance Management System product assemblies | 16 GB | After installation, the installation files and assemblies can be removed. |
| Foundation Services | Common client components | 400 MB | |
| | Oracle Smart View for Office for Office | 100 MB | |
| Oracle Essbase | Essbase Runtime Client | 150 MB | |
| | Oracle Essbase Administration Services Console | 300 MB | |

1 Disk space does not include the common client components installed on the machine with Oracle Hyperion Foundation Services.

# Server Disk Space and RAM

Disk space and RAM requirements are approximate and do not include additional possible requirements on the machine. The installation program checks for twice the required disk space, based on your product installation choices. Disk space estimates include documentation help files (if applicable) and Oracle Enterprise Performance Management System components.

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Oracle WebLogic Server<br>(includes WebLogic, JDK, utils, and Modules) | 1.4 GB | 500 MB |
| Oracle HTTP Server (optional component) | 1.2 GB | 1 GB |
| Common Oracle libraries | 900 MB | NA |
| Oracle Hyperion Shared Services | 800 MB[1] | 1.5 GB |
| Oracle Hyperion Calculation Manager | 45 MB | 256 MB |
| Oracle Essbase Server | 3 GB | 1 GB |
| Application Programming Interface | 40 MB | 256 MB |
| Oracle Essbase Administration Services | 1 GB[2] | 32 MB multiplied by the number of concurrent Administration Services users<br>For example, 32 MB * 10 users = 320 MB |
| Oracle Hyperion Provider Services | 680 MB | 340 MB |
| Oracle Hyperion Financial Reporting | 400 MB | 1 GB |
| Oracle Hyperion Financial Management Server (dedicated to Financial Management Server)<br>This recommendation does not take into account having the database on the same server.<br>This recommendation is for a small application. Increase as needed based on application size. | 64GB (10 GB available) | Processor: 8 core<br>Memory: 64 GB |
| Financial Management (dedicated to Financial Management Web )<br>This recommendation does not take into account having the database on the same server.<br>This recommendation is for a small application. Increase as needed based on application size. | 16GB | Processor: 4 core<br>Memory: 16 GB |
| Database Server for Financial Management<br>This recommendation is for a small application. Increase as needed based on application size. | 500 GB | 64 GB |

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Oracle Hyperion Financial Close Management | 8 GB [3] | 4GB.<br>A user base of 200 concurrent active users can be supported with a JVM memory allocation of 4GB. A small user base of 10 to 15 concurrent active users can be supported with a JVM memory allocation of only 650MB.<br>For additional details, see the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |
| Oracle Hyperion Tax Governance | 8 GB | 4GB.<br>A user base of 200 concurrent active users can be supported with a JVM memory allocation of 4GB. A small user base of 10 to 15 concurrent active users can be supported with a JVM memory allocation of only 650MB.<br>For additional details, see the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |
| Oracle Hyperion Tax Provision | 64 GB (10 GB available) | 4 GB |
| Oracle Hyperion Planning | 8 GB (10 GB available) | 2 GB |
| Oracle Hyperion Profitability and Cost Management | 8 GB | 2 GB |
| Oracle Hyperion Financial Data Quality Management, Enterprise Edition | 300 MB | 2 GB |
| Oracle Data Relationship Management Database Server | 15 GB | 2 GB |
| Data Relationship Management Application Server | 500 MB | 2 GB |

1 This number is for the base Shared Services installation. If using Lifecycle Management functionality, Oracle recommends that you significantly increase disk space because application artifacts are exported and stored in the Shared Services file system.
2 Allow extra disk space for data files and outline files that are copied to Administration Services during data loading and outline editing, respectively.
3 Requirements for Oracle SOA Suite are not included.

> **Note:**
>
> For data storage and binary installation, Essbase supports the use of a disk array device.

# Preparing a Database

Before you install and configure most Oracle Enterprise Performance Management System products, create a database using a supported RDBMS.

In general, the database should be in the same data center as the EPM System deployment. To prevent timeout issues when configuring with EPM System Configurator, you cannot locate a database in a remote location where there is latency.

For simplicity and ease of deployment, you can use one database repository for all products (with the exceptions noted below). In most cases, configure separate databases for products. Consider performance, rollback procedures for a single application or product, and disaster recovery plans.

The following products and product components require unique databases:

- Oracle Hyperion Planning – Each Planning application should have its own repository.
- Oracle Data Relationship Management. See the *Oracle Hyperion Data Relationship Management Installation Guide*.

The following products must use the same database schema:

- Oracle Hyperion Financial Close Management
- Oracle Hyperion Tax Governance
- Account Reconciliation Manager
- Supplemental Data Manager
- Tax Supplemental Schedules

# Using an Oracle Database

This section includes information about Oracle database installation, database creation, required roles and privileges, sizing guidelines, and configuration.

> **Note:**
>
> EPM System Installer installs the Oracle Database client automatically if it is required on a machine (Windows only). To use an existing Oracle Database client, see Using an Existing Oracle Database Client.
>
> If you are installing Oracle Database client using EPM System Installer, the service account cannot include a hyphen.

## Oracle Database Creation Considerations

The database **must** be created using Unicode Transformation Format UTF-8 encoding (character set). Oracle supports the following character sets with UTF-8 encoding:

- AL32UTF8 (UTF-8 encoding for ASCII platforms)
- UTF8 (backward-compatible encoding for Oracle)
- UTFE (UTF-8 encoding for EBCDIC platforms)

Oracle recommends that you add a prefix to the user name that will correspond to the RCU schema prefix used during configuration.

> **Note:**
>
> For Oracle Data Relationship Management, the database needs to use these database parameters:
>
> - NLS_NCHAR_CHARACTERSET AL16UTF16
> - NLS_CHARACTERSET AL32UTF8
>
> For optimal performance, when cloning schemas in a Data Relationship Management environment, Oracle recommends the use of `datapump` over copying schemas using the Data Relationship Management Console repository wizard.

## Oracle Database Privileges and Parameters

- Grant privileges to database users:
  - CREATE ANY SYNONYM
  - CREATE CLUSTER
  - CREATE INDEXTYPE
  - CREATE PROCEDURE
  - CREATE SEQUENCE
  - CREATE SESSION
  - CREATE TABLE
  - CREATE TRIGGER
  - CREATE TYPE
  - CREATE VIEW
  - DROP ANY SYNONYM
- Set parameters:

```
ALTER SYSTEM SET processes=2000 SCOPE=SPFILE;
ALTER SYSTEM SET OPEN_CURSORS=5000 SCOPE=SPFILE;
ALTER SYSTEM SET SESSION_CACHED_CURSORS=200 SCOPE=SPFILE;
ALTER SYSTEM SET SESSIONS=2000 SCOPE=SPFILE;
```

- The `sqlnet.ora file` in the database server (in `%ORACLE_HOME%\product\xx.x.x\dbhome_1\network\admin\sqlnet.ora`) should have the following setting: `sqlnet.expire_time=10`
- Set the `max_string_size` setting to `standard`.

For Oracle Database, for performance reasons, the database block size should be no larger than 8k.

After setting parameters, restart Oracle Database (both the Listener and the Oracle Database service).

> **Tip:**
>
> Optionally, you can specify unlimited quota for EPM schemas.

EPM System database accounts must be created in a tablespace with a minimum initial capacity of 1 GB.

## Oracle Database Sizing Guidelines

Oracle recommends that you set tablespaces with Auto Extend ON.

The following table describes the Oracle Database sizing guidelines.

| Product | Sizing Guideline |
|---|---|
| Oracle Hyperion Shared Services & Oracle Hyperion Enterprise Performance Management Workspace | Start with 100 MB, and add more as the number of migrations with Lifecycle Management and the number of audit records increases. |
| Oracle Essbase Administration Services | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Oracle Hyperion Financial Reporting | The amount of space needed depends on the aggregate size of the objects that you plan to store in the repository.<br>Oracle recommends starting with at least 250 MB, which provides space to expand the Document Repository without having to increase the data file or tablespace. A shared pool size of 60 MB is used during configuration with EPM System Configurator. |
| Oracle Hyperion Planning and Oracle Hyperion Calculation Manager | • 100 MB for applications with 5,000 or fewer total members<br>• 200 MB for applications with 15,000 or fewer total members<br>**Note:** You can adjust the size of the system table database to match the size of the application. |
| Oracle Hyperion Financial Management and Calculation Manager | • 100 MB for applications with 5,000 or fewer total members<br>• 200 MB for applications with 15,000 or fewer total members<br>**Note:** You can adjust the size of the system table database to match the size of the application. |
| Oracle Hyperion Financial Close Management | See the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |
| Oracle Hyperion Tax Governance | See the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |

| Product | Sizing Guideline |
|---|---|
| Oracle Hyperion Tax Provision | • 100 MB for applications with 5,000 or fewer total members<br>• 200 MB for applications with 15,000 or fewer total members<br>**Note:** You can adjust the size of the system table database to match the size of the application. |
| Oracle Hyperion Profitability and Cost Management | Oracle recommends starting with at least 250 MB. |

## Oracle Database Tablespace Considerations

The following table describes the Oracle Database tablespace considerations.

| Product | Tablespace Considerations |
|---|---|
| General—All products | • Consider a global view of tablespaces and allocate one or more tablespaces in order to spread out tables created by Oracle Enterprise Performance Management System products.<br>• Tablespaces can be shared with other applications.<br>• Create a separate tablespace for indexes to improve performance. This action requires CREATE TABLESPACE system privileges.<br>• Ensure that the `SEGMENT SPACE MANAGEMENT` parameter is set to `AUTO` when you create tablespace, to improve performance. |
| Oracle Hyperion Financial Reporting | Dedicate a tablespace to Financial Reporting. Determine the tablespaces to be used as the default tablespace. and the temporary tablespace for this user. Do not use the SYSTEM tablespace. |
| Oracle Hyperion Financial Management | Set up a temporary tablespace greater than 1GB. |
| Oracle Hyperion Financial Close Management | See the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |
| Oracle Data Relationship Management | • Set the initial tablespace size to 1 GB<br>• Extents to 500 MB<br>• Turn Auto Extend ON<br>See the *Oracle Hyperion Data Relationship Management Installation Guide* |

## Using an Existing Oracle Database Client

For a new installation, if you want to use your existing Oracle Database Client instead of the one installed with EPM System, during EPM System installation clear the selection from Oracle Database Client 32-bit and Oracle Database Client 64-bit under Foundation Services. Then, after installing and configuring Oracle EPM System, perform the following steps:

1. On the machine hosting Foundation Services, update the `TNS_ADMIN` environment variable to point to the location of the existing Oracle Database Client's `tnsnames.ora` file location.

If you are using a separate database for Oracle Hyperion Financial Management, make this change on the server hosting the xfm process.

2. Move TNS entries from *EPM_ORACLE_INSTANCE*/user_projects/config/dbclient/tnsnames.ora (which is populated during database configuration) to the existing tnsnames.ora file. Copy the entire file contents and append to the existing contents of the tnsnames.ora file.

## Replacing the EPM System-Installed Oracle Database Client with A Different Oracle Database Client

If you want to use your existing Oracle Database Client instead of the one installed with EPM System, and you already installed the Oracle Database Client during installation of EPM System, then, after installing and configuring Oracle EPM System, perform the following steps.

1. On the machine hosting Foundation Services, update the TNS_ADMIN environment variable to point to the location of the existing Oracle Database Client's tnsnames.ora file location.
2. Move TNS entries from *EPM_ORACLE_INSTANCE*/user_projects/config/dbclient/tnsnames.ora to the existing tnsnames.ora file. Copy the entire file contents and append to the existing contents of your tnsnames.ora file.
3. Remove the following EPM System embedded Oracle Database Client BIN paths from the PATH environment variable in order to avoid conflicts:

```
<MIDDLEWARE_HOME>\dbclient32\BIN;
<MIDDLEWARE_HOME>\dbclient64\BIN;
```

# Using a Microsoft SQL Server Database

This section includes information about SQL Server database creation, required roles and privileges, and sizing guidelines.

## Creating the RCU Schema for a Non - System Admin User

Use this procedure to create the RCU schema if you are a non System Admin user on SQL Server.

1. Create two databases one each for RCU and EPM (for example, *TESTRCU* and *TESTEPM*).
   - For the RCU database, run these queries:

     ```
     ALTER DATABASE DATABASE_NAME SET READ_COMMITTED_SNAPSHOT ON
     ALTER DATABASE DATABASE_NAME COLLATE LATIN1_GENERAL_CS_AS
     ```

   - For the EPM database, run this query:

     ```
     ALTER DATABASE DATABASE_NAME COLLATE SQL_Latin1_General_CP1_CI_AS
     ```

2. To create a Login User:
   a. Open **Object Explorer** in the **SQL Server Management Studio**.
   b. Click **Security** > **Logins**.

c. On the **General** page, in the **Login name** field, type the name of the user (for example, *EPMLogin*.

d. Select **SQL server authentication**. Type the *password* and re-enter to confirm. Deselect (uncheck) **Enforce password policy**. By default, this option is selected (checked).

e. On the **Server Roles** page, assign the *sysadmin* role to the new login (for example *EPMLogin*). By default, the *public* role is assigned to the new login.

f. On the **User Mapping** page, click on the two database names that you created (for example, *TESTEPM* and *TESTRCU*).

g. Click **Ok**.

#### Updating RCU Database Connection details

Update the RCU database connection details using this as an example:

```
Database type - Microsoft SQL Server
Unicode Support - Select yes or No from the drop-down list
Server Name - Enter the host name, IP address, or complete server name in
host\server format of the server where your database is running..
Port - Enter the port number for your database
Database Name - TESTRCU
Username - EPMLogin
Password - Enter the password for your database user.
```

#### Updating RCU Schema properties

To update the `RCUSchema.properties` file for SQL Server, see Updating RCU Schema Properties

## Microsoft SQL Server Database Creation Requirements

When creating a Microsoft SQL Server database for use as a repository, ensure that you set these options:

- `ALTER DATABASE DATABASE_NAME COLLATE SQL_Latin1_General_CP1_CI_AS`
- Set `READ_COMMITTED_SNAPSHOT = ON` (not required for Oracle Hyperion Financial Management).
- Set `ALLOW_SNAPSHOT_ISOLATION = ON` (not required for Financial Management).
- Select the SQL Server and Windows authentication option when you set the security properties for the database.

Oracle recommends that you add a prefix to the user name that will correspond to the RCU schema prefix used during configuration.

You must also create a database to be used with the Repository Creation Utility (RCU).

For the RCU database, run these queries:

- `ALTER DATABASE DATABASE_NAME SET READ_COMMITTED_SNAPSHOT ON`
- `ALTER DATABASE DATABASE_NAME COLLATE LATIN1_GENERAL_CS_AS`

## Microsoft SQL Server Roles and Privileges

Database users must be assigned ownership of the database, which provides `DB_OWNER` privileges, and `BULK_INSERT`.

## Microsoft SQL Server Sizing Guidelines

The following table describes the Microsoft SQL Server sizing guidelines.

| Product | Sizing Guideline |
|---|---|
| Oracle Hyperion Shared Services | Start with 100 MB, and add more as the number of migrations with Lifecycle Management and the number of audit records increases. |
| Oracle Hyperion Enterprise Performance Management Workspace | The space needed depends on the aggregate size of the objects that you plan to store in the repository. Oracle recommends starting with at least 250 MB, which provides space to expand the EPM Workspace repository without having to increase the data file or tablespace. A shared pool size of 60 MB is used during configuration with EPM System Configurator. |
| Oracle Essbase Administration Services | The space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Oracle Hyperion Planning and Oracle Hyperion Calculation Manager | • 100 MB for applications with 5,000 or fewer total members<br>• 200 MB for applications with 15,000 or fewer total members<br>**Note:** You can adjust the size of the system table database to match the size of the application. |
| Oracle Hyperion Financial Management and Calculation Manager | • 100 MB for applications with 5,000 or fewer total members<br>• 200 MB for applications with 15,000 or fewer total members<br>**Note:** You can adjust the size of the system table database to match the size of the application. |
| Oracle Hyperion Financial Close Management | See the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |
| Oracle Hyperion Tax Governance | See the *Oracle Hyperion Financial Close Management Performance Tuning Guide*, which can be found on Oracle Support by searching for document ID 1575381.1 |
| Oracle Hyperion Tax Provision | • 100 MB for applications with 5,000 or fewer total members<br>• 200 MB for applications with 15,000 or fewer total members<br>**Note:** You can adjust the size of the system table database to match the size of the application. |
| Oracle Hyperion Profitability and Cost Management | Oracle recommends starting with at least 250 MB. |

| Product | Sizing Guideline |
|---|---|
| Oracle Data Relationship Management | • Set the initial file size to 1 GB<br>• Turn on Auto Growth and set to 10% |

# Preparing Java Web Application Servers

Many Oracle Enterprise Performance Management System products require a Java web application server. To identify the products that require a Java web application server, see EPM System Architecture.

## WebLogic Server

- Oracle provides a limited-use license of Oracle WebLogic Server for use with Oracle Enterprise Performance Management System products. Typically, EPM System Installer installs WebLogic Server for you.
- However, if you have an existing WebLogic Server installation and want to use it instead of the WebLogic Server installed by EPM System Installer, note the Middleware home location for the WebLogic Server installation. During installation, you must install EPM System products to this same Middleware home. If EPM System Installer detects an existing WebLogic Server installation in the installation location, it does not install WebLogic Server.

If you are using Oracle Hyperion Planning on a WebLogic Server that is configured with 4 GB max heap size, Oracle recommends that you increase the max heap size to 6 GB to reach the same amount of user scalability.

For additional information about using WebLogic Server in a distributed environment, see Installing EPM System Products in a Distributed Environment.

# Preparing Web Servers

**Related Topics**

- Oracle HTTP Server
- Microsoft Internet Information Services (IIS) (Data Relationship Management Only)

## Oracle HTTP Server

You can choose to install Oracle HTTP Server during the installation of Foundation Services, using the Oracle HTTP Server silent installer. You can also configure Oracle HTTP Server to a shared drive location to simplify configuration in a distributed environment.

To limit the information the web server presents, make the following changes in `httpd.conf`:

**Table 5-1 `httpd.conf` Entries**

| `httpd.conf` Entry | Description |
|---|---|
| `ServerTokens Prod` | Configures the web server to not send any version numbers in the HTTP header. |

**Table 5-1 (Cont.) `httpd.conf` Entries**

| `httpd.conf` Entry | Description |
|---|---|
| `ServerSignature Off` | Configures the web server to hide the server version in the footer of server generated pages. |
| `Header always unset "X-Powered-By"` | Hides "X-Powered-By" and Server headers sent by downstream application servers. |
| `<IfModule headers_module>`<br>`Header edit Set-Cookie ^(.*)$ $1;HttpOnly;Secure`<br>`</IfModule>` | Secures the cookie if SSL is enabled. |

## Microsoft Internet Information Services (IIS) (Data Relationship Management Only)

Oracle Data Relationship Management requires that you install IIS with ASP.NET support enabled before installing Data Relationship Management.

In Windows Server Manager, for **Server Roles** for Web Server (IIS), select **IIS Management Console** under **Management Tools**.

### Verifying the IIS Installation

To verify the IIS installation, ensure that the IIS services are running:

- **IIS Admin Service**
- **World Wide Web Publishing Service**

If you do not see the services for IIS, ensure that IIS is installed.

# Preparing Web Browsers

**Related Topics**

- Browser Settings

## Browser Settings

Ensure that browser preferences and options are enabled:

- For Firefox:
  - Enable JavaScript.
  - Enable cookies. The preferred setting is to allow cookies to be stored on your computer. The minimum requirement is to allow per-session level cookies.
  - Allow pop-up windows.

- For Microsoft Edge - Add the URL for Oracle Hyperion Enterprise Performance Management Workspace to the trusted zone:
  1. Open **Control Panel**, then **Internet Options**, and click the **Security** tab.
  2. Select **Trusted Sites**, and then click **Sites**.
  3. Add the EPM Workspace URL to the list.
  4. Click **OK**

6

# Support Matrix for High Availability and Load Balancing

The tables in this section list the supported clustering methodologies for Oracle Enterprise Performance Management System components by product group and indicate whether high availability and load balancing are supported for each component. The tables also include notes and references to additional information. Use this table to help plan your environment.

Session failover is not supported for EPM System Java web applications.

Documentation resources:

- If you automatically deployed web applications, for information about clustering using EPM System Configurator, see "Clustering Java Web Applications Using EPM System Configurator" in the *Oracle Enterprise Performance Management System Deployment Options Guide*.
- For Oracle Essbase:
  - Active-passive clustering (Windows): "Configuring Active-Passive Essbase Clusters (Windows)" in the *Oracle Enterprise Performance Management System Deployment Options Guide*
  - Active-passive clustering (Linux): "Configuring Active-Passive Essbase Clusters (Linux)" in the *Oracle Enterprise Performance Management System Deployment Options Guide*
  - Active-active clustering: "Configuring Active-Active Essbase Clusters" in the *Oracle Enterprise Performance Management System Deployment Options Guide*
- For Oracle Hyperion Financial Management Server: "Clustering Financial Management Servers" in the *Oracle Enterprise Performance Management System Deployment Options Guide*
- For Oracle Data Relationship Management:
  - "Data Relationship Management Clusters" in the *Oracle Enterprise Performance Management System Deployment Options Guide*
  - "Configuring Load Balancing for Data Relationship Management Web Applications" in the *Oracle Data Relationship Management Installation Guide*
  - "Configuring Host Machines" in the *Oracle Data Relationship Management Installation Guide*

**Table 6-1 Foundation Services Clustering**

| Product/Component | Supported Methodology | High Availability | Load Balancing | Notes |
|---|---|---|---|---|
| Oracle Hyperion Foundation Services Managed Server (includes Oracle Hyperion Shared Services and Oracle Hyperion Enterprise Performance Management Workspace Java Web applications) | WebLogic clustering with EPM System Configurator | Yes | Yes | To configure Oracle Hyperion Enterprise Performance Management System Lifecycle Management for high availability when Shared Services is set up for high availability, you must set up a shared disk. |
| Oracle Hyperion Calculation Manager Java Web Application | WebLogic clustering with EPM System Configurator | Yes | Yes | None |

**Table 6-2 Essbase Clustering**

| Product/Component | Supported Methodology | High Availability | Load Balancing | Notes |
|---|---|---|---|---|
| Essbase Server | • Active-passive clustering with Essbase 21c Failover setup script.<br>• Active-active clustering with Oracle Hyperion Provider Services | Yes | Active-active clusters configured with Provider Services support load-balancing. | • Active-passive clusters support failover with write-back.<br>• Active-active clusters are read-only.<br>The following EPM System products support Essbase active-passive failover:<br>• Oracle Hyperion Financial Data Quality Management, Enterprise Edition<br>• Oracle Hyperion Planning<br>• Oracle Essbase Administration Services |
| Provider Services Java Web Application | WebLogic clustering with EPM System Configurator | Yes | Yes | None |

**Table 6-3 Financial Reporting**

| Product/Component | Supported Methodology | High Availability | Load Balancing |
|---|---|---|---|
| Oracle Hyperion Financial Reporting Java Web Application | WebLogic clustering with EPM System Configurator | Yes | Yes |

**Table 6-4 Financial Performance Management Applications Clustering**

| Product/Component | Supported Methodology | High Availability | Load Balancing |
|---|---|---|---|
| Planning Java Web Application | WebLogic clustering with EPM System Configurator | Yes | Yes |
| Planning RMI Registry | None | No | No |
| Financial Management Server | Clustering with EPM System Configurator | Yes | Yes |
| Financial Management Java Web Application | WebLogic clustering with EPM System Configurator | Yes | Yes |
| Oracle Hyperion Profitability and Cost Management Java Web Application | WebLogic clustering with EPM System Configurator | Yes | Yes |
| Oracle Hyperion Financial Close Management | WebLogic clustering with EPM System Configurator | Yes | Yes |
| Oracle Hyperion Tax Governance | WebLogic clustering with EPM System Configurator | Yes | Yes |
| Oracle Hyperion Tax Provision | WebLogic clustering with EPM System Configurator | Yes | Yes |

**Table 6-5 Data Management Products Clustering**

| Product/Component | Supported Methodology | High Availability | Load Balancing | Notes |
|---|---|---|---|---|
| FDMEE | WebLogic clustering with EPM System Configurator | Yes | Yes | None |
| Data Relationship Management IIS Web Application | Clustering with a web server or third-party load balancer | No | Yes | Multiple Microsoft IIS instances are deployed in an active-active configuration. |
| Data Relationship Management Application Server | Clustering with Data Relationship Management proprietary load balancing | No | Yes | Multiple application servers are deployed in a primary-secondary configuration. |

# Configuring Essbase 21c Failover

Compared to EPM Release 11.2.14 and prior releases, Oracle Essbase 21c is no longer managed by Oracle Process Manager and Notification server (OPMN). Essbase 21c , which is now part of EPM Release 11.2.15, uses a Weblogic managed, lease based failover.

In the previous Essbase 11g (11.1.2.4) release, a maximum of two nodes were allowed per cluster. Starting with Essbase 21c, you can add as many failover nodes as you like to each cluster. See Differences between Essbase 11g and Essbase 21c for more information.

## Essbase Failover Prerequisites

Before configuring the Oracle Essbase Failover:

1. Create a directory in a shared network drive that is accessible to both the nodes (Primary and Secondary) for storing the Essbase `<Applications Directory>`. The mounted path should be the same on both the hosts.
   For example, on Linux, if `u01/essbase_data` is mapped to a Network File System (NFS) storage in the Primary node, then in every failover node, the same path, `/u01/essbase_data`, should be mapped to the same mounted storage.
2. Install an http server or load balancer for managing the nodes. If you don't have an http server or load balancer, you can follow steps to install Oracle HTTP Server (OHS) and configure Oracle HTTP Server.

# Set up an Essbase Failover Environment

### Get Started

1. Follow the steps in Essbase Failover Prerequisistes.
2. Log in to the primary node, open a command prompt or terminal, and ping the secondary (failover) node. Make note of its public IP. For example,

   ```
   ping secondaryhost.example.com
   ```

3. Log in to the secondary (failover) node, open a command prompt or terminal, and ping the primary node. Make note of its public IP. For example,

   ```
   ping primaryhost.example.com
   ```

### Set up the Primary Node

1. Install Oracle Essbase 21c using the EPM 11.2.15 installer. See Installing Essbase Server.
2. Start the EPM configuration tool and configure all the EPM components, including Essbase 21c. Ensure that you note the the EPM schema details so that this can be reused on every failover node while configuring EPM Foundation services. See Configuring Foundation Services.

### Set up the Secondary (Failover) Node

1. Use the EPM 11.2.15 installer to install the Foundation services and Essbase 21c. It should be installed in the same path as the primary node. See Installing Foundation Services.

   > **Note:**
   >
   > The installation path on the primary and secondary nodes should be precisely the same directory path (not on the same system). For example, on both primary and secondary nodes, it may be `<Local Drive>:\Oracle\EPMSystem`. This implies that they can have the same path name, and they are not shared directories.

2. Start the EPM configuration tool and configure ONLY the EPM foundation component. Remove the selection (uncheck) for Essbase. Ensure that you connect to the same EPM schema that is set up on the primary node when configuring the EPM foundation.
3. Follow the steps described in Set up an Essbase Failover Environment to perform the Essbase 21c primary and secondary (failover) configuration.

**Note:**

- The EPM configuration tool's **Configure Essbase** option shouldn't be chosen on any of the failover nodes.
- In the event that the **Configure Essbase** option is inadvertently checked or selected during the configuration of a failover node using the EPM configuration tool, that node will turn into an independent installation that cannot be changed afterwards.
- In the event of an EPM upgrade, Essbase 21c replaces Essbase 11.1.2.4 only after the manual Essbase failover procedures have been carried out.
- In the event that the system had APS before the upgrade, the upgrade would not take place. APS would be available in the Failover node only if it was installed or configured in the primary node.

7

# Downloading Files for Installation

**Related Topics**

- Downloading the Installation Files

## Downloading the Installation Files

To download the installation files:

1. Create a directory to store the Oracle Enterprise Performance Management System files.

   You can download files to a shared drive, or to each machine in your deployment. If you are installing from a network drive, map this drive. This directory is referred to as */download_location* in this procedure.

   > **Tip:**
   >
   > Oracle recommends that you download files to a shared drive.

2. From the Oracle Software Delivery Cloud (http://edelivery.oracle.com/), select the products that you licensed and add them to the cart. All required zip files are included. Select your platform, and download the files into */download_location*.

   For more details, review the "Oracle Enterprise Performance Management System" media pack located in *Oracle Enterprise Performance Management System - Installation Documents and Readmes.zip* file.

   ZIP files include EPM System Installer and installation *assemblies* (product plug-in installation files for EPM System Installer).

3. Unzip the files into */download_location*.

   - Use a zip file extraction program that can handle long path names, such as 7-Zip.
   - If you are prompted that any files or common components already exist, click **Yes** to overwrite the files.
   - Unzip to a directory with no spaces in the name.

   The assemblies are automatically unzipped into an `/assemblies` directory.

   If you downloaded files to a central location, ensure that you unzip the following common files. If you downloaded files to multiple machines in your deployment, on each machine in the deployment, unzip the following common files. Unzip files for each operating system in a separate folder.

   - `EPM System Release 11.2.x.0.0 for platformName (Part 1)`
   - `EPM System Release 11.2.x.0.0 for platformName (Part 2)`
   - `EPM System Release 11.2.x.0.0 (Part 3)`
   - `EPM System Release 11.2.x.0.0 for platformName (Part 4)`

   Note the following information about preparing files for a distributed environment:

- **For Clustering** - Even though you need these four ZIP files on each machine in the environment, install Oracle Hyperion Foundation Services Java web applications on only one machine (unless multiple Java web applications are required for clustering).
- On the machine on which you plan to administer the Oracle WebLogic Server, you must install all Java web applications for all applications you plan to deploy on any machine in the environment. For more information, see Installing EPM System Products in a Distributed Environment.

4. Unzip the installation assemblies into the same directory (*/download_location*).
5. The `/assemblies` directory should include a subdirectory for each product that you want to install on this machine. Ensure that the `/assemblies` directory looks as follows:

```
assemblies/
        product/
            version/
                assembly.dat
```

> **Note:**
>
> `ProductRef.inf` might be in the `/assemblies` directory. It can remain without causing problems.

EPM System Installer can install a product only if the installation assembly files for the product are downloaded and unzipped to the correct location.

See Applying an Update Installation Checklist if you are performing an update (from 11.2.x to 11.2.15).

8

# Installing EPM System Products in a New Deployment

EPM System Installer installs web and services components. Additionally, when you configure Oracle Enterprise Performance Management System products, you configure databases.

Clients are installed with standalone installers.

> **Note:**
>
> - If you are upgrading from Release 11.1.2.4.xxx, see Upgrading EPM System (from 11.1.2.4 to 11.2.8).
> - If you are applying an update from Release 11.2.x, see Applying an Update to EPM System Products.

## Installation Checklist for a New Installation

Oracle Enterprise Performance Management System deployment follows this workflow. Each part of the workflow is described in the sections as noted in the table below.

| Task | Reference |
|---|---|
| 1. Meet the system requirements. | (https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html) |
| 2. Plan the installation and perform prerequisite tasks. | Preparing Your Environment |
| 3. Prepare the installation files. | Downloading Files for Installation. Review the Media Pack Readme on the Oracle Software Delivery Cloud to see which products are required or optional for use with your products. |
| 4. Install EPM System products. | Installing EPM System Products in a New Deployment<br>Ensure that you meet any installation prerequisites that apply to your environment. Installation Prerequisites and Requirements.<br>**Tip:** Before you begin, determine the type of installation you plan to perform:<br>• New installation<br>• Re-install this release<br>• Apply Update<br>For details on each installation type, see Installation Type. |
| 5. Create infrastructure schemas using Repository Creation Utility. | Creating Infrastructure Schemas Using Repository Creation Utility |

| Task | Reference |
| --- | --- |
| 6. Update RCUSchema.properties. | Updating RCU Schema Properties |
| 7. Configure EPM System products using EPM System Configurator. | Configuring EPM System Products in a New Deployment<br>Ensure that you meet any configuration prerequisites that apply to your environment. See Configuration Prerequisites.<br>For distributed environment, see Configure Products in a Distributed Environment.<br>**Note:** If you are enabling SSL in your deployment, see the *Oracle Enterprise Performance Management System Security Configuration Guide* before you configure. |
| 8. Any time you deploy additional products, reconfigure the web Server and then restart it (or simply restart it if you configured Oracle HTTP Server to a shared drive) on each machine hosting Oracle Hyperion Foundation Services.<br>Then, refresh Oracle Hyperion Enterprise Performance Management Workspace on each Foundation Services host machine in your deployment. | Refreshing EPM Workspace. |
| 9. Perform any required manual configuration tasks for your products. | Performing Manual Configuration Tasks in a New Deployment |
| 10. Start EPM System services. | Starting and Stopping EPM System Products |
| 11. Validate the installation using Oracle Hyperion Enterprise Performance Management System Diagnostics and verify deployment. | Validating the Installation and Verifying Deployment |
| 12. Enable external authentication and provision users. | *Oracle Enterprise Performance Management System Security Configuration Guide* |

**Tip:**

During installation, configuration, and validation, keep a list of all user names and passwords that you use to create or modify the system, including the applications with which they are associated and their purpose.

# Installation Prerequisites and Requirements

Note the following installation prerequisites.

- Review the system requirements in the (http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html).
- If you are using Windows 2016, see the post configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.
- You must install and configure all EPM WebLogic instances on the same operating system.
- EPM System Installer installs Oracle WebLogic Server for you. If you have an existing WebLogic Server installation and want to use it instead of the WebLogic Server installed

by EPM System Installer, it must be the version supported by Oracle Enterprise Performance Management System.

> **Note:**
>
> Ensure that you note the Middleware home location for the WebLogic Server installation. During installation, you must install EPM System products to this same Middleware home. If EPM System Installer detects an existing WebLogic Server installation in the installation location, it does not install WebLogic Server.

- Ensure that there is **4** GB of temp space available. You can specify an alternate `/tmp` directory if needed.
- If you are configuring a Essbase Failover environment in Windows, ensure that the common shared Essbase application directory is mounted on the same drive (for example, `Z:`) on the nodes and use it as the application directory in the EPM configuration tool.

> **Note:**
>
> UNC Shared directory path is not supported as Essbase application directory in Windows.

- When updating an existing Essbase environment (Version 11.1.2.4) where EAS Lite is configured independently, the machine where EAS Lite was previously available will no longer be availalable on the same machine after updating to Release 11.2.15. It will be removed from the machine, along with the registry entries related to it. As an alternative, it will be set up on the same system as Essbase Server.
- If the files (for example, "Calc Scripts", "Rule Files") in your 11.2.x Essbase instance have names that contain non-English characters , they might not be converted to Essbase 21c as part of the upgrade to EPM 11.2.15. Ensure that you manually migrate those files.
- Essbase is upgraded to version 21c from 11.1.2.4.x as part of the upgrade to Release 11.2.15. This upgrade needs at least three times the amount of free space in your system that the overall Essbase cube size occupies. This is only utilized for short-term activities, and it will be cleaned up after the upgrade. See Differences Between Essbase 11g and Essbase 21c for more information.
- EPM products using JAPI -Ensure that you take a backup of the file `EPM_ORACLE_HOME\common\EssbaseJavaAPI\11.1.2.0\bin\essbase.properties` and copy it to `EPM_ORACLE_HOME\common\EssbaseJavaAPI-21C\11.1.2.0\bin\essbase.properties` after the upgrade to EPM 11.2.15.
- Install the 32 bit version of on Visual C++ Redistributable Packages for Visual Studio 2013 on the Windows machine where Oracle Hyperion Financial Reporting is installed. (https://www.microsoft.com/en-us/download/details.aspx?id=40784).

  On Linux:

  Make sure libstdc++.so.6 is installed on the machine whereFinancial Reporting is installed.
- On Linux systems, ensure that `ulimit` is `8096` for the ODI patch to apply. You can query for the current ulimit setting with the following command: `ulimit -n`
- See Preparing Your Environment for installation prerequisites.

- For Oracle Hyperion Tax Provision, you must also install all Oracle Hyperion Financial Management components, although they do not need to be installed on the same machine as Tax Provision.
- If you are installing on the same machine on which Oracle Business Intelligence Enterprise Edition or Oracle Business Intelligence Publisher are installed, install into two different Middleware homes. Future patch sets for EPM System and Oracle BI EE will be released at different times, which would create constraints for the upgrades of a merged Fusion Middleware Home.

  For information about Fusion Middleware, see https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html.
- If you are installing and configuring Oracle Hyperion Financial Data Quality Management, Enterprise Edition, Oracle Data Integrator is automatically installed and configured for you. The database for Oracle Data Integrator is in same database as FDMEE and the Oracle Data Integrator agent application is deployed in same JVM as FDMEE.
- FDMEE is required for Account Reconciliation Manager in Oracle Hyperion Financial Close Management. Configure Financial Close Management and Account Reconciliation Manager before configuring FDMEE.
- If you have an existing Oracle SOA Suite installation you plan to use with Financial Close Management, note the Middleware home location for the SOA Suite installation. During installation, you must install EPM System products to this same Middleware home.

## Web Server Installation Prerequisites

For details about System Requirements for Windows and UNIX or Linux operating systems, see:

- System Requirements for UNIX Operating Systems or System Requirements for Linux Operating Systems.
- System Requirements for Windows Operating Systems

> **Note:**
>
> On Windows, ensure that you have a paging file size of at least 512 MB. Do not select the option to automatically manage paging file size.

- For Essbase 21c - System Requirements for Linux.
- Using the Oracle HTTP Server silent installer, EPM System Installer optionally installs Oracle HTTP Server (OHS) while installing Oracle Hyperion Foundation Services.
- EPM System Installer installs an embedded WebLogic HTTP Server as part of Foundation Services that serves as a proxy server if you decide not to install Oracle HTTP Server, for instance in a development environment.
- In a production environment, Oracle recommends that you install Oracle HTTP Server for use with WebLogic.
- If you are installing Oracle HTTP Server, ensure that you meet the installation prerequisites for Oracle HTTP Server. See Preparing to Install and Configure Oracle HTTP Server for more information.

# Installation Sequence

- EPM System Installer enables you to install, configure, and deploy multiple products simultaneously on a machine.
- EPM System Installer installs components in the right order, so you can select as many items as you want to install on the machine.
- When you install a web tier or service tier component, including Oracle Essbase Server, EPM System Installer also installs Oracle WebLogic Server on each machine.

**Note:** EPM System Installer installs Oracle WebLogic Server on each machine where you install a web tier or Service tier component, including Oracle Essbase Server.

# Installing EPM System Products in a Distributed Environment

You typically install Oracle Enterprise Performance Management System products in a distributed environment. The number of computers you need depends on several factors, including:

- The size of the applications
- The number of users
- The frequency of concurrent use by multiple users
- Any requirements your organization has for high availability
- Your organization's security requirements

See EPM System Architecture for sample architecture diagrams to help plan your deployment.

EPM System Installer simplifies the task of installing components in a distributed computing environment. You can install, configure, and validate any components you want on any computer. Once you have installed, configured, and validated the components on that machine, you can repeat the process on another machine.

Note the following information about installing and configuring in a distributed environment.

Installation considerations in a distributed environment:

- In a distributed environment, EPM Oracle home must be the same on each machine. For example, if the path for EPM Oracle home is `/Oracle/Middleware` on the first machine you configure, it must be `/Oracle/Middleware` on all the machines in the deployment.
- Oracle Hyperion Foundation Services is required on only one machine in the deployment, unless multiple Java web application instances are required for clustering, or if you are using Oracle Hyperion Financial Close Management, if Oracle SOA Suite is on a machine separate from EPM System products, you must also install Foundation Services on the SOA machine.
- Optionally, Oracle HTTP Server is installed with Foundation Services.
- On the machine on which you plan to administer the Oracle WebLogic Server, you must install all Java web applications for all applications you plan to deploy on any machine in the environment. (The WebLogic Administration Server is installed and deployed on the Foundation Services machine.)
- On each remote machine in a distributed environment, install the Java web applications you plan to run on that machine and then use EPM System Configurator to deploy the Java web applications automatically, or manually deploy the Java web applications.

Note that EPM System Installer installs WebLogic Server on each machine (for web tier and Service tier components) in a distributed environment.

- If you are installing in multiple environments (for example, Development, Test, and Production), install Foundation Services products in each environment.

# Installing EPM System Products

You can install Oracle Enterprise Performance Management System products using the graphical user interface, or using a silent mode installation response file.

When you install EPM System products, choose which type of installation to perform:

- New installation.
- Re-install this release.
- Apply Update. For information about applying an update, see Applying an Update to EPM System Products.

To install EPM System products:

1. Choose a method:
   - (Windows) Right-click `installTool.cmd` in the root directory to which you extracted the EPM System Installer files and select **Run as administrator**. This command must be run only with Administrator privileges. When you open this window, the title bar reads Administrator: Command Prompt. Commands running within this window are run with Administrator privileges.
   - Create a silent installation response file. See Performing Silent Installations.
   - (Linux) Change to the root directory to which you extracted the EPM System Installer files and enter `./installTool.sh`.

   You can specify an alternate `tmp` directory by using the `-tmp` parameter. For example: `./installTool.cmd -tmp /templocation`.

   EPM System Installer performs some initial checks while launching.

   EPM System Installer launches.

   > **Tip:**
   >
   > The first page of EPM System Installer might open hidden behind other windows if you navigate away from the EPM System Installer window or try to reposition the initial window. Press Alt+Tab to switch to the first page of the wizard.

2. Select a language.

   Throughout EPM System Installer, if a component is not available for installation in the language you selected, it is shaded in color and marked with an asterisk (*).

3. Review and complete each page of EPM System Installer, clicking or selecting **Next** to move to the next page.

> **Tip:**
>
> EPM System Installer starts to display the progress indicator after it has prepared the list of assemblies to install. This might take several minutes, depending on how many products you selected. EPM System Installer displays progress incrementally as each assembly's installation is complete.

The following table provides links where you can find more details about each page of EPM System Installer.

**Table 8-1 EPM System Installer Pages**

| Page | Reference |
|---|---|
| Welcome | Welcome |
| Destination/MiddleWare Home | Destination/Middleware Home |
| Installation Type | Installation Type |
| Product Selection | Product Selection |
| Confirmation | Confirmation |

4. When installation is complete, click or select **Configure** to configure the products using EPM System Configurator, or click or select **Finish** to close EPM System Installer.

# Welcome

Review the prerequisites carefully before you continue the installation. When you have confirmed that your system meets the prerequisites to run EPM System Installer, click or select **Next** to continue the installation.

EPM System Installer checks for the following:

- Whether the computer host name resolves to an IP address. If the machine host name resolves to an IP address, EPM System Installer provides a warning. Oracle recommends that you resolve this issue and provide a host name instead of an IP address before proceeding.
- Whether your system has a supported operating system.
- Whether your system meets minimum memory requirements to run the installation.
- Whether your system meets environment variable prerequisites.
- Whether the inventory is writable.
- Whether the user installing has administrator privileges (Windows only).
- Whether there is 1 GB of temp space available.
- Basic pre-installation checks for Oracle WebLogic Server.

A check mark indicates that your system meets EPM System Installer prerequisites. If any of the prerequisite items do not display a check mark, and you choose to continue, the installation might not succeed.

> **Tip:**
>
> If you are using a `hosts` file to resolve your host name, the host name resolves to the first entry in your `hosts` file. To prevent potential communication problems in a distributed environment, ensure that the first entry in your `hosts` file is the machine's fully qualified domain name so that the fully qualified name is stored in the Oracle Hyperion Shared Services Registry.

## Destination/Middleware Home

Specify the destination for the installation location, or browse to a location and select it, and then click or select **Next**. The default location is `Oracle/Middleware`.

The destination you specify becomes the Middleware home. By default EPM System Installer creates a default EPM Oracle home under the Middleware home. The default location is `Oracle/Middleware/EPMSystem11R1`.

See About Middleware Home, EPM Oracle Home, and EPM Oracle Instance.

Do not use any of the following symbol combinations in the directory that you specify for *EPM_ORACLE_HOME* during installation:

```
/t
```

```
\t
```

```
\b
```

Note the following information about the Middleware home:

- Ensure that this destination has enough disk space to install all the products that you want to install on this machine.

  See Disk Space and RAM for disk space requirements.
- You select a Middleware home for each machine in your environment.

  In a distributed environment, EPM Oracle home must be the same on each machine. For example, if the path for EPM Oracle home is `/Oracle/Middleware` on the first machine you configure, it must be `/Oracle/Middleware` on all the machines in the deployment.
- If you are reinstalling Oracle Enterprise Performance Management System products on this machine or adding products to your installation, the existing location for the Middleware home is listed as the default installation destination, and you cannot change it.
- The destination path cannot contain spaces; for example, `<Local Drive>:\Program Files` is not acceptable (unless you use short path notation).
- The first character must be an alphanumeric character.

> **Note:**
>
> If you previously used EPM System Installer, and you saved the installation selections to a file, you can load the selections to prepopulate the installation destination and the products to install. Doing so is useful if you are installing the same products on multiple machines. Click **Load**, browse to the saved selections file, and click **Open**.

## Installation Type

Select an installation type, and then click or select **Next**. If an installation type is not applicable on this machine, the option is unavailable.

You cannot combine installation types in one session. For example, you cannot perform a new installation of one product at the same time you perform a reinstallation of another product.

**Note:** Priort to starting any of the following installation types, stop all the services. For more information, see Starting and Stopping EPM System Products

Choose from the following installation types:

- **New installation**
  - Choose this option if you are installing an Oracle Enterprise Performance Management System product for the first time on this computer.
  - Choose this option if you want to install additional components that you did not initially install.
- **Re-install this release**

  Choose this option if you already installed this version of this EPM System product and want to reinstall it, for example if you need to repair an existing installation.
- **Apply Update**

  Choose this option to apply an update from Release 11.2.x to Release 11.2.15. See Applying an Update to EPM System Products.

If you are upgrading from Release 11.1.2.4 to Release 11.2.x, see Upgrading EPM System (from 11.1.2.4 to 11.2.8).

## Product Selection

Select the products and product components to install, and then click or select **Next**.

The following table describes the options for product selection.

**Table 8-2 Product Selection Options**

| Action | Details |
|---|---|
| Select the products components to install. | You can expand and collapse the entries to select or clear specific options for each product and component. |

**Table 8-2 (Cont.) Product Selection Options**

| Action | Details |
|---|---|
| Uncheck all / Check all | Select **Check all** to select all the products, or **Uncheck all** to clear all the products.<br>This option is not available if you are applying an update. |
| Hide/Show unavailable products. | To see only products for which installation assemblies are available, select **Hide Unavailable Product Components**.<br>To see all products, select **Show Unavailable Product Components**. |

Generally, you can install any combination of components on any computer. Note the following about product selection:

- Products are available for installation only if the assemblies are downloaded to the correct location and the selected component is supported on the platform on which you are installing. If a product is unavailable on the Product Selection page, ensure that the assemblies are in the correct location.
- Select a product component to see information and status about it in the lower portion of the screen. If you are installing on an unsupported platform, a warning is displayed.
- The Oracle Hyperion Shared Services and Oracle Hyperion Enterprise Performance Management Workspace Java web applications are installed when you install the Oracle Hyperion Foundation Services Java web applications.
- If you selected **New Installation** and you have already installed this release of a product, the product is unavailable in the Product Selection page.

  When **Apply Update** is the installation type, EPM System Installer applies the update to all installed products. You can't apply the update to only some products in your deployment. On the Product Selection page, you can't make any selections or deselections.
- In some cases, a component is selected, but is unavailable (you can't clear it), because it is required for another selected component.

## Confirmation

Review the summary of products to be installed. If necessary, click or select **Back** and make corrections. Click or select **Next** to begin the installation.

EPM System Installer warns you if there is insufficient disk space.

The **Install Type** column notes one of the following:

- **Install** if this is a new installation.
- **Re-install** if this is a reinstallation of the same release of this Oracle Enterprise Performance Management System product.

To save your installation selections to perform the same installation on another computer, or to use as the basis for a response file for silent installation, see Saving Installation Selections.

## Saving Installation Selections

If you plan to install this same set of components on another computer, you can save the installation selections in a file. You can then load the selections on another computer during installation to prepopulate EPM System Installer pages for **Destination** and **Product Selection**.

To save the installation selections, click or select **Save**, browse to a location, specify a file name, and click or select **Save**.

This procedure creates an editable file that can be used as the basis for a response file for silent installation. For information about using a response file, see Loading Saved Selections.

## Progress

To cancel the installation, click or select **Cancel**.

EPM System Installer starts to display the progress indicator after it has prepared the list of assemblies to install. This might take several minutes, depending on how many products you selected. EPM System Installer displays progress incrementally as each assembly's installation is complete.

When you click or select **Cancel**, EPM System Installer waits until the current assembly completes installing and then stops. It does not undo installations for assemblies that were already installed. Use EPM System Uninstaller to remove assemblies that were installed. See the *Oracle Enterprise Performance Management System Deployment Options Guide* for information about uninstalling.

> **Note:**
>
> "Creating Oracle Inventory" sets up infrastructure for future service fixes.

## Summary

Review the installation summary, and then click or select **Configure** to launch EPM System Configurator or click or select **Finish** to close EPM System Installer.

EPM System Installer indicates the success or failure of the installation. If any part of the installation failed, EPM System Installer notes which assembly failed to install. Check the log files for more information about the errors. You can find the log files in `/diagnostics/logs/install`. There is a log file for each assembly, named *`product`*`-install.log`; for example, `hss-install.log`, and a log file for installation, `installTool-install-`*`DateTime`*`.log`.

# Performing Silent Installations

Silent installations automate the installation process so that you can install Oracle Enterprise Performance Management System products on multiple computers without manually specifying installation settings on each machine.

To enable silent installation, record your installation settings in a response file. You can then run a silent installation from the command line, using the installation options that were saved in the response file.

To record installation settings and run a silent installation:

1. Navigate to the directory that contains EPM System Installer.
2. From a command line, run a command:

   Windows:

   ```
   installTool.cmd -record filename
   ```

   Linux:

   ```
   installTool.sh -record filename
   ```

   where *filename* includes an absolute path or file name for the response file.

   The file is saved in XML format, but you do not have to save the file with a `.xml` extension.

   EPM System Installer launches.
3. Proceed through EPM System Installer, specifying the options that you want to record.

   Installation options are recorded in the response file. You can modify the response file later to change installation options.

   You are now ready to run the installation in silent mode.
4. Copy the response file to the machine on which you want to run the installation. You can also copy the file to a network drive that is accessible from the machines on which you want to install.
5. From the command line, enter a command:

   Windows:

   ```
   installtool.cmd -silent filename
   ```

   Linux:

   ```
   installtool.sh -silent filename
   ```

   The installation runs in the background.

Silent response files are not compatible between earlier releases of EPM System and Release 11.2. If you created silent response files for use with any earlier release of EPM System products, you must re-create them for use with EPM System Release 11.2.

## Loading Saved Selections

You can also record installation settings from within EPM System Installer.

To record installation settings, during installation, on the Installation Confirmation page, click or select **Save**, browse to a location, specify a file name, and click or select **Save**. The file is saved in the same format as for silent installations.

To play back the installation using the same installation destination and product component selections, start EPM System Installer, and on the Destination page, click or select **Load**, browse to the saved selections file, and click or select **Open**.

## Modifying Response Files

After you create a response file, you can modify it to customize the installation options for certain machines. For example, you might create a master silent file for all products, and then for each machine, change the location of the Middleware home and keep only the product components that you want to install on this machine.

To modify a response file:

1. Open the response file in any text editor. The file is in XML format.
2. Edit the file using the following options.
   - `<HyperionHome>`—Location of the Middleware home.
   - `<SelectedProducts>`—Product components to install to specific tiers. Make changes in `<Product name>`, `<ProductComponent name>`, `<InstallTier>`, and `<Component>`.
   - `<Product name>`—The name of the product. Enclose product names in quotes, as they are XML attributes.
   - `<ProductComponent name>`—The component of the product. Enclose component names in quotes, because they are XML attributes.
   - `<InstallTier>`—The installation tier for the component installation (Client, Service, WebApplication).
   - <Component> — The services to install.
3. Save the file in XML format.

# Installing and Configuring Oracle SOA Suite 12c for Financial Close Management and Tax Governance

Follow these steps to install and configure the Oracle SOA Suite 12c.

## Roadmap for Installing and Configuring Oracle SOA Suite 12c

The following tables provide an overview of the installation and configuration process for Oracle SOA Suite 12c.

> **Note:**
>
> - In a distributed shared environment, ensure that you add **HFMWeb** cluster as the target for the **wsm-pm** deployment. You must restart the **HFMWeb0** managed server for the changes to take effect. After the server is up and running, login to financial close manager and generate web services for all integration types. This lists all the deployed SysInt* composites in the SOA server.
> - Oracle SOA Suite 12c does not support:
>   - SQL Server
>   - FDMEE/Data Management (DM) integrations

| Task | Reference |
|---|---|
| Install and Configure Release 11.2.15. | Installing EPM System Productsand Configuring EPM System Products. In addition, for a distributed environment, ensure that you review Installing EPM System Products in a Distributed Environment and Configuring EPM System Products in a Distributed Environment. |
| Install Oracle SOA Suite 12c | Installing Oracle SOA Suite 12c |
| Run the Repository Creation Utility (RCU) to create the SOA DB Schemas. | Using Repository Creation Utility (RCU) to create SOA Schemas |
| Configure SOA Suite [Configure existing domain with SOA Suite] | Configuring Oracle SOA Suite Domain |
| Start WebLogic Administration Server and then the SOA managed server. | Deploy to SOA and Starting the Servers |
| Configure KSS Keystore | Configure KSS Keystore |
| Run the Deploy script | See *Step 10* in Configure KSS Keystore |
| Perform manual configuration tasks for Financial Close Management or Tax Governance. | Deploy to Application Server |
| Validate and Verify the installation and deployment. | Verifying the deployment |

# Installing Oracle SOA Suite 12c

The following procedure provides an overview of the Oracle SOA Suite installation procedure. For more information about this procedure, see *Oracle Fusion Middleware Installation Guide for Oracle SOA Suite 12c*.

To install Oracle SOA Suite:

1. Ensure that you stop all the EPM System services and Java services.
2. Ensure that you meet all the prerequisites and system requirements described in *Oracle Fusion Middleware Installation Guide for Oracle SOA Suite 12c*.

> **Note:**
>
> SOA Suite requires Oracle WebLogic Server, which is installed with a default installation of Oracle Enterprise Performance Management System.

3. Ensure that you have installed the Oracle Fusion Middleware Infrastructure 12c (12.2.1.4.0). For instructions, see Installing the Infrastructure Software in *Installing and Configuring the Oracle Fusion Middleware Infrastructure* guide.
4. Ensure that you run the following commands:

- `Oracle\Middleware\OPatch>opatch.bat version`. The sample output is as follows:

```
OPatch Version: 13.9.4.2.7
OPatch succeeded
```

- `Oracle\Middleware\OPatch>opatch.bat lspatches`. The sample output is as follows:

```
32698246;WLS PATCH SET UPDATE 12.2.1.4.210330
32647448;Bug 31544353 - ADR FOR WEBLOGIC SERVER 12.2.1.4.0 JULY CPU
2020 for WebLogic Server SPB
122148;Bundle patch for Oracle Coherence Version 12.2.1.4.8
30967620;One-off
26626168;One-off
32458315;ADF BUNDLE PATCH 12.2.1.4.210203
29790738;One-off
```

5. Download Oracle SOA Suite from Oracle SOA Suite 12c or from Patchset 30188289. If you have already installed EPM System products, install to the same Middleware home, for example: `Oracle/Middleware_Home`.
6. Start the installation program by running the `java` executable from the JDK directory. For example:

```
<Local Drive>:\home\Oracle\Java\jdk1.8.0_211\bin\java -jar
fmw_12.2.1.4.0_soa.jar
```

The following table lists the order in which installer screens appear. If you need additional help with an installation screen, click **Help**.

**Table 8-3 Oracle SOA Suite 12c Installation Screens**

| Screen | Description |
|---|---|
| Welcome | Review the information to make sure that you have met all the prerequisites, then click **Next**. |
| Auto Updates | Select **Skip Auto Updates**, then click **Next**. |
| Installation Location | Specify your Oracle home directory location. For example `<Local Drive>:\Oracle\Middleware`. The Oracle home directory must include Oracle Fusion Middleware Infrastructure, along with other EPM products that have been installed. Click View to ensure that you are installing Oracle SOA Suite 12c in the correct directory. |
| Installation Type | Select SOA Suite, then click **Next**. |
| Prerequisite Checks | This screen verifies that your system meets the minimum necessary requirements. To view the list of tasks that gets verified, select **View Successful Tasks**. To view log details, select **View Log**. |

**Table 8-3 (Cont.) Oracle SOA Suite 12c Installation Screens**

| Screen | Description |
|---|---|
| Installation Summary | This screen shows the installation summary. Verify the summary and click **Install** to start the installation. |
| Installation Progress | This screen shows the installation progress.When the progress bar reaches 100% complete, click **Next**. |
| Installation Complete | This screen displays the Installation Location and the Feature Sets that are installed. Review this information and click **Finish** to close the installer. |

7. When the installation is complete, you must configure the domain. See Configuring Oracle SOA Suite Domain.

# Configuring Oracle SOA Suite Domain

After you have installed Oracle SOA Suite, you must now configure the domain. The configuration steps presented here assume that you have completed the installation steps covered in Installing Oracle SOA Suite 12c.

## Using Repository Creation Utility (RCU) to create SOA Schemas

The Repository Creation Utility (RCU) is used to create schemas to support Oracle Enterprise Performance Management System Java web applications.. This process requires sys DBA credentials.

To create schemas using the Repository Creation Utility:

> **Note:**
>
> Before you start the RCU:
>
> - Verify that a certified JDK already exists on your system by running java -version from the command line. For Oracle SOA Suite 12c (12.2.1.4.0), the certified JDK is1.8.0_211 and later. See About JDK Requirements for an Oracle Middleware Installation for more details.
> - Ensure that the `JAVA_HOME` environment variable is set to the location of the certified JDK. For example:
>   - (UNIX) `setenv JAVA_HOME /home/Oracle/Java/jdk1.8.0_211`
>   - (Windows) `set JAVA_HOME=<Local Drive>:\home\Oracle\Java\jdk1.8.0_211`

1. Navigate to `Middleware home/oracle_common/bin/`.
2. Launch `rcu.bat`.

   For Linux, run `./rcu`
3. The **Welcome** page is the first screen that appears when you start the RCU. On the **Welcome** page, click **Next**.

4. Use the Create Repository screen to select a method to create and load component schemas into the database. On the **Create Repository** page, select **System Load and Product Load**. This procedure assumes that you have SYSDBA privileges.
5. Click **Next**.
6. On the **Database Connection Details** page , specify a user with DBA or SYSDBA privileges, such as `sys`, provide the fully qualified host name, service name, and then click **Next** to proceed.

   For example:

   ```
   Database Type: Oracle Database
   Host Name: examplehost.exampledomain.com
   Port: 1521
   Service Name: Orcl.exampledomain.com
   User Name: sys
   Password: ******
   Role: SYSDBA
   ```

7. On the **Select Components** page, perform these tasks, and then click **Next**:
   - Select **Select existing prefix** and then select **SOA Suite** schema. This will automatically select **SOA Infrastructure** along with the following schemas as dependencies.
     - Common Infrastructure services
     - Oracle Platform Security Services
     - User Messaging Service
     - Audit Services
     - Audit Services Append
     - Audit Services Viewer
     - Metadata Saervices
     - Weblogic Services
   - Make a note of the **Schema Owner** names for all the components because you need them to configure Oracle Web Services Manager.
8. On the **Schema Passwords** page, you must select **Use same passwords for all schemas**. Enter a password, make a note of it, and then click **Next**.

   The maximum password length is 16 characters.

   The password can contain alphabets, numbers, and the following special characters: $, #, _. Password should not start with a number or special character.
9. On the **Custom Variables** page, specify the custom variables for the **SOA Infrastructure schema**. For the Oracle SOA Suite, accept both default values for **Database Profile** (Small) and **Healthcare Integration** (No).
10. On the **Map Tablespaces** page, click **Next**, and then click **OK** to create tablespaces.
11. On the **Summary** page, review the selections, and then click **Create**.
12. On the **Completion Summary** page, click **Close**.

# Configuring the Domain

Ensure that you have installed Oracle SOA Suite as described in Installing Oracle SOA Suite 12c. Before you configure Oracle Hyperion Financial Close Management, you must configure and start SOA Suite.

The following procedure provides an overview of the SOA Suite configuration procedure. For more information about this procedure, see the "Configuring Oracle SOA Suite Domain" chapter of the *Oracle® Fusion Middleware Installation and Configuration Guide for Oracle SOA Suite 12c* guide.

To configure SOA Suite:

1. From the WebLogic Administration Server machine, run the Oracle Fusion Middleware Configuration Wizard to configure a WebLogic domain, and choose the products that you want to configure in that domain. To start the Configuration Wizard, change to the following directory:

   ```
   MIDDLEWARE_HOME\oracle_common\common\bin
   ```

2. Enter the following command:

   - `config.sh` (UNIX)
   - `config.cmd` (Windows)

   Note that Oracle Enterprise Performance Management System and SOA Suite must be deployed to the same domain. The choice you make for the domain depends on your deployment scenario:

   - In a new deployment, where you have not yet configured EPM System products, you must create a new WebLogic domain.
   - In an existing deployment, where you have already configured EPM System products and now want to extend the deployment to include Financial Close Management and SOA Suite, you must extend the existing WebLogic domain created during EPM System deployment.
     The following table lists the order in which configuration wizard screens appear. If you need additional help with a configuration screen, click **Help**.

**Table 8-4 Oracle SOA Suite 12c Configuration Screens**

| Screen | Description |
|---|---|
| Configuration Type | Select **Update an existing domain**. Selecting this option assumes that you alreadu have a WebLogic domain. In the Domain Location field, specify your Domain home directory. Click **Browse** to navigate to the directory in which the domain is located. For example, `<Local Drive>:\Oracle\Middleware\user_projects\domains\EPMSystem` and click **Next**. |
| Templates | On the **Templates** screen, make sure to select **Oracle SOA Suite Reference Configuration [soa]** template from the list of available templates. **Oracle WSM Policy Manager** is selected by default. |

**Table 8-4 (Cont.) Oracle SOA Suite 12c Configuration Screens**

| Screen | Description |
|---|---|
| High Availability Options | On the **High Availability Options** screen, ensure that **Enable Automatic Service Migration** is left unchecked. Select **Default Persistent Store** under **JTA Transaction Log Persistence**. Select **JMS File Store** under **JMS Service Persistence** and then, click **Next**. |
| JDBC Data Sources | On the **JDBC Data Sources** screen, click **Next** |
| JDBC Data Sources Test | On the **JDBC Data Sources Test** screen, test the data source connections that you configured and then, click **Next**. |
| Database Configuration Type | On the **Database Configuration type** screen, select **Manual Configuration** and then, click **Next**. |
| Component Datasources | On the **Component DataSources** screen, you must manually fill in parameters for your schema using the example below:<br><br>`Vendor: Oracle`<br>`Driver: Oracle Driver (Thin) for Service Connections`<br>`DBMS/Service: orcl.exampledomain.com`<br>`Host Name: examplehost.exampledomain.com`<br>`Port: 1521`<br>`Schema Owner: sys`<br>`Schema Password: *****`<br><br>Use the schema username and password that was specified on the Schema Passwords screen of the Repository Creation Utility (RCU).<br>Select each component schema and update all the Schema Owner fields which are not updated with an RCU prefix. Ensure that you do not update the ODI related schemas. Click **Next**. |
| JDBC Test | On the JDBC Test screen, test the data source connections. A green check mark in the **Status** column indicates a successful test. If you encounter any issues, see the error message in the **Connection Result Log** section of the screen, fix the problem, then try to test the connection again. |
| Keystore | On the **Keystore** screen, from the down-down list of **Store Key Name**, select the store or key that you want to configure. Click **Next**. |

**Table 8-4 (Cont.) Oracle SOA Suite 12c Configuration Screens**

| Screen | Description |
|---|---|
| Advanced Configuration | On the **Advanced Configuration** screen, leave all the options unchecked and then, click **Next**. |
| Configuration Summary | The **Configuration Summary** screen provides a summary of the configuration settings. Click **Update** to accept the options and to start extending the domain. |
| Configuration Progress | This screen shows the progress of the domain creation. When the progress bar reaches 100% complete, click **Next**. |
| End Of Configuration | The messages `Oracle Weblogic Server Configuration Succeeded` and `Existing Domain EPMSystem Update Succeeded` appears, and the domain location is provided along with the Administration Server URL to use for the domain. |

3. When the configuration is complete, ensure that the `DemoIdentity.jks` Keystore file exists in . `Middleware_Home/user_projects/domains/EPMSystem/security` folder. If the keystore file does not exist, you must regenerate the file using the steps covered in Doc ID 2357811.1.

# Deploy to SOA

The deployment steps presented here assume that you have completed the steps covered in Configuring the Domain.

1. Starting the Servers
2. Configure KSS Keystore
3. Deploy to Application Server
4. Verify the Deployment

## Starting the Servers

Before starting the servers, ensure that you have completed all steps covered in:

- Installing Oracle SOA Suite 12c
- Configuring Oracle SOA Suite Domain

Start WebLogic Administration Server and the Oracle SOA Suite Managed Server.

To start the WebLogic Administration Server, run the following command:

```
MIDDLEWARE_HOME/user_projects/domains/domainName/startWebLogic.cmd
```

To start the SOA Managed Server, run the following command:

```
MIDDLEWARE_HOME/user_projects/domains/domainName/bin/startManagedWebLogic.cmd
soa_server1
```

After you start the servers, ensure that you Configure KSS Keysore.

## Configure KSS Keystore

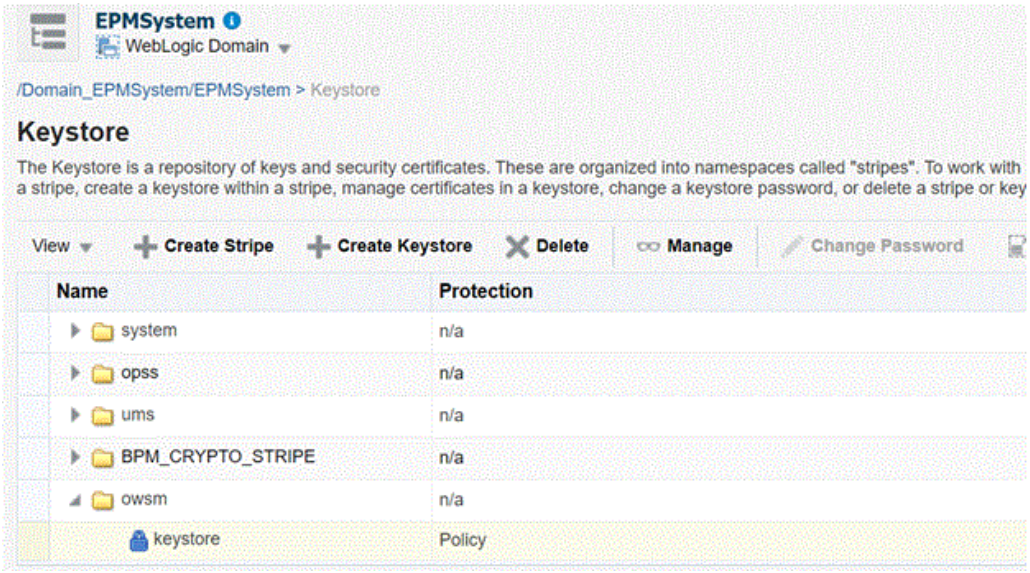
1. Sign in to Oracle Enterprise Manager Fusion Middleware Control 12c:

   ```
   http://administration_server_host:administration_server_port/em
   ```

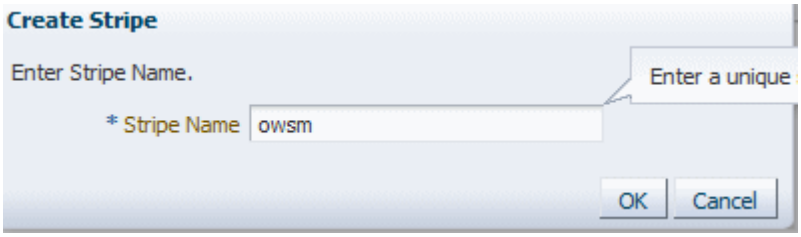
   The default Administration Server port number is 7001.

2. Create a stripe and name it `owsm`

   a. In the content pane, select **WebLogic Domain**, then **Security**, and then **Keystore**.



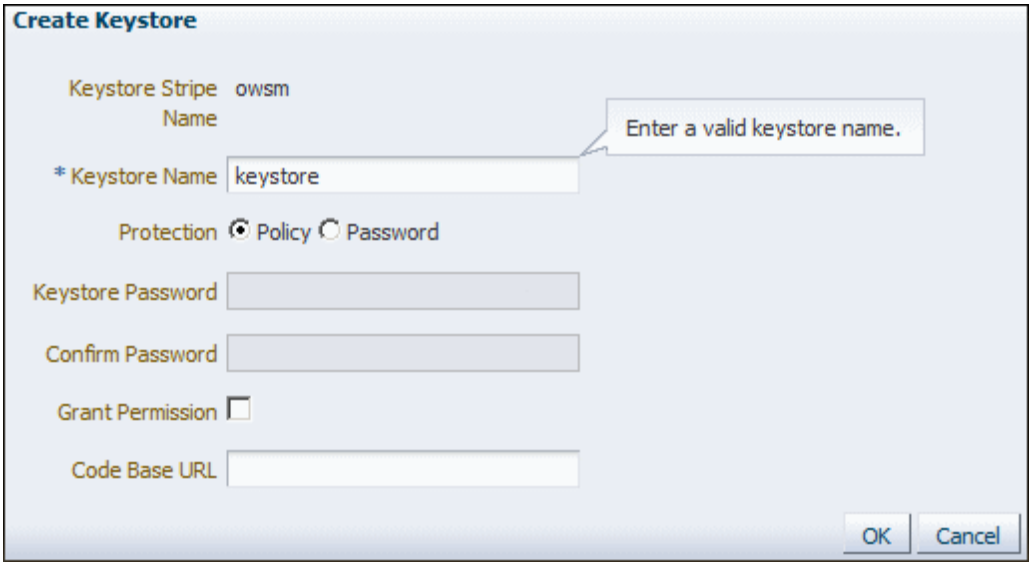

   b. Click **Create Stripe**.




   c. Enter `owsm` and then, click **OK**.

3. Create a keystore named `keystore` in the `owsm` stripe.

   a. Select the `owsm` stripe you created and click Create Keystore.




b. Name this keystore `keystore`.

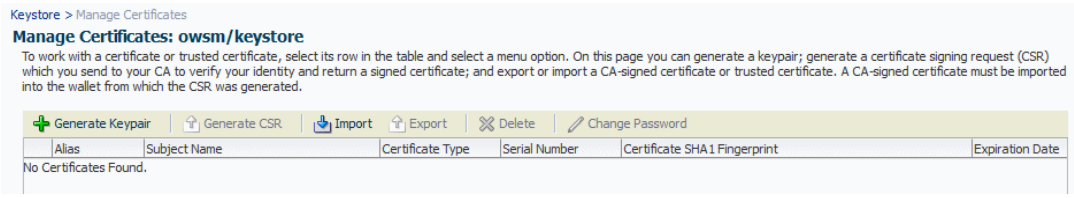
c. Set the protection type to **Policy**. (Password protected KSS keystores are not supported in this release.)

d. Clear the **Grant Permission** check box.

e. Do not specify a code base URL.

f. Click **OK**.

4. Select the keystore you just created and click **Manage**.

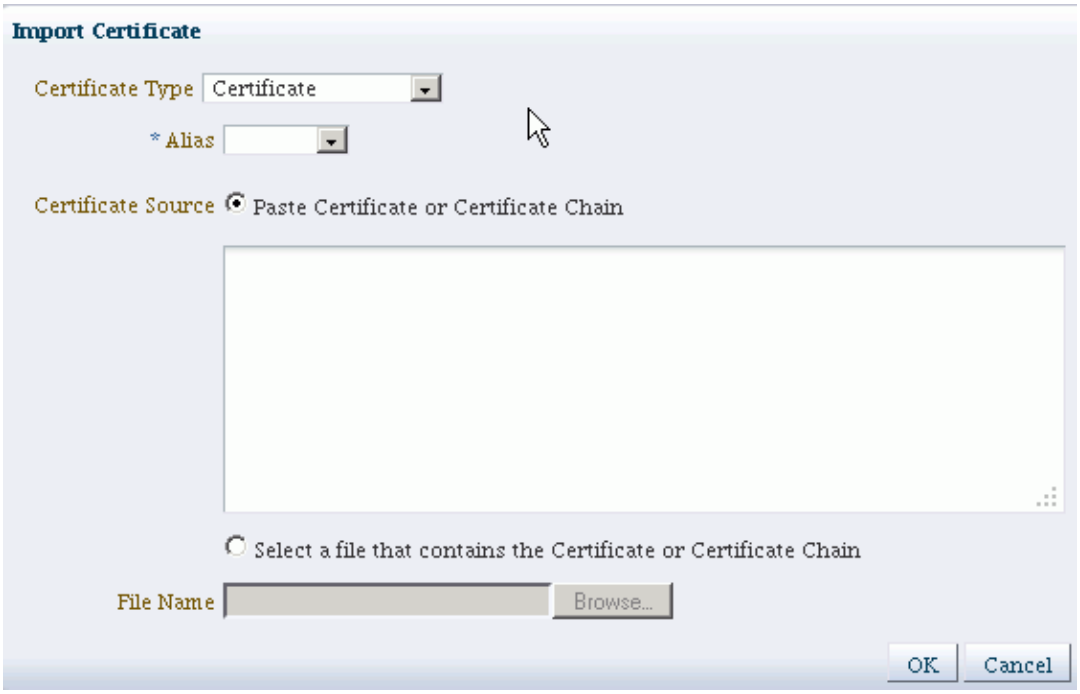



a. Click **Generate Keypair** to generate a private/public key pair.


b. Specify an alias such as `orakey` for the key pair and enter the other information as appropriate.

c. Click **OK**.

5. On the **Manage Ceritifcates** page, select `orakey` and click **Import** to import the trusted certificate. The Import Certificate dialog appears:




a. Select the certificate type, either Certificate or Trusted Certificate, from the drop-down.

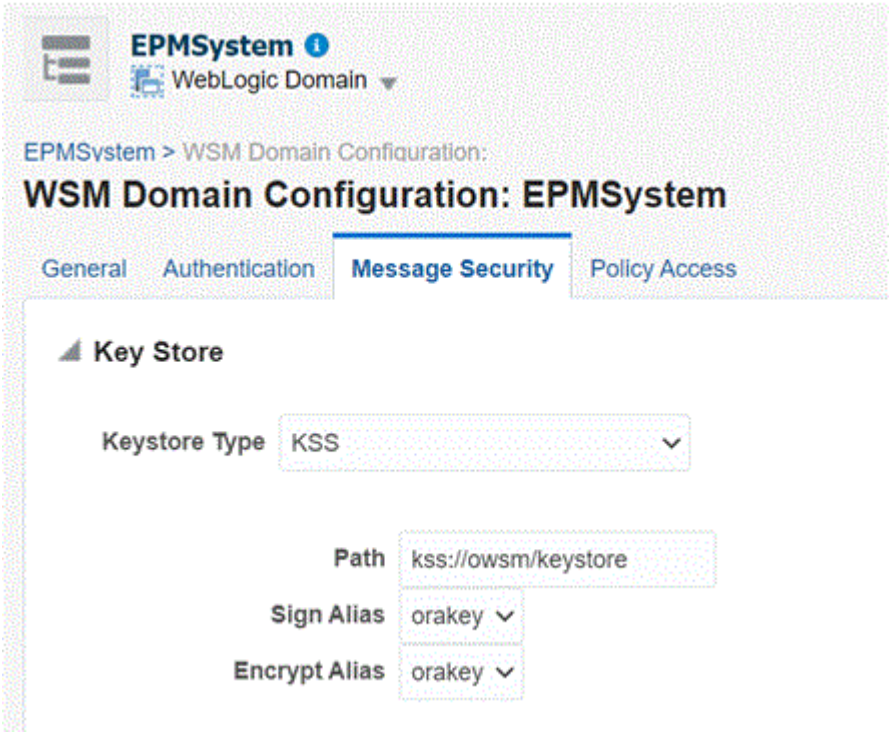
b. Select the alias from the drop-down.

c. Specify the certificate source. If using the Paste option, copy and paste the certificate directly into the text box. If using the **File Name** option, click **Browse** to select the file from the operating system.

d. Click **OK**. The imported certificate or trusted certificate appears in the list of certificates.

6. In the content pane, navigate to **WebLogic Domain**, then **Web Services**, then **WSM Domain Configuration**. If you encounter any error, ensure that you have started the SOA managed server (soa_Server1).

   a. Click **Manage Security** and enter the following details:




b. Click **Apply.**

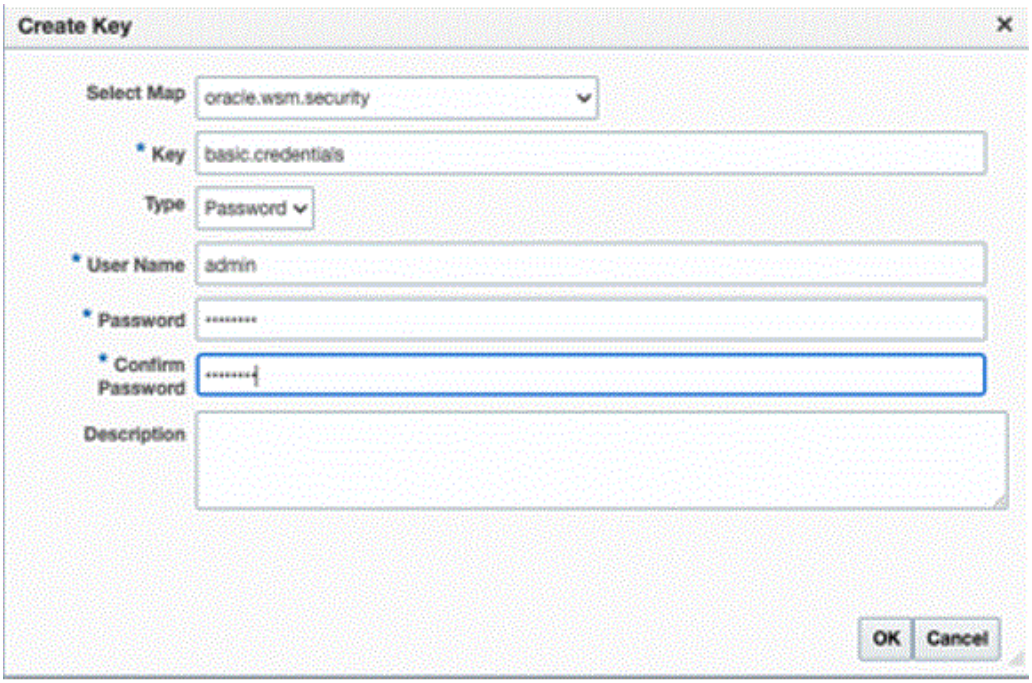
7. Additionally ensure if credential store `oracle.wsm.security` map is created by default or not. If the credential store `oracle.wsm.security` map was not created, you must create it before you can use the credential store to store user credentials.

   a. In the content pane, navigate to **WebLogic Domain**, then **Security**, then **Credentials**.

   b. Click **Create Map**.

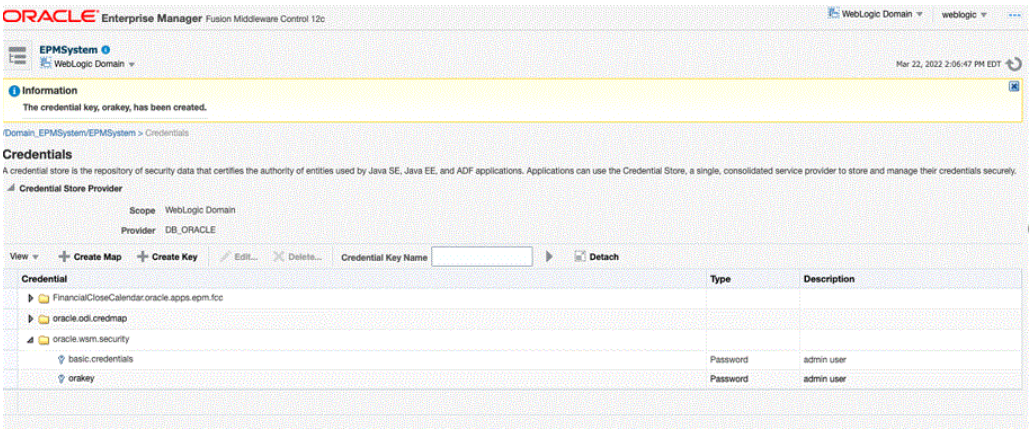
   c. Specify the **Map Name** as `oracle.wsm.security` and then, click **OK**.

   d. Click **Create Key**. Enter the information as appropriate. For example:




e. Create another key and name it as `orakey`. Click **OK**.

f. The following dialog appears:




8. In the content pane, click **Weblogic**, and then click **logout**.
9. Stop the servers:
   a. To stop the WebLogic Administration Server:

      ```
      MIDDLEWARE_HOME/user_projects/domains/domainName/stopWebLogic.cmd
      ```

   b. To stop the SOA Managed Server

      ```
      MIDDLEWARE_HOME/user_projects/domains/domainName/stopWebLogic.cmd
      soa_server1
      ```

10. After configuring the KSS Keystore, you must:

a. Start WebLogic Admin Server and the SOA managed server.

b. Run `DeployToSOA.cmd` command. For example:

```
<Local
Drive>:\Oracle\Middleware\EPMSystem11R1\common\config\11.1.2.0>deployToS
oa.cmd <Local Drive>:\Oracle\Middleware <Local
Drive>:\Oracle\Middleware\user_projects\epmsystem1
```

## Deploy to Application Server

1. Launch EPM System Configurator:
   a. Run `configtool.bat` for FCM and Tax Management from `MIDDLEWARE_HOME\EPMSystem11R1\common\config\version number`.
   b. Ensure that **Deploy to Application Server** is checked under **Financial Close Management** and **Tax Management**.
   c. Click **Next**.
   d. Ensure that all rows are checked under **.EAR/WAR** column and then, click **Next.**
2. On the **Confirmation** screen, review the summary of the configuration tasks that will be executed,and then click **Next**.
3. When the deployment process is complete, the **Summary** screen is displayed. Verify that all the tasks are completed successfully, and then click **Finish**.
4. Restart the WebLogic and SOA servers. See Starting the Servers.
5. Start EPM System: From the **Start** menu, select **Oracle EPM System**, and then **Start EPM System**.
6. Start Oracle HTTP Server. See Starting and Stopping Oracle HTTP Server.
7. After the deployment to application server, you can now verify and validate the installation and deployment. See Verify Deployment.

> **Note:**
>
> Ensure that the JDBC data source `jdbc/financialclose_datasource` is also targeted to SOA server.

## Verify the Deployment

To verify the deployment:

1. From the **Start** menu, select **Programs**, then **Oracle EPM System**, then **instanceName**, then **Workspace**, and then **Workspace URL**. Or, using a web browser, open `http://Hostname.Example.Com:WebServerListenPortworkspace/`
2. Navigate to:
   a. **Applications**, then **Financial Close Management**, and then **Close Manager**. Click **Help**, and then click **Close Manager Validator**. Ensure that the status of each validation item has a green check mark in the Validator page.

b. **Applications**, then **Tax Management**, then **Governance** and then **Tax Operations**. Click **Help**, and then click **Tax Operations validator** . Ensure that the status of each validation item has a green check mark in the Validator page.

c. **Applications**, then **Financial Close Management**, and then **Supplemental Data Manager**. Supplemental Data Manager (SDM) should now launch without any error.

# Installing EPM System Clients

**Related Topics**

- Client Installation Prerequisites
- Downloading and Extracting Client Installers
- Installing EPM System Clients
- Installing EPM System Clients from EPM Workspace
- Installing EPM System Clients From the Command Line
- Installing and Updating Smart View Extensions
- Downloading Essbase 21c Clients

## Client Installation Prerequisites

Review these prerequisites before installing Oracle Enterprise Performance Management System clients:

- Install Microsoft Excel and Oracle Smart View for Office on the same machine, with access to Oracle Hyperion Planning.
- **Smart View**: Smart View must be installed on a machine that already has Microsoft Office 32-bit or Office 64-bit and .NET Framework installed. Install Microsoft Excel with the Visual Basic option.

## Downloading and Extracting Client Installers

You use client installers when Installing EPM System Clients and when Installing EPM System Clients from EPM Workspace.

Make sure you've downloaded files needed for your product. See Downloading Files for Installation.

To extract the Oracle Enterprise Performance Management System client installers:

1. On your local computer, create *client installer folder*; for example, `EPM_Clients_unzipped`.
2. Extract files from `ClientInstallers-<versionNumber>.zip` into the folder you created.

   Extracting the contents of the downloaded file creates subfolders in *client installer folder* that contain the installer files, as follows:

   - `Planning/PlanningSVExtension.msi`
   - `CloseMgrSupplementalDataSVExt.exe`
   - `TaxOpsTaxSupplementalSVExt.exe`

# Installing EPM System Clients

The following Oracle Enterprise Performance Management System clients have their own Windows installers:

- Essbase Oracle Essbase Administration Services Console
- Oracle Essbase Client

  The Essbase Client installer is Windows only.

  On Linux, Essbase Client is installed with Essbase Server.
- Planning Admin Extension for Oracle Smart View for Office
- Smart View Extension for Close and Supplemental Data Management
- Smart View Extension for Tax Operations and Tax Supplemental Schedules
- Predictive Planning (module of Oracle Hyperion Planning). To ensure that users install the latest version of Predictive Planning, the Predictive Planning installer is available only on Oracle Technology Network (from https://www.oracle.com/middleware/technologies/epm-predictive-planning-downloads.html).

> **Note:**
>
> Smart View. To ensure that users install the latest version of Smart View, the Smart View installer is available only on Oracle Technology Network.

If you have installed a client in a previous release using a Windows installer, you do not need to uninstall the earlier release of the client.

> **Note:**
>
> If you are using terminal services to install clients, switch your session to installation mode (`change user /install`) before running any EPM System client installer.

To install EPM System clients using the Installer:

1. From *client installer folder*, open the subfolder for the client installer and then double-click the client installer file name.
   See Downloading and Extracting Client Installers for the subfolders and installer names.
2. Proceed through the installation wizard, and click **Finish** when the installation is complete.

You can also install some clients from Oracle Hyperion Enterprise Performance Management Workspace. See Installing EPM System Clients from EPM Workspace.

# Installing EPM System Clients from EPM Workspace

If you have installed and configured Oracle Hyperion Enterprise Performance Management Workspace, you can download and launch installers for the following clients from EPM Workspace:

- Oracle Smart View for Office. By default, when you install Smart View from EPM Workspace, the **Install** link launches Oracle Technology Network (OTN), where you download and install the latest version of Smart View. This ensures that users have the most recent version of Smart View for installation.
- Oracle Hyperion Financial Reporting Utilities
- Oracle Hyperion Tax Provision Metadata Accelerator
- Planning Admin Extension

To install Oracle Enterprise Performance Management System clients from EPM Workspace:

1. Copy the client installer from *client installer folder* and place it in a folder on the EPM Workspace server.

   See Downloading and Extracting Client Installers for information on *client installer folder*.

   See Table 1 for information on where to place client installers in EPM Workspace.

   This step is not necessary for Smart View.

**Table 8-5 Where to Place Client Installers in EPM Workspace**

| EPM System Client | Client Installer | Location in EPM Workspace |
|---|---|---|
| Financial Reporting Utilities | `FinancialReportingStudio/FinancialReportingUtils.zip` | |
| Tax Provision Metadata Accelerator | `HTPAcceleratorInstaller.svext` | *`EPM_ORACLE_HOME`*`/common/epmstatic/wspace/taxprov/HTPAcceleratorInstaller.svext` |
| Planning Admin Extension | `Planning/PlanningSVExtensions.msi` | *`EPM_ORACLE_HOME`*`/common/epmstatic/wspace/PlanningSmartviewExtension/PlanningSVExtension.msi` |

2. Launch EPM Workspace and log in:

   `http://epm.`*`mycompany`*`.com:19000/workspace/index.jsp`

3. Select **Tools**, then **Install**, and then select the product to install. Follow the onscreen prompts.

   For Smart View, unless you changed the location for installation, the Oracle Technology Network page for Smart View launches:

   a. From Oracle Technology Network, select **Oracle Smart View for Office**, click **Download latest Version**, accept the license agreement, click **Download Now**, and then click **Save** to save the file locally.

   b. Unzip the file, launch **SmartView.exe**, and then follow the onscreen prompts.

# Installing EPM System Clients From the Command Line

You can run an Oracle Enterprise Performance Management System client installer from the command line using the following parameters:

**Table 8-6 Command Line Options for Client Installations**

| Option | Usage |
|---|---|
| `/v"`*command line options*`"` | Specifies command line options to be passed to the client installer. |
| `/s` | Runs the client installer as a silent installer. |
| `/qn` | Makes the installation non-interactive. |
| `INSTALLDIR=` | Specifies the installation directory.<br>**Note:** If the `EPM_ORACLE_HOME` environment variable is defined, the client installation ignores the `INSTALLDIR=` value and install the clients in *EPM_ORACLE_HOME*: |
| `l*v` *log file path and name* | Logs installation information in the specified file. |

## Performing Silent Client Installations

Administrators can enable silent installations. When silent installations are enabled, you can include the silent installation command in scripts to automate the process, so that you do not need to specify settings each time you perform an installation.

To perform a silent installation of any Oracle Enterprise Performance Management System client, use this command:

*installer file name* `/s /v"/qn INSTALLDIR=`*installation directory* `/l*v` *log file path and name*`"`

> **Note:**
>
> For installer file names, see Downloading and Extracting Client Installers.

# Installing and Updating Smart View Extensions

Oracle Smart View for Office supports provider extensions for the following Oracle Enterprise Performance Management System products:

- Oracle Hyperion Financial Reporting
- The Planning Admin extension for Oracle Hyperion Planning
- Smart View Extension for Close and Supplemental Data Management
- Smart View Extension for Tax Operations and Tax Supplemental Schedules
- Tax Provision Metadata Accelerator Smart View Extension

If you are an administrator, see "Administering Extension Installations and Updates" in the *Oracle Smart View for Office Installation and Configuration Guide* for information about administering extension installations and updates.

# Downloading Essbase 21c Clients

Oracle Essbase 21c Client Installer, which includes the MaxL client, Runtime Client (RTC), Java APIs (JAPI), and complete client libraries, can be downloaded from:

```
https://<your-essbase-host>:<your Essbase SSL port>/essbase/jet/
```

> **Note:**
>
> The Essbase web interface enables you to manage applications, users, groups, and Essbase artifacts. It includes a rich outline editor, scripting editors, a data analysis interface where you can save grid layouts, and a load rules editor with built-in data previews. A centralized Jobs interface lets you initiate requests, and monitor active and recent requests. Cube Designer and Smart View, as well as utilities for migration, automation, and administration, are available to download from the Console. See Using Oracle Essbase and Getting Started with Oracle Essbase for more details.

9

# Configuring EPM System Products in a New Deployment

**Related Topics**

- About EPM System Configurator
- Configuration Prerequisites
- Configuration Sequence
- Configuring Products in a Distributed Environment
- Configuring Products in an SSL-Enabled Environment
- Product Configuration Task Summary
- Configuring EPM System Products
- EPM System Configurator Task Reference
- Performing Silent Configurations
- What Happens During Configuration
- Troubleshooting Configuration

## About EPM System Configurator

EPM System Configurator is installed with the first Oracle Enterprise Performance Management System product installed on a computer and is used to configure all products installed on the computer. Use EPM System Configurator on each computer on which EPM System products are installed. (EPM System clients do not require configuration.)

Use the configuration worksheets throughout this chapter to plan your configuration and to document the configuration steps for your company if required for disaster recovery.

## Configuration Prerequisites

Configuration prerequisite notes:

- If you are using Windows 2016, see the post configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.
- Ensure that host names resolve properly for each machine in the deployment. See Ensuring that Host Names Resolve.
- Use the Repository Creation Utility (RCU) to create schemas to support Oracle Enterprise Performance Management System Java web applications, and then modify RCU schema properties. See Creating Infrastructure Schemas Using Repository Creation Utility and Updating RCU Schema Properties. You must run RCU and modify RCU schema properties on each machine in your environment.

- If you plan to deploy EPM System products in an SSL-enabled environment, review the *Oracle Enterprise Performance Management System Security Configuration Guide* before you install and configure.

  The SSL implementation you choose affects the options you choose during configuration. Optionally, you can deploy non SSL and reconfigure to use SSL. See SSL-Enabling EPM System Components in *Oracle Enterprise Performance Management System Security Configuration Guide*.

- When you are deploying on a machine other than the machine hosting Oracle Hyperion Foundation Services, ensure that Oracle WebLogic Server Administration Server is running on the Foundation Services host machine (*FNDHOST1*): On the Foundation Services host machine, start WebLogic Server Administration Server by running the following command:

  ```
  <middleware_home>/user_projects/domains/EPMSystem/bin/startWeblogic.cmd
  ```

- If you want to deploy Java web applications to a single managed server, you must be using WebLogic Server and have a 64-bit operating system.
- For database configuration tasks, ensure that the database is running.
- If you plan to deploy EPM System products in an SSL-enabled environment, the SSL implementation that you choose affects the options that you select during configuration. Optionally, you can deploy non SSL and reconfigure to use SSL. See the *Oracle Enterprise Performance Management System Security Configuration Guide*.

## Ensuring that Host Names Resolve

Before configuring, ensure that the host name resolves properly for each machine in the deployment. Oracle Enterprise Performance Management System uses Java's canonical host name resolution for resolving host names. To validate host names as resolved by Java, EPM System provides a utility (`epmsys_hostname.bat`).

To ensure that host names resolve:

1. Set the *JAVA_HOME* variable. From a command prompt, enter `set JAVA_HOME=pathToJAVA`. For example, for the default location that EPM System Installer uses for Java, enter the following command: `set JAVA_HOME=<Local Drive>:\oracle\middleware\JDK`.
2. Unzip `epmsys_hostname.zip`, in *`EPM_ORACLE_HOME`*`/common/config/11.1.2.0`.
3. From a command prompt, change to the directory to which you unzipped the utility, and then enter the following command:

   ```
   epmsys_hostname.bat hostName
   ```

4. Review the results in the command line.

   For example:

   ```
   InetAddress details of host hostNameAddress is xx.xxx.xxx.xxxName is
   hostNameCanonical Name is hostName.mycompany.com
   ```

5. If you see the error `Unable to determine the host details`, or if a canonical name is returned as an IP address instead of a host name, to resolve the host name, create a local hosts file and add an entry for this server.

# Creating Infrastructure Schemas Using Repository Creation Utility

The Repository Creation Utility (RCU) is used to create schemas to support Oracle Enterprise Performance Management System Java web applications.. This process requires sys DBA credentials.

If you don't have sys DBA credentials, see *Creating the RCU schema on Oracle Database Without SYSDBA Rights* section under the Configuration Tips and Solutions topic in the *Oracle Enterprise Performance Management System Installation and Configuration Troubleshooting Guide*. This is applicable only for EPM Schema creation.

> **Note:**
>
> For Essbase Schema creation, ensure that you have sys DBA credentials. See Configure Essbase on Linux topic for more information. For additional details on administrator credentials, see *Step 4f* of the *Run Configuration Tool* section.

Make sure you've set up database schemas for your database. See Preparing a Database.

> **Note:**
>
> If you are using SQL Server, you must create an additional database for use with RCU. See Using a Microsoft SQL Server Database.
>
> In a distributed environment for SQL Server, each RCU must be created on a separate schema. You need need a separate schema for each RCU and each schema needs to be mapped to a different login user.

To create schemas using the Repository Creation Utility:

1. Navigate to `Middleware home/oracle_common/bin/`.
2. Launch `rcu.bat`.

   For Linux, run `./rcu`
3. The **Welcome** page is the first screen that appears when you start the RCU. On the **Welcome** page, click **Next**.
4. Use the Create Repository screen to select a method to create and load component schemas into the database. On the **Create Repository** page, select **System Load and Product Load**. This procedure assumes that you have SYSDBA privileges.
5. Click **Next**.

   If you have previously created a repository and configured EPM System, and you want to perform a fresh configuration , drop the repository, and then create a new repository.
6. On the **Database Connection Details** page , specify a user with DBA or SYSDBA privileges, such as `sys`, provide the fully qualified host name, service name, and then click **Next**.
7. On the **Select Components** page, perform these tasks, and then click **Next**:
   - Select **Create new prefix** and provide a prefix.

Oracle recommends that you use the same prefix for the EPM System database user and for the RCU database.

> **Note:**
>
> In a distributed environment, create a new, different prefix for each machine in the environment.

- Expand **AS Common Schemas** and select all the options.
  - Clear the selection (Uncheck) for **Oracle Data Integrator** if **Oracle Data Integrator** is selected.
  - Clear the selection (Uncheck) for **Oracle Essbase** if **Oracle Essbase** is selected.
- Make a note of the **Schema Owner** names for all the components because you need them to configure Oracle Web Services Manager.

8. On the **Schema Passwords** page, you must select **Use same passwords for all schemas**. Enter a password, make a note of it, and then click **Next**.

   The maximum password length is 16 characters.

   The password can contain alphabets, numbers, and the following special characters: $, #, _. Password should not start with a number or special character.
9. On the **Map Tablespaces** page, click **Next**, and then click **OK** to create tablespaces.
10. On the **Summary** page, review the selections, and then click **Create**.
11. On the **Completion Summary** page, click **Close**.

For additional information on the Repository Creation Utility, see the *Oracle® Fusion Middleware Repository Creation Utility User's Guide 12c Release (12.2.1.4).*

# Updating RCU Schema Properties

Update RCU schema properties on each machine in your environment.

1. Navigate to *EPM_ORACLE_HOME*`/common/config/11.1.2.0/RCUSchema.properties`.
2. Provide the required database details. If you are using Oracle database, provide the database details for the RCU database you created.

   These properties are used during configuration.

   - sysDBAUser—The sysdba user for RCU
   - sysDBAPassword
     a. The sysdba password for RCU.
     b. The maximum password length is 16 characters.
   - rcuSchemaPassword
     a. RCU schema password created while running RCU.
     b. The maximum password length is 16 characters.
     a. The password can contain alphabets, numbers, and the following special characters: $, #, _
     b. Password should not start with a number or special character.

- schemaPrefix—The schema prefix used to create RCU. (Make sure it is the same as the Oracle Hyperion Shared Services Registry database user)

  > **Note:**
  >
  > In a distributed environment, for each machine, specify the prefix you created for that machine.

- dbURL—For example: `dbURL=jdbc:oracle:thin:@hostname:port:sid`

The passwords are encrypted.

Enter these properties once before configuring. You don't need to make subsequent updates if you reconfigure or redeploy.

Notes for `dbURL`:

- Format for Oracle Database with SID:

  `dbURL=jdbc:oracle:thin:@hostName:port:SID`

- Format for Oracle Database with service name:

  `dbURL=jdbc:oracle:thin:@hostName:port/serviceName`

  or

  `dbURL=jdbc:oracle:thin:@//hostName:port/serviceName`

- Format for Microsoft SQL Server, with SID, using the name for database you already created:

  `dbURL=jdbc:weblogic:sqlserver://hostName:port;databaseName=databaseName`

  For Microsoft SQL Server, update the `RCUschema.properties` file, using the following as an example:

```
sysDBAUser= EPMLogin
sysDBAPassword=<The sysdba password for RCU>
schemaPrefix=<The schema prefix used to create RCU>
rcuSchemaPassword=<you are prompted for schema password in the script>
dburl=jdbc:weblogic:sqlserver://<hostname>:<port=1433>;databaseName=TESTRCU
```

### Updating RCU Schema Properties For Essbase only

1. schemaPrefixEssbase — The schema prefix used to create RCU for Essbase. Ensure that the prefix value is distinct and not the same as the schemaPrefix value.

   > **Note:**
   >
   > - Schema prefix name must be a minimum of one character in length and cannot exceed 12 alphanumeric characters (0-9, a-z, or A-Z) in length (not including the underscore character). Prefixes should not start with a number. No whitespace or special characters are allowed.
   > - The EPM Configurator will create the Essbase RCU schema based on the value entered in the schemaPrefixEssbase.

2. dbURLEssbase — The database URL for Essbase. For example:`hostname:port:sid`

Notes for `dbURLEssbase`:

- Format for SSL

  `dbURLEssbase=serviceName?TNS_ADMIN=PATH_TO_WALLET_FILES`

  > **Note:**
  >
  > TNS_ADMIN must point to a folder containing `sqlnet.ora`, `tnsnames.ora`, a `wallet`, and `ojdbc.properties` files.

- Format for Oracle:

  `dbURLEssbase=hostName:port:SID`

- Format for Oracle Database with service name:

  `dbURLEssbase=hostName:port/servicename`

  or

  `dbURLEssbase==(DESCRIPTION=(ADDRESS=(host=host_name)(protocol=protocol_name)(port=port_number))(CONNECT_DATA=(SERVICE_NAME=service_name)))`

- Format for Oracle Database with PDB:

  `dbURLEssbase=hostName:port/pdb`

- Format for Microsoft SQL Server using the name for database you already created:

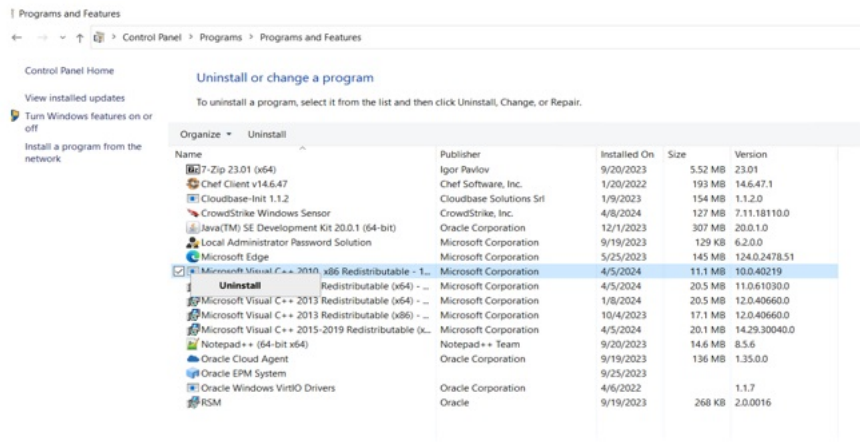
  `dbURLEssbase=hostName:port:databaseName`

See Applying an Update Installation Checklist if you are performing an update (from 11.2.x to 11.2.15).

# Optional: Removing Visual C++ 2010 (Windows Only)

Removing Microsoft Visual C++ 2010 (`x64` and `x86`) from your environment.

1. Stop all the services. For information about starting services, see Starting and Stopping EPM System Products.
2. Open **Control Panel**, then **Programs** and then **Programs and Features**. Look for `Microsoft Visual C++ 2010 x64 Redistributable` and `Microsoft Visual C++ 2010 x86 Redistributable` under **Uninstall or Change a Program** and then click **Uninstall**. Ensure that you do not uninstall any other versions of Microsoft Visual C++.




3. Restart your machine.
4. Open command prompt and run `configtool.bat` from the folowing location and redeploy all the web applications:

   `EPM_ORACLE_HOME/common/config/11.1.2.0`

> **Note:**
>
> Ensure that **Configure Application Server** under HFM (Hyperion Financial Management) is selected.

5. Verify if both `Microsoft Visual C++ x64 Redistributable` and `Microsoft Visual C++ x86 Redistributable` is removed from **Programs** under the **Control Panel**.
6. Start all the services. For information about starting services, see Starting and Stopping EPM System Products.

# Configuration Sequence

Oracle Hyperion Foundation Services must be installed and configured for other products to configure successfully. In general, for a new deployment, Oracle recommends that for each machine, you configure all Oracle Enterprise Performance Management System products at the same time for the products installed on the machine. By default, EPM System Configurator preselects all products for you.

Configuration sequence notes:

- Configure Foundation Services first. Foundation Services must be installed and configured for other products to configure successfully. Then, for each machine in the deployment, configure all EPM System products at one time for the products installed on the machine.
- Configure the web server last. (Select the Foundation Services **Configure Web Server** task.) Then, restart the web server and refresh Oracle Hyperion Enterprise Performance Management Workspace. If you configured Oracle HTTP Server to a shared drive, you can simply restart the web server and refresh EPM Workspace; you do not have to reconfigure the web server.
- Complete the configuration on each machine and close EPM System Configurator before launching EPM System Configurator on another machine.

- When you configure in a distributed environment, you configure the Oracle Hyperion Shared Services database on every machine. On the first machine, you are setting up the Oracle Hyperion Shared Services Registry. For configurations on subsequent machines, choose **Connect to a previously configured Shared Services database**, which lets the machine know the location of the Shared Services Registry.
- If you deploy any additional products, reconfigure the web server and then restart it (or simply restart it if you configured Oracle HTTP Server to a shared drive) on each machine hosting Foundation Services.

  Then, refresh EPM Workspace on each Foundation Services host machine in your deployment.
- You must perform the **Configure Database** task at the same time as or before you perform the **Deploy to Application Server** task.
- Configure Oracle Hyperion Financial Close Management and Account Reconciliation Manager before configuring Oracle Hyperion Financial Data Quality Management, Enterprise Edition. If Financial Close Management is configured after FDMEE, you must manually configure the ARM Data Server. See Set up the Data Server Based on the Enterprise Resource Planning (ERP) Source System. Perform these steps for ARM_DATA_SERVER.
- Automatic web server configuration with EPM System Configurator is supported only for the web server installed by EPM System Installer (Oracle HTTP Server or the proxy web Server).
- After you have completed configuration, perform any required manual configuration tasks required for your product.

For information about clustering or scaling EPM System, see the *Oracle Enterprise Performance Management System Deployment Options Guide*.

Configure Oracle Data Relationship Management after you have completed all the configuration tasks using EPM System Configurator: See the *Oracle Data Relationship Management Installation Guide*.

# Configuring Products in a Distributed Environment

Ensure that you meet installation and configuration requirements in a distributed environment. See Installing EPM System Products in a Distributed Environment. For information about clustering and high availability, see the *Oracle Enterprise Performance Management System Deployment Options Guide*.

Before you configure, ensure that you have run RCU and updated RCU schema properties on each machine in your environment.

Configuration considerations in a distributed environment:

- You must configure Oracle Hyperion Foundation Services first. Foundation Services must be installed and configured for other products to configure successfully. Configure the web server last.
- Create a new EPM Oracle instance on each machine.
- If you are deploying Java web applications on a machine other than the WebLogic Administration Server machine, WebLogic Administration Server must be running.
- Deploy all Oracle Enterprise Performance Management System products to a single WebLogic domain.

- During configuration with EPM System Configurator, the web server machine needs connectivity to the machine hosting the Oracle Hyperion Shared Services Registry.
- If you are using more than one web server in a deployment for load balancing and failover:
  - Configure the web server on every machine on which you want to run the web server.
  - Use a load balancer (hardware or software) to route traffic to the servers, and the logical web address for the Java web application cluster should be the load balancer. If you have only one web server, the logical web address for the Java web application cluster can be the web server.
- On the **Configure Common Settings** page of EPM System Configurator, for **LCM Export Import Location**, specify a shared file system path defined using UNC syntax that is accessible from all the servers in the deployment. This enables data migration across distributed environments.

  This is necessary when configuring EPM System for high availability, where multiple instances of services are running, and for using Oracle Hyperion Enterprise Performance Management System Lifecycle Management in a distributed environment.

  You must also point to the same location for Oracle Essbase Server (Linux) **Full path to application location** (ARBORPATH). For example, `\\SharedHost\SharedLocation\data\Essbase`
- **Profitability and Cost Management**: The common settings in EPM System Configurator must be configured to specify a shared directory path using the UNC (Universal Naming Conventon) syntax when Oracle Hyperion Profitability and Cost Management is installed and configured on a different physical server than the one with **LCM Export Import Location** (shared artifact path).
- Optionally, you can configure Oracle HTTP Server to a shared drive to simplify the configuration process.
- **Oracle Hyperion Financial Management:** If you are using Financial Management in a distributed environment, configure the LCM Export Import folder with Read/Write access for all the Financial Management Application Servers in the environment. you must select the **Configure Database** task for Financial Management on every machine hosting the Financial Management Application Server.

  If you are configuring an additional instance of Financial Management, when you are prompted whether to drop and re-create the tables or reuse the existing database, select **Reuse the existing database**.
- **Oracle Hyperion Financial Reporting:** For the linked reports to work, configure Financial Reporting so that the logical address of the Financial Reporting component is same as web server port (for example, 19000).

# Configuring Products in an SSL-Enabled Environment

If you are configuring Oracle Enterprise Performance Management System products for SSL, the configuration sequence and selections that you make during configuration depend on the type of SSL implementation you choose. Optionally, you can deploy non SSL and reconfigure to use SSL. See the *Oracle Enterprise Performance Management System Security Configuration Guide*.

> **Note:**
>
> Oracle Essbase supports only one-way SSL using self-signed certificates by default. Using default certificates is recommended for use only in a test environment. Oracle recommends that you use certificates from well-known third party CAs in a production environment. See the *Oracle Enterprise Performance Management System Security Configuration Guide* for details.

# Product Configuration Task Summary

Configuration notes:

- EPM System Configurator performs pre-configuration tasks and registers products with Oracle Hyperion Shared Services during configuration. You need not select these tasks; they are automatically performed when needed.
- Oracle Hyperion Shared Services Registry database configuration appears once on each machine that you configure.
- Clients do not require configuration and are not included in these tables.

The following table summarizes the configuration options available for Oracle Hyperion Foundation Services products.

**Table 9-1 Foundation Services Configuration Task Summary**

| Component | Configure Database | Deploy to Application Server | Product-specific Configuration Tasks |
|---|---|---|---|
| Foundation Services | X | X<br>This selection deploys Shared Services and the Oracle Hyperion Enterprise Performance Management Workspace Java web applications. | • Configure Common Settings<br>• Configure Web Server<br>• Configure Logical Address for Web Applications (Optional)<br>• Scale out single managed server on this machine |
| Oracle Hyperion Calculation Manager | X | X | N/A |

The following table summarizes the configuration options available for Oracle Essbase products.

**Table 9-2 Essbase Configuration Task Summary**

| Component | Configure Database | Deploy to Application Server | Product-specific Configuration Tasks |
|---|---|---|---|
| Oracle Hyperion Provider Services | N/A | X | N/A |
| Oracle Essbase Administration Services | X | X | N/A |
| Essbase | N/A | N/A | Configure Essbase Server |

The following table summarizes the configuration options available for Oracle Hyperion Financial Reporting.

**Table 9-3 Financial Reporting Configuration Task Summary**

| Component | Configure Database | Deploy to Application Server | Product-specific Configuration Tasks |
|---|---|---|---|
| Financial Reporting | X | X | Configure Financial Reporting RMI Ports |

The following table summarizes the configuration options available for Financial Performance Management Applications products.

**Table 9-4 Financial Performance Management Applications Product Configuration Task Summary**

| Component | Configure Database | Deploy to Application Server | Product-specific Configuration Tasks |
|---|---|---|---|
| Oracle Hyperion Financial Close Management | X | X | X<br>Deploy to SOA |
| Tax Management | X | X | X<br>Deploy to SOA (Required only for Oracle Hyperion Tax Governance) |
| Oracle Hyperion Financial Management | X | X | • Configure Application Server<br>• Configure Application Cluster |
| Oracle Hyperion Planning | X | X | Configure RMI Server |
| Oracle Hyperion Profitability and Cost Management | X | X | N/A |

The following table summarizes the configuration options available for Data Management products.

**Table 9-5 Data Management Product Configuration Task Summary**

| Component | Configure Database | Deploy to Application Server | Product-specific Configuration Tasks |
|---|---|---|---|
| Oracle Hyperion Financial Data Quality Management, Enterprise Edition | X | X | N/A |

# Configuring EPM System Products

Run EPM System Configurator on each machine hosting the products to configure or reconfigure. Before configuring, ensure that you've run RCU to create infrastructure schemas. See Creating Infrastructure Schemas Using Repository Creation Utility.

For a list of characters supported during configuration with EPM System Configurator, see Characters Supported for Installation and Configuration.

> **Note:**
>
> On Windows machines, run EPM System Installer and EPM System Configurator as an administrator. Install and configure as an administrator for all Oracle Enterprise Performance Management System products.

> **Note:**
>
> On Linux machines, do not use the `root` user to install and configure. Install and configure as the same user for all EPM System products. On Linux machines, for all Oracle products, the user that is installing must be part of the same group; the group must have write permission to the central inventory (oraInventory).

To configure EPM System products:

1. Choose a method to launch EPM System Configurator:
   - On the last page of EPM System Installer, click or select **Configure**.
   - From the **Start** menu, select **Oracle EPM System**, and then **EPM System Configurator (all instances)**.
   - Change to *EPM_ORACLE_HOME*`/common/config/`*version_number* and then launch `configtool.bat`. (.sh)
   - For silent configurations, see Performing Silent Configurations.

   > **Tip:**
   >
   > If you launch EPM System Configurator from *EPM_ORACLE_INSTANCE*, EPM System Configurator configures the existing EPM Oracle instance and does not display the "Configure Oracle Instance" page.

   EPM System Configurator performs initial checks, checking for the following:
   - Environment variables are set
   - `.oracle.products` is present
   - All required `.jars` are present
   - Windows system32 is in the `PATH`
   - There is a valid EPM Oracle home
2. Review and complete each page of EPM System Configurator, clicking or selecting **Next** to move to the next page.

   The following table provides links where you can find more details about each page of EPM System Configurator.

| Page | Reference |
|---|---|
| EPM Oracle Instance | Configure EPM Oracle Instance |

| Page | Reference |
|---|---|
| Task selection | Task Selection |
| Set Up Oracle Hyperion Shared Services and Registry Database Connection | Ensure that the database is started and that you have created a database.<br>If you have not already created the database, see Preparing a Database.<br>Enter the information as described in Set Up Shared Services and Registry Database Connection. |
| Configure database | Ensure that the database is started and that you have created a database.<br>If you have not already created the database, see Preparing a Database.<br>Enter the information as described in Configure Database. |
| Application server deployment | Enter the information as described in Deploy to Application Server: Oracle WebLogic. |
| Product-specific configuration tasks | For detailed procedures to configure each product, see the sections:<br>• Foundation Configuration Tasks<br>• Essbase Configuration Tasks<br>• Financial Reporting Configuration Tasks<br>• Planning Configuration Tasks<br>• Financial Management Configuration Tasks<br>• Financial Close Management Configuration Tasks |

3. (Optional) To save the configuration selections in a response file for silent configuration, click or select **Save**, browse to a location, specify a file name, and click or select **Save**.

   This procedure creates an editable file that can be used as a response file for silent configuration. See Performing Silent Configurations.

4. Confirm the configuration tasks to complete, and then click or select **Next**.

   EPM System Configurator displays the status of the configuration process.

   Configuration time depends on the products and tasks that you selected. Progress is recorded in `/diagnostics/logs/config/configtool.log`.

   When configuration finishes, the status of each task is displayed. Configuration results are noted in `/diagnostics/logs/config/configtool_summary.log`.

5. Click or select **Task Panel** to return to the Task Selection page to complete additional configuration tasks.

6. Configure the web server last.

7. Click or select **Finish**.

   If configuration is successful, perform any required manual configuration tasks, start services, and validate service startup.

   See Performing Manual Configuration Tasks in a New Deployment, Starting and Stopping EPM System Products and Validating the Installation and Verifying Deployment.

   Terminating configuration for a particular product does not terminate the entire process. Configuration continues for the other products. EPM System Configurator displays error messages on a summary page after the configuration process completes.

   If errors are displayed, perform these tasks:

- Review the log files.
- See the *Oracle Enterprise Performance Management System Installation and Configuration Troubleshooting Guide* for information about resolving configuration issues.
- If you see errors related to the Oracle HTTP Server installation, ensure that you have met the Oracle HTTP Server installation prerequisites. See Web Server Installation Prerequisites.

8. Refresh Oracle Hyperion Enterprise Performance Management Workspace.

# EPM System Configurator Task Reference

**Related Topics**

- Configure EPM Oracle Instance
- Task Selection
- Set Up Shared Services and Registry Database Connection
- Deploy to Application Server — Specify WebLogic Domain Information
- Deploy to Application Server: Oracle WebLogic
- Configure Database
- Foundation Configuration Tasks
- Essbase Configuration Tasks
- Financial Reporting Configuration Tasks
- Planning Configuration Tasks
- Financial Management Configuration Tasks
- Financial Close Management Configuration Tasks
- Configuration Summary

## Configure EPM Oracle Instance

Specify a new or an existing EPM Oracle instance for the deployment.

EPM System Configurator deploys dynamic components of Oracle Enterprise Performance Management System products (components that can change during run-time) in the EPM Oracle instance directory. The default EPM Oracle instance location is *MIDDLEWARE_HOME*`/user_projects/epmsystem1`.

Typically, if you are installing all products on a single machine, for the first product you configure, create a new EPM Oracle instance. For each product after that, modify the existing EPM Oracle instance.

If you are installing in a distributed environment, create a new EPM Oracle instance on each machine.

You can scale up or scale out by installing and configuring additional instances. See the *Oracle Enterprise Performance Management System Deployment Options Guide*.

The following table describes options for EPM Oracle Instance configuration.

| EPM System Configurator | Description | Your Information |
|---|---|---|
| Home directory for EPM Oracle instances | Specify the directory in which to create the EPM Oracle instance. The default EPM Oracle instance location is *MIDDLEWARE_HOME*/user_projects. To modify an existing EPM Oracle instance, browse to the EPM Oracle instance location. | |
| EPM Oracle Instance name | Specify a name for the EPM Oracle instance. The default EPM Oracle instance name is epmsystem1. To modify an existing EPM Oracle instance, specify the EPM Oracle instance name. | |

## Task Selection

Select the products and tasks to configure for this machine, or click or select **Next** to select all the required tasks.

Task selection notes:

- In a new installation, all required tasks are selected by default.
- You can clear tasks that you want to perform later.
- Select **Check All** or **Uncheck All** to select or clear all tasks.
- You cannot clear mandatory tasks, which are selected by default. If the task is unavailable (grey) and selected (checked), the task is performed and you cannot clear it.
- EPM System Configurator automatically performs common tasks the first time you configure any component of a product, such as registering the component with Oracle Hyperion Shared Services. EPM System Configurator uses the Oracle Hyperion Shared Services Registry to locate Shared Services.
- The Oracle Hyperion Enterprise Performance Management Workspace Java web application and the Shared Services Java web application are deployed when you select the Hyperion Foundation **Deploy to Application Server** task.

## Set Up Shared Services and Registry Database Connection

Specify the settings for the Oracle Hyperion Shared Services and Registry database.

When you initially configure Oracle Enterprise Performance Management System products, you configure a database for use by Oracle Hyperion Foundation Services, which includes the Oracle Hyperion Shared Services Registry.

When you configure the Shared Services and Registry database, EPM System Configurator ensures that the database is connected and is a supported database type. If a database is detected, you might be prompted to choose whether to use the detected database or create a database.

If you are configuring an Oracle database, EPM System Configurator checks that the database was created with the correct character set. If not, you are prompted to correct it.

For a list of supported databases, see the Certification Matrix (https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html).

For database prerequisites for this release, see Preparing a Database.

For more information about the Shared Services Registry, see About the Shared Services Registry.

> **Note:**
>
> This task assumes that you have created the database. If you have not created a database, see Preparing a Database.

If you uninstall EPM System products and then reinstall into the same location, you cannot reuse the Shared Services and Registry database.

The following table describes options for Shared Services and Registry Database configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Connect to a previously configured Shared Services database/Perform first-time configuration of Shared Services database | When you first configure the Shared Services and Registry database, choose **Perform first-time configuration of Shared Services database**. This database includes the Shared Services Registry, which is used to store common information for all products.<br>When you configure in a distributed environment, you must configure the Shared Services database on every machine. On the first machine, you are setting up the Shared Services Registry. For configurations on subsequent machines, choose **Connect to a previously configured Shared Services database**. In this case, you are letting the machine know the location of the Shared Services Registry.<br>For some products, you can use this same database to store product information. In this case, each product has its own table in this database. | |
| Database Type | Select the database type. | |
| Server | Specify the name of the database server where the Shared Services database should be created.<br>For Oracle RAC, specify the VIP name or one of the node names as the server name. | |
| Port | Select the default or specify a custom Shared Services server port number on which the database listens. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Service Name or SID, or Database Name | Specify the name of the Shared Services database.<br>If you are using an Oracle RAC database, specify the RAC service name. | |
| User Name | Enter the name of the database user. | |
| Password | Enter the password of the database user. | |
| Advanced options (Optional) | Click or select to specify additional information.<br>For more information on these options, see Advanced Options for Database Configuration (Optional).<br>You can use this option to configure Oracle RAC or an LDAP-based JDBC URL. | |

# Deploy to Application Server — Specify WebLogic Domain Information

Specify information about the WebLogic domain to which to deploy the Java web applications.

Deploy all Oracle Enterprise Performance Management System products to one domain.

> **Note:**
>
> If you are using Oracle Hyperion Financial Close Management, EPM System and Oracle SOA Suite must be deployed to the same domain. If you have already configured Oracle SOA Suite, deploy EPM System products to the same domain.

The following table describes options to define the Oracle WebLogic Server domain.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Deploy web applications to an existing domain/Deploy web applications to a new domain. The Administration Server for this domain will be created on this machine. | Specify whether to deploy Java web applications to an existing domain or to a new domain.<br>If you create a new domain, the WebLogic Administration Server for this domain is created on this machine. | |
| Domain Name | To define a new domain, enter a domain name. The default domain name is EPMSystem.<br>To deploy to an existing domain, specify the domain to use for deployment. | |
| Administration Server Host | For an existing domain, specify the Administration Server Host. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Administration Server Port | Accept the default port; or, to change the default, enter a port number that does not conflict with other applications installed on your machine. | |
| Administrator User | Enter the Administrator user name for the domain. By default, EPM System Configurator uses `epm_admin`. | |
| Administrator Password | Enter the Administrator password or enter a new password for a new domain. The maximum password length is 16 characters.<br>**Tip:** Make a note of this password. | |
| Confirm Administrator Password | If you are defining a new domain, confirm the Administrator password. | |

# Deploy to Application Server: Oracle WebLogic

Specify the application server options, or click or select **Next** to accept the default entries.

Deploy all Oracle Enterprise Performance Management System products to one domain.

The following table describes options for WebLogic application server deployment configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Deploy the web applications to a single managed server | Select this option for a deployment to a single managed server.<br>If you select this option, all selected Java web applications are deployed to a single managed server in WebLogic.<br>This option is available only when you are creating a new domain or extending an existing domain created in EPM System Configurator on the machine hosting WebLogic Administration Server.<br>To add products to a single managed server on a machine other than the machine hosting Oracle Hyperion Foundation Services, select **Scale out single managed server on this machine**.<br>Deploying Java web applications to a single managed server reduces memory requirements and reduces startup time. You can have only one single managed server in an EPM System deployment. You can scale out the single managed server.<br>When you select this option, all managed server names are changed to `EPMServer0`, and all ports are changed to `9000` or `9443` (SSL). If you change a port, it is reflected in all the rows.<br>If you deselect this option after it is selected, the port values revert to the default individual ports; and if already configured to a different port, the values revert to the user-provided ports. | |
| Ear/War | Select the components to deploy. | |
| Managed Server Name | Displays the WebLogic Managed Server name. | |
| Port | Accept the default port; or, to change the default, enter a port number that does not conflict with other applications installed on your machine.<br>See Ports. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| SSL Port | Accept the default port or specify the SSL port to use for deployment. Specifying this port sets up SSL using the Java application server's default certificates. See the *Oracle Enterprise Performance Management System Security Configuration Guide* for recommendations on updating the Java application server with a valid certificate.<br>If you are using SSL, you must disable the non-SSL port (or redirect it to the SSL port) in your Java application server after configuration to ensure secure communication. | |
| Status | Indicates the deployment status | |

Deployment notes:

- To specify the logical address the products use to connect to the Java web application server, use the "Update Logical Address for Web Applications" task. Select this task when the Java web applications do not communicate with the Java web application server directly, as in the following scenarios:
  - You have set up a cluster with a load balancer.
  - You are using an SSL offloader.

  See Configure Logical Address for Web Applications.
- The Oracle Hyperion Enterprise Performance Management Workspace Java web application and the Oracle Hyperion Shared Services Java web application are deployed when you select the Hyperion Foundation **Deploy to Application Server** task.
- If you are implementing a custom authentication module, you must include its Java archive (`.jar`) in the EPM Product classpath. See the *Oracle Enterprise Performance Management System Security Configuration Guide* for detailed procedures to implement a custom authentication module.

## What Happens During Deployment: WebLogic Server

Deployment notes:

- Essbase has its own WebLogic Administration Server and is deployed under a separate WebLogic Domain. The login credentials for WebLogic Administration are identical to those of the EPM WebLogic Administration Server.
- EPM System Configurator deploys each application to the Oracle WebLogic Server domain you specified. For a new domain, the domain is created when the first application is deployed. Each application runs in a separate JVM, except for Oracle Hyperion Shared Services and Oracle Hyperion Enterprise Performance Management Workspace, which run together and are deployed to the same managed server, or if you deploy multiple Java web applications to a single managed server.
- EPM System Configurator deploys the applications to *`MIDDLEWARE_HOME`*`/user_projects/domains/`*`domainName`*.
- EPM System Configurator deploys Oracle Enterprise Manager automatically when it deploys the first Java web application.

- Start and stop scripts are created in `/bin/`.
- For each application, in `/bin/deploymentScripts` there is a `setCustomParams`*`Product`*`.bat` file (`.sh` extension for Linux), where you can change *JAVA_OPTIONS* when using start scripts.
- EPM System Configurator creates a cluster for each managed server.

# Configure Database

Specify the database settings to use for the products that you selected on the Task Selection page. You can specify database connection information for each product separately, or use the same settings for multiple selected products.

For ease of deployment and simplicity, for a new installation, you can use one database for all products. In some cases, you might want to configure separate databases for products. Consider performance, roll-back procedures for a single application or product, and disaster recovery plans.

Database configuration notes:

- Ensure that the database is set up.

  If you have not already created the database, see Preparing a Database.
- A database type might not be available if one of the selected products doesn't support it. In this case, configure this product separately. See the Certification Matrix (https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html) for a list of supported databases for each product.
- If you are configuring an additional instance of Oracle Hyperion Financial Data Quality Management, Enterprise Edition for scaleout purposes, during database configuration, when you are prompted whether to drop and re-create the tables or reuse the existing database, select **Reuse the existing database**.
- When configuring Oracle Hyperion Financial Management in a distributed environment, you must select the **Configure Database** task for Financial Management on every machine hosting the Financial Management Application Server.
  If you are configuring an additional instance of Financial Management, when you are prompted whether to drop and re-create the tables or reuse the existing database, select **Reuse the existing database**.
- If you are configuring an Oracle database, EPM System Configurator checks that the database was created with the correct character set. If not, you are prompted to correct it.

## Advanced Options for Database Configuration (Optional)

The following table describes advanced options for database configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Edit and use modified JDBC URL | Select to specify a JDBC URL for the database connection. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| JDBC URL | Enter additional attributes for the database connection.<br>If you enter a JDBC URL, it overrides the values that you entered in the Configure Database page.<br>For an Oracle database, you can enter an LDAP-based JDBC URL.<br>See JDBC URL Attributes for more information. | |
| Use secure connection to the database (SSL) | Select to enable secure communication to the database.<br>To use an SSL-enabled JDBC connection, you must also enter specific parameters.<br>See JDBC URL Attributes for more information.<br>See the *Oracle Enterprise Performance Management System Security Configuration Guide* to see whether selecting this option is appropriate for your SSL implementation. | |
| Trusted Keystore | Enter or browse to the location of the keystore. | |
| Trusted Keystore Password | Enter the password for the keystore. | |
| **For Oracle** | | |
| Data Tablespace | Enter the name of an existing tablespace used to store table data. The data tablespace is the logical portion of the database used to allocate storage for table data. | |
| Index Tablespace | To specify the database tablespaces in which the indexes are created, select the index location. | |

# Foundation Configuration Tasks

**Related Topics**

- Configure Common Settings
- Configure Logical Address for Web Applications
- Set Shared Services Admin User and Password
- Scale Out Single Managed Server on This Machine
- Configure Web Server

## Configure Common Settings

Specify settings for all products on all machines that have been identified in the Oracle Hyperion Shared Services Registry so far, or click or select **Next** to accept the default values.

The **Configure Common Settings** page appears once per Oracle Enterprise Performance Management System deployment.

If you configure on another machine and change any of these options, your new selections apply for all products and machines that you have not configured. If you reconfigure on a machine, the new settings apply to any products that you reconfigure and to future configurations.

The following table describes options for common settings configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Create Windows Services for configured components (Windows only) | Select to configure each service as a Windows service that starts automatically when you start Windows. | |
| Run Windows Services as non-local system account | Select to specify a non-local system account to configure Windows services, and then specify a user name and password. This user should be a member of the Administrators group.<br>If you do not select this option, EPM System Configurator creates Windows services using the local system account. Before you start the services, change them to use the appropriate domain account | |
| User name | Enter the user name for the user to launch the Windows services. If you leave this field blank, EPM System Configurator creates the services using the local system account. | |
| Password | Enter the password for the user used to launch Windows services. | |
| Use SSL for Web application server communications (requires manual configuration) | Depending on your SSL implementation, select to use SSL communication for all Java web applications. If this option is selected, URLs are in the form `https`.<br>**Note:** Selecting this option does not enable secure communication for the Java web application server and does not create and load certificates into JREs and JDKs. See for more information.<br>Optionally, you can deploy non SSL and reconfigure to use SSL. See the *Oracle Enterprise Performance Management System Security Configuration Guide*. | |
| Mail Server Host | For products that integrate an e-mail feature, which uses standard Simple Mail Transfer Protocol (SMTP) protocol, specify the outgoing mail (SMTP) server. To enable e-mail alerts, you must specify the SMTP server name. | |
| Outgoing Port | Specify the mail server port number or accept the default value. If you are using SSL to communicate with the mail server, enter an SSL port. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Incoming Port | Specify the mail server port number or accept the default value. If you are using SSL to communicate with the mail server, enter an SSL port. | |
| Administrator's Email Address | Specify the administrator's e-mail address to use for notifications. | |
| Use SSL to communicate with mail server | Select to use SSL communication for all e-mail communication. | |
| Use authentication to send email | Specify whether the mail server requires authentication, and then specify a user name and password. | |
| User Name | Specify the user name for the SMTP server. | |
| Password | Specify the password for the SMTP server. | |
| LCM Export Import Location | Enter the location from which to export and import Oracle Hyperion Enterprise Performance Management System Lifecycle Management artifacts.<br>If you have a clustered environment and plan to use Lifecycle Management to migrate artifacts, specify a shared drive location. The shared location must be accessible to all Oracle Hyperion Shared Services instances. When artifacts are exported using Lifecycle Management, the content is exported to a path on a shared disk; when imported, the content is read from the exported location on the shared disk.<br>To enable data migration across distributed environments, specify a shared file system path defined using UNC syntax that is accessible from all the servers in the deployment.<br>For example, to specify a shared drive location on Windows, enter `\\sharedHost\sharedLocation`. On Linux, enter: `/sharedHost/sharedLocation`.<br>**Note:** If you are using Oracle Hyperion Financial Management in a distributed environment, configure the folder with Read/Write access for all the Financial Management Application Servers in the environment.<br>After configuration, restart all instances of Shared Services.<br>For each instance, start Shared Services as a service using the login of a domain user who has access to the shared disk/folder. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Enable SSL Offloading | Select this option if you are using an SSL Offloader. See for more information. | |
| External URL Host | Specify the host name for the external URL. | |
| External URL Port | Port number for the external URL. | |

## Configure Logical Address for Web Applications

Specify the logical address details to use for Java web applications, or click or select **Next** to accept the defaults:

Use this option to change the logical address for a deployed Java web application, for example if you are using a load balancer. This task lets you change the logical address without redeploying the Java web application. You can select this task during initial Java web application deployment.

For Oracle Hyperion Financial Reporting linked reports to work, configure Financial Reporting so that the logical address of the Financial Reporting component is same as web server port (for example, 19000).

> **Note:**
>
> You need to perform this task on only one machine in the deployment.

The following table describes options for configuring the logical addresses to use for Java web applications.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Set the logical web address for all the applications to / Set the logical address for each application individually to | Select whether to apply the same address to all Java web applications or to apply a different address to each Java web application | |
| Product Component | Shows the components for which a Java web application is deployed | |
| Host | For each enabled module, review the host name to which this web server proxies requests. | |
| Port | Review or update the port numbers for the application server listen ports for the applications. The port here must match the listen port of the deployed application. | |
| SSL Port | Review or update the SSL port of the logical web address.<br>If you are using SSL, you should disable the non-SSL port (or redirect it to the SSL port) in your Java application server after configuration to ensure secure communication. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Context | Review the context path. The context path is the part of the URL that accesses the deployed Java web application. For example, in the following URL, `workspace` is the context path:<br>`http://webserverhost.example.com:19000/workspace` | |

> **Note:**
>
> Use fully qualified host names for all entries. For example, `webserverhost.example.com`.

## Set Shared Services Admin User and Password

For hardened security, reset the password for the Oracle Hyperion Shared Services admin user. Optionally, specify an admin name other than the default, `admin`.

EPM System Configurator creates a preprovisioned user (called `admin` by default), which enables you to log on to Shared Services after configuration to create and provision users. EPM System Configurator requires you to specify a new admin password during configuration. After configuration, make subsequent changes to the admin user password in the Oracle Hyperion Shared Services Console. See the *Oracle Enterprise Performance Management System Security Configuration Guide*.

The following table describes options for resetting the Shared Services admin user password.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Admin Name | Optionally, specify a name other than the default name `admin` for the Shared Services administrator user. | |
| Password | Enter a new password for the Shared Services admin user. The maximum password length is 16 characters.<br>**Tip:** Make a note of this password. | |
| Re-type Password | To confirm the new password, re-enter the password for the Shared Services admin user. | |

## Scale Out Single Managed Server on This Machine

If you have deployed Oracle Enterprise Performance Management System Java web applications to a single managed server, use this option to scale out the server.

The **Scale out single managed server on this machine** option is only available when the following are true:

- The WebLogic Administration Server is not installed on the current machine.
- The single managed server is deployed on the WebLogic Administration Server.
- The single managed server is not already scaled out on the machine.

See "Scaling Out a Single Managed Server" in the *Oracle Enterprise Performance Management System Deployment Options Guide*.

## Configure Web Server

Specify web server information, or click or select **Next** to accept the defaults.

Information in this page comes from applications already deployed and recorded in the Oracle Hyperion Shared Services Registry and applications you are deploying in this configuration sequence.

If you deploy any additional products, reconfigure the web server and then restart it (or simply restart it if you configured Oracle HTTP Server to a shared drive) on each machine hosting Oracle Hyperion Foundation Services.

Then, refresh Oracle Hyperion Enterprise Performance Management Workspace on each Foundation Services host machine in your deployment.

> **Note:**
>
> Enabling SSL for the web server requires manual configuration. See the *Oracle Enterprise Performance Management System Security Configuration Guide*.

The following table describes options for the web server configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Web Server Type | Select the web server.<br>If you are using Oracle HTTP Server, you can configure to a shared drive location to simplify configuration in a distributed environment. Click **Advanced Options** and then specify the shared drive location. This shared location must be accessible from all web servers in the deployment and must a UNC path, not a mapped drive. | |
| Web Server Port | Specify the web server port. If you use SSL, ensure that the port number that you enter is a secure port. | |

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Set the logical web address for the web applications to this web server | Select this option if you want EPM System Configurator to set the logical web address for all Java web applications to the web server. Use this option if you want to use the web server as the load balancer.<br>If you do not select this option, EPM System Configurator uses the address of the physical Java web application as the logical address. | |
| Component | Review the components for which the web server is being configured. | |

# Essbase Configuration Tasks

**Related Topics**

- Configure Essbase Server

## Configure Essbase Server

Specify the configuration information for Oracle Essbase Server, or click or select **Next** to accept the default settings. In general, Oracle recommends that you keep the default settings.

During configuration, EPM System Configurator automatically registers Essbase with Oracle Hyperion Shared Services and writes the Shared Services connection information to `essbase.cfg` (in *`ARBORPATH`*`/bin`). In addition, it specifies environment variables in a file used to launch Essbase Server.

The following table describes the configuration options for Essbase Server.

To see the order in which the configuration screen appears, see Configuring Essbase.

**Table 9-6 Essbase Server Configuration**

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Enable Essbase | Selected by default.<br>When Enable Essbase is selected, both EAS and Essbase are selected. | |
| Enable APS | Selected by default.<br>When Enable APS is selected, both EAS and Essbase are disabled. | |
| Enable EAS | Selected by default.<br>**Note:** EAS can only be configured on server where Essbase is configured. | |

**Table 9-6 (Cont.) Essbase Server Configuration**

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Essbase Cluster Name | Specify a cluster name to create a cluster to provide active-passive Essbase failover support with write-back capabilities. You can include Essbase instances in a cluster. | When you configure the first instance of Essbase on the first machine, you define the cluster.<br>See Configure Essbase Servers in a Failover Cluster for more details.<br>The Essbase cluster name must be unique in a deployment environment. It cannot contain special characters or spaces.<br>See "Configuring Active-Passive Essbase Clusters (Windows)" or "Configuring Active-Passive Essbase Clusters (Linux)" in the *Oracle Enterprise Performance Management System Deployment Options Guide*. |
| Agent Port Number | Accept the default port number on which the Essbase listens for client requests. If you change the default value, enter a port number that is not used by other programs.<br>Select **Active** to enable the agent to listen on this port. | |
| SSL Agent Port Number | Specify the SSL port on which Essbase listens for client requests.<br>Select **Active** to enable the agent to listen on this port. | |
| Start Port | Accept the default number or enter the first port number on which the Essbase Server listens for client requests.<br>The port value is stored in `essbase.cfg` (in *`ARBORPATH`*`/bin`). | |
| End Port | Enter the greatest port number that Essbase Server can use to connect.<br>Essbase uses at least two ports for each application. For a large number of applications, you need a larger port range. | |

**Table 9-6 (Cont.) Essbase Server Configuration**

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Full path to application location (ARBORPATH) | The location for applications.<br>You can specify the path using universal naming convention (UNC) format. | Oracle recommends using UNC if you are configuring Essbase for high availability on Linux.<br>If you are setting up an Essbase cluster on Linux, the application location must be a shared drive or a UNC path. When you configure the second machine in the cluster, the location must match the location you specified for the first machine in the cluster.<br>In a failover configuration, Windows does not allow Universal or Uniform Naming Convention (UNC) paths for the `Application Directory`.<br>If you are setting up an Essbase Failover environment on Windows, ensure that the shared Essbase application directory is mounted on the same drive (for example, `Z:`) on all the nodes and use it as the application directory in EPM configuration tool. |

> **Note:**
>
> The configuration options for Essbase Server no longer includes **Binding Host Name** field.

## Essbase Configuration Settings

- Enable UTF-8 Unicode for worlwide language support:
  1. In Windows, Open **Control Panel** > **Clock and Region** > **Region**, select **Administrative** tab.
  2. Click **Change System Locale** and select the check box **Beta: Use Unicode UTF-8 for worldwide language support**.
  3. This will update the values of the following fields in the registry:

     ```
     [HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Nls\CodePage]
     "ACP"="65001"
     "OEMCP"="65001"
     "MACCP"="65001"
     ```

  4. Reboot your sytem. Reboot is required for each host that contains Essbase.
- The default and only supported value for ESSLANG is `.UTF-8@Binary`. Upon migration, the value of Esslang is automatically updated.
- Essbase 21c supports only Unicode applications. All the newly created Essbase applications are Unicode by default. You can still create non-Unicode apps with Cluster API (CAPI), Java API (JAPI), MAXL, and Essbase Administration Services (EAS) lite.

# Financial Reporting Configuration Tasks

**Related Topics**

- Configure Financial Reporting RMI Ports

## Configure Financial Reporting RMI Ports

Specify the following options to configure the Oracle Hyperion Financial Reporting RMI port range, or click or select **Next** to accept the defaults.

The following table describes options for Financial Reporting RMI port configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Port Range | Specify the range of ports to use, or click or select **Next** to keep the default port ranges. | |

# Planning Configuration Tasks

**Related Topics**

- Configure Planning RMI Server

## Configure Planning RMI Server

Specify the following options to configure the Oracle Hyperion Planning RMI Server port, or click or select **Next** to accept the defaults.

The following table describes options for Planning RMI Server port configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| RMI Port | Specify the port to use, or click or select **Next** to keep the default port. | |

# Financial Management Configuration Tasks

You must run EPM System Configurator as an administrator to configure Oracle Hyperion Financial Management.

## Financial Management — Configure Server

Specify the server information, or click or select **Next** to accept the defaults.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Port | Review or change the default port number on which Oracle Hyperion Financial Management listens for client requests. If you change the default value, enter a port number that is not used by other programs. Select **Active** to enable the server to listen on this port. | |
| SSL Port | Review or change the SSL port on which Financial Management listens for client requests. If you change the default value, enter a port number that is not used by other programs. Select **Active** to enable the server to listen on this port. | |
| Max App Server Delay | Accept the default value or enter the time interval in seconds between when a change is made to an application and when the change is visible to users accessing the application through another application server. | |
| Max Data Sync Delay | Accept the default value or enter the time interval in seconds between when a change is made to data and when the change is visible to users accessing the data through another application server. | |
| Database Connection Pool Size | Specify the number of maximum pooled relational database connections for the application. Financial Management requires approximately 25 relational database connections per application. | |
| Start Port | Accept the default number or enter the first port number in the range for the datasource connection. | |
| End Port | Accept the default number or enter the last port number in the range for the datasource connection. | |

## Financial Management — Configure Cluster

Specify the names of the application servers that participate in the cluster.

An application server cluster is a set of application servers running the same application. Clustered application servers provide load balancing and failover capability and enable the servers to be transparently maintained while applications remain available for users.

The following table describes options for Oracle Hyperion Financial Management cluster configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| Defined Clusters | Select the cluster for which you want to specify servers.<br>This list displays all clusters you have specified on any machine in the installation.<br>You can also add, edit, or remove a cluster.<br>When you add a cluster, specify the cluster name, and select **Use Sticky Server** if you want to direct all requests for a specific session to the same server. | |
| Available Servers | Select the server that you want to include in the cluster, and click or select **Add**.<br>The list displays all available servers. If there is only one server, it is listed here. Servers already in a cluster are not available and are not listed. | |
| Servers in the Cluster | The list displays all servers in the currently selected cluster. To remove a server from the list, select it and click or select **Remove**. | |

If you use multiple application servers connected to one database server, you must ensure that the system clocks on the application servers are synchronized. If the clocks are not synchronized, the data being viewed might not be current.

> **Note:**
>
> The synchronization between Financial Management application servers is based on system time. Changing the clock can affect this synchronization. For the time change to and from Daylight Savings Time, Oracle recommends that you stop the servers before the time change and restart them afterward.

# Financial Close Management Configuration Tasks

**Related Topics**

- Financial Close Custom Settings

## Financial Close Custom Settings

If you have an existing content management system, you can configure Oracle Hyperion Financial Close Management to link to the documents stored in it.

Specify the location of a Document Management System to use.

The following table describes options for Financial Close Management custom settings configuration.

| EPM System Configurator Fields | Description | Your Information |
|---|---|---|
| URL | Enter the URL of the system hosting the Document Management system.<br>See the Certification Matrix (https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html) for information about supported document management systems. | |

## Configuration Summary

Confirm the configuration tasks to complete, and then click or select **Next**. Or, click or select **Back** to make changes.

EPM System Configurator displays the progress and status of each configuration task.

Configuration time depends on the products and tasks that you selected. Progress is recorded in `/diagnostics/logs/config/configtool.log`.

When configuration is complete, EPM System Configurator shows the summary of the configuration, indicating which tasks completed and whether any tasks failed.

Click or select **Task Panel** to select additional configuration tasks, click or select **Finish** to close EPM System Configurator.

# Performing Silent Configurations

Silent configurations automate the configuration process so that you can configure Oracle Enterprise Performance Management System products on multiple computers without manually specifying configuration settings on each machine.

To enable silent configurations, record your configuration settings in a response file. You can then run a silent configuration from the command line, using the configuration options that were saved in the response file.

> **Note:**
>
> If you are performing a silent configuration using Remote Desktop, run it using an admin console session. (Launch Remote Desktop using `mstsc /admin`).

To record configuration settings and run a silent configuration:

1. Navigate to the directory that contains EPM System Configurator. By default, the directory is `/common/config/version_number`.
2. From a command line prompt, enter `configtool.bat -record filename` or `./configtool.sh -record filename`, where `filename` includes an absolute path or file name.

   The file is saved in XML format, but you need not save the file with a `.xml` extension.

   EPM System Configurator launches.

If you do not specify a file name, EPM System Configurator creates the file for you: `/common/config/version_number/configResponse.xml`.

3. Proceed through the EPM System Configurator, specifying the options that you want to record.

> **Note:**
>
> When you are recording silent configurations, you can proceed through EPM System Configurator only one time. (You cannot select go back to the Product Selection page to continue with more configuration tasks.) If you return to the Task Selection page, the response file is rerecorded.

Configuration options are recorded in the response file, which is in XML format. Passwords are saved in encrypted format in the response file.

You are now ready to configure products in silent mode.

4. Copy the response file to the machine on which you configure products. You can also copy the file to a network drive that is accessible from the machines you want to configure.
5. From the command line, enter a command:

   `configtool.bat -silent filename` or `./configtool.sh -silent filename`.

   The configuration runs in the background.

You can also record configuration settings from within EPM System Configurator. To record configuration settings, during configuration, on the Configuration Confirmation page, click or select Save, browse to a location, specify a file name, and click or select Save. The file is saved in the same format as for silent configurations.

Silent response files are not compatible between earlier releases and Release 11.2. If you created silent response files for use with any earlier release of EPM System, you must re-create them for use with EPM System Release 11.2.

You can modify the response file later to change configuration options.

You can use the same silent response file in different environments even when each environment has a different set of passwords for the database, WebLogic, and the Oracle Hyperion Shared Services Admin user. For security reasons, in the generated silent file, password values are stored in encrypted format but EPM System Configurator also supports unencrypted format. Oracle recommends that you change the password properties for Database, WebLogic, and Shared Services in the silent file to the following format:

```
Database Password
<property name="password" encrypt="true">clearTextPasword</property>

Weblogic Admin Password in applicationServerDeployment section
<property name="adminUser">epm_admin</property>
<property name="adminPassword" encrypt="true">clearTextPasword</property>

Shared Services Admin Password in bean name="customConfiguration" for
Foundation
<property name="adminUserName">admin</property>
<property name="adminPassword" encrypt="true">clearTextPasword</property>
```

Copy a version of the file for each environment and replace *clearTextPassword* with the appropriate password for that environment. After executing the silent file for each environment, for security reasons, if the file is writable by EPM System Configurator, the password is stored in the file in an encrypted format.

# What Happens During Configuration

During product configuration, EPM System Configurator completes these actions:

- Performs the configuration tasks that you selected
- Configures each product to start as a Windows service, if you select this option on the "Configure Common Settings" page during configuration
- Creates a default Oracle Hyperion Shared Services Administrator role in Native Directory when you configure Oracle Hyperion Foundation Services. This is the only preprovisioned user created. Subsequently, when you use EPM System Configurator to register products with Shared Services, the Shared Services Administrator role is provisioned with the product administrator role.

# Troubleshooting Configuration

Configuration results are noted in `/diagnostics/logs/config/configtool_summary.log`.

If you encounter errors, perform these tasks:

- Configure products individually.
- See the *Oracle Enterprise Performance Management System Installation and Configuration Troubleshooting Guide* for information about configuration checks, debugging using logs, troubleshooting methodology, and solutions to common configuration issues.

> **Tip:**
>
> EPM System Configurator provides a script, `ziplogs`, in `EPM_ORACLE_INSTANCE/bin`. You can run this script to provide files to Support for troubleshooting installation and configuration issues. This tool collects all log files, including logs for installation, configuration, and validation and registry reports if you have used those tools, and saves them in ZIP file in `/diagnostics/ziplogs`.

10

# Applying an Update to EPM System Products

**Related Topics**

- About Applying an Update
- Applying an Update Installation Checklist
- Downloading and Extracting Installation Files
- Applying an Update Prerequisite Tasks
- Installing EPM System Products Using Apply Update
- Configuring EPM System After Applying an Update
- Refreshing EPM Workspace
- Validating the Installation and Verifying Deployment

## About Applying an Update

If you are applying an update to move from Oracle Enterprise Performance Management System Release 11.2.x to Release 11.2.15, use the procedures in this chapter.

Notes about applying an update:

- You can update directly from Release 11.2.12, or Release 11.2.13, or Release 11.2.14 to Release 11.2.15. See Supported Paths for more information on the supported paths to Release 11.2.15.
- You must log in as the same user that installed and configured the previous release.
- When you apply an update, you must install to the same machine as the previous installation.
- When you apply an update, all installed EPM System components are updated. There is no option to select components.
- If Fusion Middleware components are not updated in an 11.2.x release, installation selections for WebLogic, ODI, Oracle HTTP Server, or Oracle Database clients are not available.
- If you apply an update to move from an existing Release 11.2.x to Release 11.2.15, you can't roll back to the previous release.

## Applying an Update Installation Checklist

**Table 10-1 Applying an update installation checklist**

| Task | Reference |
|---|---|
| 1. Download and extract the installation files. | Downloading and Extracting Installation Files. |
| 2. Perform the **Apply Update** installation prerequisite tasks. | Applying an Update Prerequisite Tasks. . |

**Table 10-1 (Cont.) Applying an update installation checklist**

| Task | Reference |
|---|---|
| 3. Install Oracle Enterprise Performance Management System products. | Installing EPM System Products Using Apply Update. |
| 4. Update RCU Schema Properties (For Essbase Only).<br>**Note:** Perform this step (on each host) only if Essbase is installed. | Updating RCU Schema Properties (For Essbase only). |
| 5. Run EPM System Configurator and perform the configuration tasks needed for the release you are updating from. | Configuring EPM System After Applying an Update. |
| 6. Start all the Services. | Starting all the Services (WebLogic and EPM). |
| 7. Refreshing EPM Workspace. | Refreshing EPM Workspace. |
| 8. Validate the installation using EPM System Diagnostics and generate a deployment report. | Validating the Installation and Verifying Deployment. |

> **Note:**
>
> Repeat the above steps (2-8) for all hosts in the environment.

# Downloading and Extracting Installation Files

Download the Oracle Enterprise Performance Management System Release 11.2.15 files from Oracle Software Delivery Cloud (http://edelivery.oracle.com/). Oracle recommends that you download files to a shared drive. See Downloading Files for Installation for details on downloading and extracting installation files.

# Applying an Update Prerequisite Tasks

Before applying the update to move to Oracle Enterprise Performance Management System Release 11.2.15:

1. Disable the anti-virus software before you install and configure Release 11.2.15. Ensure that you have the anti-virus software disabled for the entire duration of the install and configuration process. Anti-virus software can be re-enabled when the installation is complete.
2. Stop all the services. For more information, see Starting and Stopping EPM System Products.
3. Back up the following folders:
   - EPM Oracle Home. The default EPM Oracle home location is *MIDDLEWARE_HOME*/EPMSystem11R1.
   - EPM Oracle Instance. The default location for the EPM Oracle Instance is *MIDDLEWARE_HOME*/user_projects/epmsystem1.

You can delete these folders after you apply the update and validate the installation.

4. Back up the keystores (only for SSL environments) from:
   - `MIDDLEWARE_HOME\jdk\jre\lib\security\cacerts`
   - `MIDDLEWARE_HOME\EPMSystem11R1\common\JRE\Sun\1.8.0\lib\security\cacerts`

> **Note:**
>
> Ensure that you restore the backed up keystores (cacerts) after the installation and configuration process.

5. If the files (for example, "Calc Scripts", "Rule Files") in your 11.2.x Essbase instance have names that contain non-English characters , they might not be converted to Essbase 21c as part of the upgrade to EPM 11.2.15. Ensure that you manually migrate those files.
6. Ensure that there is at least three times as much free space as the total size of the Essbase cube in your `temp` directory when upgrading from Release 11.1.2.x to Release 11.2.15. For example, if the data size of the Essbase cube is, for example, 10 GB, then there must be 3 * 10 (30 GB) of space available in your `temp` directory.

   This space will be cleaned up after the upgrade process and is only used for temporary purposes.
7. For EPM products using Java API (JAPI) - Ensure that you take a backup of the file `EPM_ORACLE_HOME\common\EssbaseJavaAPI\11.1.2.0\bin\essbase.properties` and copy it to `EPM_ORACLE_HOME\common\EssbaseJavaAPI-21C\11.1.2.0\bin\essbase.properties` after the upgrade to Release EPM 11.2.15.

# Installing EPM System Products Using Apply Update

When you apply an update, install using the same user that was used to install the earlier release.

> **Note:**
>
> If you are using Windows 2016, see the post configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.

To apply the update to Oracle Enterprise Performance Management System products:

1. Launch EPM System Installer:

   Double-click `installTool.cmd` in the root directory to which you extracted the EPM System Installer files.

   (Linux) Change to the root directory to which you extracted the EPM System Installer files and enter `./installTool.sh`.
2. In **Destination**, click **Next**. You can't change the destination. You must apply the update on top of your existing EPM System installation.
3. In **Installation Type**, **Apply Update** is selected for you; click **Next**.

4. Step through EPM System Installer. In **Product Selection**, click **Next**. You can't change the product selection.

   You must apply the update to all EPM System products in the deployment. You can't apply the update to only some products.

5. When installation is complete, click **Finish.**
6. Repeat the installation steps on each machine in the deployment.

See Updating RCU Schema Properties (For Essbase only) or Applying an Update Installation Checklist.

# Configuring EPM System After Applying an Update

After installing Oracle Enterprise Performance Management System using the **Apply Update** installation option, you must perform the following tasks.

> **Note:**
>
> 1. Ensure that Oracle WebLogic Server Administration Server is running on the Foundation Services host machine (FNDHOST1).
> 2. If you are using Windows 2016, see the post configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.

1. Launch EPM System Configurator using one of these methods:
   - From the **Start** menu, select **Oracle EPM System**, and then **EPM System Configurator (all instances)**.
   - Open command prompt and run `configtool.bat` from this location: *`EPM_ORACLE_HOME`*`/common/config/`*`11.1.2.0`*.
2. Follow the EPM System Configurator wizard and select this option in **Configuration**

   > **Note:**
   >
   > Ensure that you select only those products that you configured in your prior release.

   - **Deploy To Application Server** for all Web apps.
   - **Configure Application Server** for Oracle Hyperion Financial Management. This step is not required if you are on Linux.
   - **Configure Essbase Server**

> **Note:**
>
> - `essbase.cfg` file from the prior release is retained following the update process.
> - The following SSL configuration settings are removed after the update process:
>   - `WALLETPATH`
>   - `SSLCIPHERSUITES`
>   - `ENABLESECUREMODE`
> - The only supported value for ESSLANG is `.UTF-8@Binary`. The value of Esslang is automatically updated.

3. Open command prompt and run `stopWeblogic.cmd` from this locaion: `<MIDDLEWARE_HOME>/user_projects/domains/EPMSystem/bin/stopWeblogic.cmd` to stop the WebLogic Server Administration Server.
4. **Configure Web Server** last after all the hosts in the environment are configured.

> **Note:**
>
> Ensure that **Set the logical address for the applications to this web server** is selected on the **Confugure Web Server** page. Note that you cannot configure the hosts simultaneously. You must perform the configuration sequentially, one after the other.

See Applying an Update Installation Checklist.

# Refreshing EPM Workspace

If you deploy any additional products, reconfigure the web server and then restart it (or simply restart it if you configured Oracle HTTP Server to a shared drive) on each machine hosting Oracle Hyperion Foundation Services.

Then, refresh Oracle Hyperion Enterprise Performance Management Workspace on each Foundation Services host machine in your deployment.

To refresh EPM Workspace:

1. Start a browser session.
2. Access EPM Workspace by accessing the following URL:

   `http://FNDHOST1:9000/workspace/refresh`

   In this URL, use port `9000`, which is the managed server port where EPM Workspace is available, not the Oracle HTTP Server port.
3. At the Login screen, enter **admin** and the deployment password.

   You should get a success message.

4. Repeat these steps on each Foundation Services host machine in your deployment.

See Validating the Installation and Verifying Deployment or Applying an Update Installation Checklist.

# Validating the Installation and Verifying Deployment

**Related Topics**

- Validating the Installation
- Verifying the Import of Essbase 11g applications
- Generating a Deployment Report
- Verifying Deployment
- Validating a Financial Close Management Deployment

11

# Upgrading EPM System (from 11.1.2.4 to 11.2.8)

**Related Topics**

- About Upgrading
- Upgrading Checklist
- Upgrade Installation Prerequisites
- Preparing Artifacts and Data for Upgrading
- Downloading and Preparing Files for Installation
- Installing EPM System Products for an Upgrade
- Restoring the Financial Management Schema
- Configuring EPM System Products for an Upgrade
- Starting EPM System Services
- Validating the Installation
- Importing Artifacts and Data for Release 11.2
- Importing Performance Management Architect Application Metadata into Data Relationship Management
- Exporting from Data Relationship Management and Importing to EPM Applications
- Repeating the Upgrade Process for Applications
- Upgrading EPM System Clients

## About Upgrading

This chapter describes the upgrade process for Oracle Enterprise Performance Management System products.

You can upgrade EPM System products to Release 11.2.x from Release 11.1.2.4.xxx. To update your existing applications, you deploy EPM System Release 11.2.x software on a new machine and migrate EPM System Release 11.1.2.4.xxx artifacts (such as applications, metadata, and security) and data to the new deployment.

Beginning with Release 11.2.5, you can upgrade and migrate from a Solaris environment in Release 11.1.2.4.xxx to either a Windows environment or a Linux environment in Release 11.2.5+. The upgrade and migration process is the same.

For more information about upgrading clients, see Upgrading EPM System Clients.

For information about EPM System products that are no longer available in Release 11.2.x, see the *Oracle Enterprise Performance Management System Installation and Configuration Readme*.

# Upgrading Checklist

The following table identifies the high-level tasks that you perform to upgrade Oracle Enterprise Performance Management System products. You must perform tasks in this order and you must complete the entire checklist.

The process described in this chapter assumes that you upgrade one product at a time and indicates where a sequence is required.

**Table 11-1 Upgrading Checklist**

| Task | Reference |
|---|---|
| Go through the tasks in the following section once for all EPM System products at one time. | |
| **Preparing to Upgrade** | |
| 1. Review release compatibility, system requirements, and other prerequisites for this release.<br>If your database environment needs to be upgraded, perform the database upgrade before you proceed. See the database documentation for details. | *Oracle Enterprise Performance Management System Certification Matrix* (https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html) |
| 2. Prepare the new environment for the new Release 11.2 installation.<br>In preparation for a new installation, you can use a worksheet to note the machines on which earlier release products are installed, and the machines on which you plan to install the new release products. You can refer to this information in subsequent procedures.<br>Create new repositories in preparation for migrating or copying data as described in Preparing a Database. | Preparing Your Environment |
| 3. Perform upgrade-specific prerequisite tasks. | Upgrade Installation Prerequisites |
| 4. Prepare artifacts, applications, data, and security information from your Release 11.1.2.4.xxx environment for upgrading. You can perform this task for each product in any order. | Preparing Artifacts and Data for Upgrading |
| 5. Download and prepare the installation files.<br>Iterate through the remaining checklist items for each product, one product at a time, in the following order:<br>• Oracle Hyperion Foundation Services<br>• Oracle Essbase Server and all other Essbase products. Note that after configuring other products, you must also configure the web server. After configuration, restart the web Server and Oracle Hyperion Enterprise Performance Management Workspace.<br>• All other EPM System products, in any order. Note that after configuring each product, you must also configure the Web server. After configuration, restart the Web Server and EPM Workspace. | Downloading Files for Installation |

**Table 11-1 (Cont.) Upgrading Checklist**

| Task | Reference |
|---|---|
| **Installing and Configuring** | |
| 6. Install EPM System Release 11.2 products (choosing the **New installation** option) in a new installation location. | Installing EPM System Products for an Upgrade |
| 7. Before configuring Oracle Hyperion Financial Management, restore the schema. | Restoring the Financial Management Schema |
| 8. Configure Release 11.2 products, one at a time.<br>You must configure Foundation Services first. Foundation Services must be installed and configured for other products to configure successfully.<br>If you have already configured the web server and you configure any additional products, you must run EPM System Configurator again and select the Foundation Services **Configure Web Server** task. Then, restart the web server and EPM Workspace.<br>**Note:** When you upgrade Financial Management, special steps are required during configuration. | Configuring EPM System Products for an Upgrade |
| 9. Start EPM System services. | Starting and Stopping EPM System Products |
| 10. Using Oracle Hyperion Enterprise Performance Management System Diagnostics, validate the installation. | Validating the Installation and Verifying Deployment |
| 11. Configure any external authentication directories that were used in Release 11.1.2.4. | *Oracle Enterprise Performance Management System Security Configuration Guide* |
| 12. Install and configure Oracle Data Relationship Management if you are using it, following the steps for upgrading from Release 11.1.2.4. | Data Relationship Management Installation Guide |
| **Import applications, data, security, and other artifacts** | |
| 13. Import artifacts including applications, data, and security information. Note the required sequence:<br>1. Users and groups.<br>2. Applications and data.<br>3. Oracle Hyperion Calculation Manager artifacts.<br>4. Provisioning information and taskflows.<br>**Note:** Before you perform this step, make sure you have moved the LCM export files that you exported from Release 11.1.2.4 to the Oracle Hyperion Enterprise Performance Management System Lifecycle Management Release 11.2 **LCM Export Import Location** that you defined during configuration. | Importing Artifacts and Data for Release 11.2 |

**Table 11-1 (Cont.) Upgrading Checklist**

| Task | Reference |
|---|---|
| 14. If you were working with Oracle Hyperion EPM Architect-based applications in Release 11.1.2.4, and want to manage metadata in Data Relationship Management in Release 11.2, import Performance Management Architect application metadata for your product into Data Relationship Management, and manage the metadata as needed in preparation for importing metadata to your Release 11.2 application.<br>**Note:** This step is required for Oracle Hyperion Profitability and Cost Management (Standard and Detailed applications). It is also required for Essbase, Oracle Hyperion Planning, and Financial Management if you want to manage metadata in Data Relationship Management. | Importing Performance Management Architect Application Metadata into Data Relationship Management |
| 15. If you are using Data Relationship Management to manage metadata, export metadata from Data Relationship Management and import it to your applications.<br>**Note:** This step is required for Profitability and Cost Management (Standard and Detailed applications). It is also required for Essbase, Planning, and Financial Management if you want to manage metadata in Data Relationship Management. | Exporting from Data Relationship Management and Importing to EPM Applications |
| 16. Perform required manual configuration tasks for Oracle Hyperion Financial Close Management. | Performing Manual Configuration Tasks in a New Deployment |
| 17. Restart EPM System services and re-run EPM System Diagnostics. | Validating the Installation and Verifying Deployment |

# Upgrade Installation Prerequisites

Before you proceed with an upgrade:

- Back up information from the earlier release including databases, schemas, applications, and other files. See the *Oracle Enterprise Performance Management System Backup and Recovery Guide* for Release 11.1.2.4.
- Optionally, for Release 11.1.2.4.xxx, for Oracle Hyperion Financial Management, Oracle Hyperion Financial Close Management, Oracle Hyperion Financial Reporting, and Oracle Hyperion Financial Data Quality Management, Enterprise Edition, review and delete any applications and artifacts that you will not be using in the new environment.
- Remove artifacts for reporting products that are no longer available. See the *Oracle Enterprise Performance Management System Installation and Configuration Readme*.
- Prepare a method for transferring artifacts from the Release 11.1.2.4 environment to the Release 11.2 environment.
  If the Release 11.1.2.4 environment and Release 11.2 environment are on the same network, you can export artifacts to a shared drive. If your Release 11.1.2.4 environment and Release 11.2 environment are not on the same network, export to a location from which you can use a method such as ftp to transfer files to the Release 11.2 environment.

- If you configured Financial Close Management or Financial Management with other products in the same EPM System database in Release 11.1.2.4, extract database tables and other database objects separately for Financial Close Management and Financial Management. Use these extracts for restoring in the Release 11.2 environment.
  For Financial Close Management, extract:
  - Financial Close Management and Tax Governance: FCC%, FCM%, S_ROW_ID%
  - Account Reconciliation Management: ARM%, FCM% and S_ROW_ID
  - Supplemental Data Manager and Tax Supplemental Schedules: SDM%, FCM%, and S_ROW_ID

  For Financial Management, extract primary keys, indexes, and sequences for:
  - System Tables
    - HFM_*
    - HSV_*
    - HSX_*
    - XFM_*
  - Application Tables
    - *_ACCOUNT_*
    - *_ATTACHMENTS
    - *_BINARYFILES
    - *_CELLTXTLBL_*
    - *_CONSMETH
    - *_CONSMETH_*
    - *_CSE_*
    - *_CSN_*
    - *_CURRENCIES
    - *_CURRENCIES_*
    - *_CUSTOM_*
    - *_DATATIMESTAMP
    - *_DATA_AUDIT
    - *_DCE_*
    - *_DCN_*
    - *_DCT_*
    - *_ENTITY_*
    - *_ERPI
    - *_ERPI_URL
    - *_ETX_*
    - *_ICP_*
    - *_ICRATE_*
    - *_ICTRN_*

- *_ICT_*
- *_JLENT_*
- *_JLTMP
- *_JLTMPENT
- *_JL_*
- *_JPD_*
- *_LID_*
- *_MODULE_CONFIG
- *_PARAMETERS
- *_PFLOW
- *_PFLOWH_*
- *_PFLOW_*
- *_PFLOW_PHASEGROUP
- *_RPTS
- *_RTD_*
- *_RTS_*
- *_RUNNINGTASKS
- *_SCENARIO_*
- *_TASK_AUDIT
- *_TASK_AUDIT_ATT
- *_TXTITEM_*
- *_TXT_*
- *_USERPARAMS
- *_VALUE_*

When you are done with this step, return to the Upgrading Checklist.

# Preparing Artifacts and Data for Upgrading

Use the steps in the following sections to prepare artifacts and data from Release 11.1.2.4.xxx for upgrading. Most products use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export artifacts and data in preparation for upgrade. You move application artifacts from one environment to another by downloading the artifacts from the File System node in Shared Services Console. When you download Lifecycle Management artifacts, they are saved in a ZIP file. You can then upload the ZIP file containing the artifacts to the Release 11.2 environment.

> **Note:**
>
> The Lifecycle Management **Download** option is available only if the file system folder is a ZIP file on the server. The file system folder is zipped by Lifecycle Management during the export operation only if the folder size is less than or equal to 2 GB. For content greater than 2 GB, you must use a mechanism such as FTP to move the content from one environment to another. Copy the artifacts from the **LCM Export Import Location** you defined during Release 11.1.2.4 configuration to a location accessible to the Release 11.2 environment.

For details about using Lifecycle Management, see Oracle® Enterprise Performance Management System Lifecycle Management Guide

If the Release 11.1.2.4 environment and Release 11.2 environment are on the same network, you can export artifacts to a shared drive. If your Release 11.1.2.4 environment and Release 11.2 environment are not on the same network, export to a location from which you can use a method such as FTP to transfer files to the Release 11.2 environment.

## About Migrating from Performance Management Architect

Oracle Hyperion EPM Architect isn't available in Oracle Enterprise Performance Management System Release 11.2. If you're migrating to EPM System Release 11.2 and have metadata in Performance Management Architect Release 11.1.2.4, you can migrate the application metadata out of Performance Management Architect Release 11.1.2.4 into Oracle Data Relationship Management Release 11.2.

> **Note:**
>
> This step is required for Oracle Hyperion Profitability and Cost Management (Standard and Detailed applications). It is also required for Oracle Essbase, Oracle Hyperion Planning, and Oracle Hyperion Financial Management if you want to manage metadata in Data Relationship Management.

If you have Performance Management Architect-based applications in Release 11.1.2.4 and want to manage metadata in Data Relationship Management Release 11.2, review this overview of the process. Detail about these steps is provided in the upgrade instructions for each product. Note that these steps are in addition to the tasks required for exporting and importing artifacts for each product.

1. Export your 11.1.2.4 application metadata from Performance Management Architect to a file using the EPMA File Generator Utility.

   For more information on using the EPMA File Generator, see From Performance Management Architect, Profitability and Cost Management, Essbase (ASO) and Essbase (BSO) Applications.

   Then, update the file so that it's compatible with Data Relationship Management. This may be a file conversion utility or a manual procedure.

   This step is covered in the "Preparing Artifacts and Data for Upgrading" section for your product.

2. Create an application in Data Relationship Management using predefined templates and import your application metadata (the converted file from the previous step) to it.

Then, manage your metadata in Data Relationship Management.

For more information about using Data Relationship Management to manage metadata, see Importing Performance Management Architect Application Metadata into Data Relationship Management.

3. When your metadata is ready to be used in your EPM System Release 11.2 application, export application metadata out of Data Relationship Management and import it into your EPM System application. See Exporting from Data Relationship Management and Importing to EPM Applications.

For more information, see *Oracle Data Relationship Management Integrating Oracle Data Relationship Management Suite with Enterprise Performance Management*.

# Preparing Foundation Services Artifacts for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export users, groups, provisioning information, and taskflows from Oracle Hyperion Foundation Services Release 11.1.2.4.xxx.

> **Note:**
>
> You must export users and groups separately from provisioning information and taskflows.

To export artifacts from Foundation Services Release 11.1.2.4.xxx:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand the **Foundation** application group, and then select **Shared Services**.
4. Expand **Native Directory** and then click **Users** and **Groups**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `shared_services_users_groups_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the Shared Services folder you created, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.
10. Repeat these steps, this time exporting provisioning information and taskflows: Expand **Native Directory** and then select **Assigned Roles** and **Roles**, and then select **Taskflows**. In the **Export** dialog box, in **File System Folder**, enter a meaningful name for the artifacts to be exported, such as `shared_services_provisioning_task_flows_11.1.2.4`.
11. If you are using an external authentication provider, repeat these steps, this time exporting assigned roles for your provider. In **Foundation**, **Shared Services**, expand *external*

*authentication provider*, select **Assigned Roles**, and then click **Export**. Specify a meaningful name such as`external provider_provisioning 11124`.

# Preparing Essbase Applications for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Oracle Essbase applications (metadata and data) from Release 11.1.2.4.xxx.

To export applications from Essbase Release 11.1.2.4.xxx:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand **EssbaseCluster-*N***, and then select the application to export.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `essbase_application_name_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the Essbase folder you created, and then select **Download**.
   The **Download** option is available only if the folder size is less than or equal to 2 GB. Because the Essbase ZIP file is likely larger than 2GB, use an alternate method to access the file. For example, use a method such as FTP to transfer the folder to a location accessible to the Release 11.2 environment. By default, the exported folder is stored in *EPM_ORACLE_INSTANCE*`\import_export`.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.
10. Repeat these steps for each application in **EssbaseCluster-*N***.
11. Optionally, for Oracle Hyperion EPM Architect-based Essbase applications, if you want to manage your metadata in Oracle Data Relationship Management in Release 11.2, see Exporting Essbase Metadata from Performance Management Architect.

# Exporting Essbase Metadata from Performance Management Architect

### Export Metadata

To export 11.1.2.4 Oracle Essbase application metadata:

1. Launch the EPMA File Generator Utility by selecting **Start**, **Oracle EPM Systems**, **Foundation Services**, **Performance Management Architect**, and then **Start File Generator**.

   The file generator is installed with Oracle Hyperion EPM Architect by default to:

   ```
   <Local
   Drive>:\Oracle\Middleware\EPMSystem11R1\products\Foundation\BPMA\EPMAFileGener
   ator\bin
   ```
2. Click **From EPMA Application**.

3. Enter the following information:
   - User name and password for the EPMA administrator
   - URL for EPMA Web Server
   - Name of the EPMA application
   - EPMA import file
4. Click **Execute**.

**Convert Export Files**

Convert the export file to an Oracle Data Relationship Management compatible import file. For information on converting the export file, go to Oracle Support and navigate to the white paper "How to Migrate Metadata from EPMA to DRM Application (Doc ID 2626317.1)". This white paper also contains a link to a conversion utility that you can use to convert your export file to a file that's compatible with Data Relationship Management.

For information on how to create imports for Data Relationship Management, see Working with Imports.

# Preparing Planning Applications for Upgrading

The steps for preparing Oracle Hyperion Planning applications for upgrading depend on the application type:

- For Classic Planning applications, see Preparing Classic Planning Applications for Upgrading.
- For Oracle Hyperion EPM Architect-based Planning applications, see Preparing Performance Management Architect-Based Planning Applications for Upgrading.

In addition, make a note of the data source name for each application. You'll need it later in the upgrade process. (In Oracle Hyperion Enterprise Performance Management Workspace, select **Navigate**, then **Administer**, and then **Planning Administration**. Then, click **Manage Data Source** .)

## Preparing Classic Planning Applications for Upgrading

To prepare Classic Oracle Hyperion Planning applications for upgrading, export applications using Oracle Hyperion Enterprise Performance Management System Lifecycle Management. See Exporting Planning Applications Using Lifecycle Management.

### Exporting Planning Applications Using Lifecycle Management

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Oracle Hyperion Planning applications (metadata, data, and other artifacts) from Release 11.1.2.4.xxx.

Before exporting, refresh the cube for the Planning Release 11.1.2.4 application. The cube refresh must be successful before continuing. See the *Oracle Hyperion Planning Administrator's Guide* for details on refreshing the cube.

To export Planning applications from Release 11.1.2.4.xxx:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.

3. In the View pane, expand the **Application Groups** node, expand the application group that includes your Planning applications, and then select the application to export.
4. Click **Select All**.

> **Tip:**
>
> For large applications, consider exporting Essbase Data separately from the metadata (all the other options).

5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `planning_application_name_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
   The **Download** option is available only if the folder size is less than or equal to 2 GB. If the Planning ZIP file is larger than 2GB, use an alternate method to access the file. For example, use a method such as FTP to transfer the folder to a location accessible to the Release 11.2 environment. By default, the exported folder is stored in *EPM_ORACLE_INSTANCE*`\import_export`.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.
10. Repeat these steps for each application.

## Preparing Performance Management Architect-Based Planning Applications for Upgrading

To prepare Oracle Hyperion EPM Architect-based Oracle Hyperion Planning applications for upgrading:

1. Convert the applications to Classic applications. See Converting Performance Management Architect-Based Planning Applications to Classic Planning Applications.
2. Export the applications using Oracle Hyperion Enterprise Performance Management System Lifecycle Management. See Exporting Planning Applications Using Lifecycle Management.
3. Export Planning metadata from Performance Management Architect. See Exporting Planning Metadata from Performance Management Architect.

### Converting Performance Management Architect-Based Planning Applications to Classic Planning Applications

To convert Oracle Hyperion EPM Architect-based Oracle Hyperion Planning Release 11.1.2.4 applications to Classic applications:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.

2. In EPM Workspace, open the application to the Classic Dimension Manager: From the **Navigate** menu, select **Applications**, then **Planning**, and then select the application name.

   Note that Performance Management Architect-based applications have only viewing properties available; you can't edit them. (To check this, select **Administration**, then **Manage**, and then **Dimensions**.

3. Navigate to the **Application Properties Editor** by selecting **Administration**, then **Application** , and then **Properties**, add the following property, and then click **Save**.

   - Property Name: **EDIT_DIM_ENABLED**
   - Property Value: **true**

   If the property is already present, change the value to **true**.

4. Restart the Planning server.

> **Note:**
>
> To validate that the application is now a classic application, in EPM Workspace, in the View pane, expand the **Application Groups** node, expand the application group that includes your Planning applications, and then select the application. In the right pane, expand **Configuration**, then **Properties**, and then make sure there is a property called **Application Definition**.

## Exporting Planning Applications Using Lifecycle Management

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Oracle Hyperion Planning applications (metadata, data, and other artifacts) from Release 11.1.2.4.xxx.

Before exporting, refresh the cube for the Planning Release 11.1.2.4 application. The cube refresh must be successful before continuing. See the *Oracle Hyperion Planning Administrator's Guide* for details on refreshing the cube.

To export Planning applications from Release 11.1.2.4.xxx:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand the application group that includes your Planning applications, and then select the application to export.
4. Click **Select All**.

> **Tip:**
>
> For large applications, consider exporting Essbase Data separately from the metadata (all the other options).

5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `planning_application_name_11.1.2.4`.

Check the status column and wait for **Completed** status.

7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
   The **Download** option is available only if the folder size is less than or equal to 2 GB. If the Planning ZIP file is larger than 2GB, use an alternate method to access the file. For example, use a method such as FTP to transfer the folder to a location accessible to the Release 11.2 environment. By default, the exported folder is stored in *EPM_ORACLE_INSTANCE*`\import_export`.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.
10. Repeat these steps for each application.

## Exporting Planning Metadata from Performance Management Architect

### Export Metadata

To export 11.1.2.4 Oracle Hyperion Planning application metadata:

1. Launch the EPMA File Generator Utility by selecting **Start**, **Oracle EPM Systems**, **Foundation Services**, **Performance Management Architect**, and then **Start File Generator**.

   The file generator is installed with Oracle Hyperion EPM Architect by default to:

   ```
   <Local
   Drive>:\Oracle\Middleware\EPMSystem11R1\products\Foundation\BPMA\EPMAFileGener
   ator\bin
   ```
2. Click **From Planning Application**.
3. Enter the following information:
   - User name and password for the EPMA administrator
   - URL for EPMA Web Server
   - Name of the EPMA application
   - EPMA import file
4. Click **Execute**.

### Convert Export File

Convert the export file to an Oracle Data Relationship Management compatible import file. For information on converting the export file, go to Oracle Support and navigate to the white paper "How to Migrate Metadata from EPMA to DRM Application (Doc ID 2626317.1)". This white paper also contains a link to a conversion utility that you can use to convert your export file to a file that's compatible with Data Relationship Management.

For information on how to create imports for Data Relationship Management, see Working with Imports.

# Preparing Public Sector Planning and Budgeting Applications for Upgrading

To prepare Oracle Hyperion Public Sector Planning and Budgeting applications for upgrading, use the same method as for classic Oracle Hyperion Planning applications. See Preparing Classic Planning Applications for Upgrading.

> **Note:**
>
> You can't upgrade Public Sector Planning and Budgeting applications with Decision Packages or Budget Requests enabled.

# Preparing Profitability and Cost Management Artifacts for Upgrading

**Related Topics**

- Preparing Standard Profitability and Detailed Profitability Applications for Upgrading
- Preparing Management Ledger Applications for Upgrading

## Preparing Standard Profitability and Detailed Profitability Applications for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Standard Profitability and Detailed Profitability application artifacts from Release 11.1.2.4.xxx.

To export artifacts from Oracle Hyperion Profitability and Cost Management Release 11.1.2.4.xxx:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand the application group that includes your Profitability applications, and then select the application to export.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `profitability_application_name_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
   The **Download** option is available only if the folder size is less than or equal to 2 GB. If the Profitability ZIP file is larger than 2GB, use an alternate method to access the file. For example, use a method such as FTP to transfer the folder to a location accessible to the Release 11.2 environment. By default, the exported folder is stored in *EPM_ORACLE_INSTANCE*`\import_export`.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.
10. Repeat these steps for each Profitability and Cost Management application.
11. After performing these steps, see Exporting Profitability and Cost Management Standard and Detailed Application Metadata from Performance Management Architect.

## Exporting Profitability and Cost Management Standard and Detailed Application Metadata from Performance Management Architect

### Export Metadata

To export 11.1.2.4 Oracle Hyperion Profitability and Cost Management application metadata:

1. Launch the EPMA File Generator Utility by selecting **Start**, **Oracle EPM Systems**, **Foundation Services**, **Performance Management Architect**, and then **Start File Generator**.

   The file generator is installed with Oracle Hyperion EPM Architect by default to:

   ```
   <Local
   Drive>:\Oracle\Middleware\EPMSystem11R1\products\Foundation\BPMA\EPMAFileGener
   ator\bin
   ```

2. Click **From EPMA Application**.
3. Enter the following information:
   - User name and password for the EPMA administrator
   - URL for EPMA Web Server
   - Name of the EPMA application
   - EPMA import file
4. Click **Execute**.

### Convert Export Files

Convert the export file to an Oracle Data Relationship Management compatible import file. For information on converting the export file, go to Oracle Support and navigate to the white paper "How to Migrate Metadata from EPMA to DRM Application (Doc ID 2626317.1)". This white paper also contains a link to a conversion utility that you can use to convert your export file to a file that's compatible with Data Relationship Management.

For information on how to create imports for Data Relationship Management, see Working with Imports.

## Preparing Management Ledger Applications for Upgrading

Use the Export Template option to export Management Ledger artifacts from Release 11.1.2.4.xxx.

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.1.2.4 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.
3. Select the application you want to upgrade, and from the **Actions** menu, select **Export Template**.
4. In **Export Template**, make the following selections and then click **OK**.
   - Enter an export file name. File names should not include special characters.
   - Select **Include Input Data**.
   - Select the POVs that you want to migrate.

5. Log in to the server hosting Oracle Hyperion Shared Services, look for the ZIP file in the LCM import export location (by default, *epm_oracle_instance*\import_export) and copy it to a location accessible to the Release 11.2 environment.

# Preparing Financial Management Applications for Upgrading (Windows Only)

To upgrade Oracle Hyperion Financial Management, have your database administrator export the Financial Management database and restore it to the new database server or schema in the Release 11.2 environment.

To prepare applications from Financial Management Release 11.1.2.4.xxx:

1. Shut down Financial Management services, including the xfm process.
2. Locate the Financial Management Release 11.1.2.4.xxx database or schema.
3. Export the Financial Management database or schema. For Oracle Database, for example, you can export the schema using Oracle DataPump.
4. Optionally, for Oracle Hyperion EPM Architect-based Financial Management applications, if you want to manage your metadata in Oracle Data Relationship Management in Release 11.2, see Exporting Financial Management Metadata from Performance Management Architect.

# Exporting Financial Management Metadata from Performance Management Architect

### Export Metadata

To export 11.1.2.4 Oracle Hyperion Financial Management application metadata:

1. Launch the EPMA File Generator Utility by selecting **Start**, **Oracle EPM Systems**, **Foundation Services**, **Performance Management Architect**, and then **Start File Generator**.

   The file generator is installed with Oracle Hyperion EPM Architect by default to:

   ```
   <Local
   Drive>:\Oracle\Middleware\EPMSystem11R1\products\Foundation\BPMA\EPMAFileGener
   ator\bin
   ```

2. Click **From HFM Application**.
3. Enter the following information:
   - User name and password for the EPMA administrator
   - URL for EPMA Web Server
   - Name of the EPMA application
   - EPMA import file
4. Click **Execute**.

### Convert Export File

Convert the export file to an Oracle Data Relationship Management compatible import file. For information on converting the export file, go to Oracle Support and navigate to the white paper "How to Migrate Metadata from EPMA to DRM Application (Doc ID 2626317.1)". This white paper also contains a link to a conversion utility that you can use to convert your export file to a file that's compatible with Data Relationship Management.

For information on how to create imports for Data Relationship Management, see Working with Imports.

## Preparing Tax Provision Applications for Upgrading (Windows Only)

Oracle Hyperion Tax Provision schema and applications are upgraded with Oracle Hyperion Financial Management.

See Preparing Financial Management Applications for Upgrading (Windows Only).

## Preparing Financial Reporting Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export the document repository or artifacts.

The steps vary slightly depending on whether you were working in Oracle Hyperion Financial Reporting Release 11.1.2.4.900 (Document Repository) or Oracle Hyperion Reporting and Analysis Release 11.1.2.4 and Release 11.1.2.4.700.

> **Note:**
>
> Hyperion BI Plus is no longer available, and features such as Financial Reporting reports with Oracle Essbase as a data source are no longer supported. You can't migrate Release 11.1.2.4 reports that used Essbase as a data source to Release 11.2. In Release 11.2, Financial Reporting, which is now a component of Hyperion Financial Applications, continues to support connections to Oracle Hyperion Planning data sources using an Essbase connection, as well as Oracle Hyperion Profitability and Cost Management.

**Preparing the Financial Reporting Document Repository (Release 11.1.2.4.900)**

Before you begin, delete objects that are no longer required.

To export the artifacts from the Document Repository:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node and then select **Document Repository**.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, enter the **File System Folder** where the artifacts will be exported, and then click **Export**.
   Specify a meaningful name, such as `financial_reporting_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the Financial Reporting folder, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.

**Preparing Reporting and Analysis Artifacts (Release 11.1.2.4 or Release 11.1.2.4.700)**

Before you begin, delete objects that are no longer required.

To export the Reporting and Analysis artifacts:

1. Log in to EPM Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand **Reporting and Analysis** and then select **Reporting and Analysis**.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, enter the **File System Folder** where the artifacts will be exported, and then click **Export**.
   Specify a meaningful name, such as `financial_reporting_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.

# Preparing Financial Close Management Artifacts for Upgrading

To upgrade Oracle Hyperion Financial Close Management, export the schema from Release 11.1.2.4_253+ and import it in the Release 11.2 environment (for Oracle Database), or copy the Release 11.1.2.4_253+ database to the Release 11.2 database server (for SQL Server). Perform these steps later in the upgrade process, after you install and configure Release 11.2.

# Preparing FDMEE Artifacts for Upgrading

To upgrade Oracle Hyperion Financial Data Quality Management, Enterprise Edition, export the artifacts and the schema from Release 11.1.2.4.xxx, and then import them into Release 11.2.

Note that exporting the schema must be performed after installing and configuring Release 11.2, because it requires a utility that is installed with Release 11.2. Procedures for this task are covered later in the upgrade process.

To export FDMEE artifacts from Release 11.1.2.4:

1. Delete any data and log files in the `outbox` and `outbox/logs` directories that you won't need in the Release 11.2 environment.
2. Copy the entire Application Root Folder directory from the Release 11.1.2.4 environment to a location accessible to the Release 11.2 Environment.
   The Application Root Folder is the storage location for the inbox, outbox, and logs for each FDMEE application

> **Note:**
>
> To find the Application Root Folder directory, in Oracle Hyperion Enterprise Performance Management Workspace, click **Navigate**, then **Administer**, and then **Data Management**. Click the **Setup** tab, and then click **System Settings**. Note the directory specified in **Application Root Folder**.

3. If you have multiple applications with different Application Root Folders, copy those folders as well.

## Preparing Calculation Manager Artifacts for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Oracle Hyperion Calculation Manager artifacts from Release 11.1.2.4.xxx.

To export artifacts from Calculation Manager Release 11.1.2.4.xxx:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand **Foundation**, and then click **Calculation Manager**.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `calculation_manager_11.1.2.4`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2 environment.

# Downloading and Preparing Files for Installation

Download files for Release 11.2 and extract the zip file contents. See Downloading Files for Installation.

When you are done with this step, return to the Upgrading Checklist.

# Installing EPM System Products for an Upgrade

Install Oracle Enterprise Performance Management System products to a new environment using EPM System Installer, as described in Installing EPM System Products in a New Deployment.

Note the following about installing EPM System products in an upgrade:

- You must install Release 11.2 on a new machine.

- For each machine, install all the products that you plan to host on that machine at one time. For additional requirements for a distributed installation, see Installing EPM System Products in a Distributed Environment.

When you are done with this step, return to the Upgrading Checklist.

# Restoring the Financial Management Schema

Before configuring Oracle Hyperion Financial Management, restore the schema or database that you exported from Release 11.1.2.4.xxx to the schema or database that you created for use with Release 11.2. See your database documentation for details.

When you are done with this step, return to the Upgrading Checklist.

# Configuring EPM System Products for an Upgrade

After you install, use EPM System Configurator to configure Oracle Enterprise Performance Management System products. Note the following special requirements to consider during configuration.

**Configuring Financial Management**

Before configuring Oracle Hyperion Financial Management, ensure that you've restored the schema or database that you exported from Release 11.1.2.4.xxx to the schema or database that you created for use with Release 11.2.

During Financial Management configuration, note the following:

- Select all Financial Management configuration options, including **Upgrade Applications**.
- During Financial Management database configuration, specify the database that you restored for use in the Release 11.2 environment and then select **Reuse the existing database**.

When you are done with this step, return to the Upgrading Checklist.

# Starting EPM System Services

Start Oracle Enterprise Performance Management System services before you proceed. See Starting and Stopping EPM System Products.

When you are done with this step, return to the Upgrading Checklist.

# Validating the Installation

Use Oracle Hyperion Enterprise Performance Management System Diagnostics to validate the installation. See Validating the Installation and Verifying Deployment.

For Oracle Hyperion Financial Close Management, use the Financial Close Management Validation Tool. See Validating a Financial Close Management Deployment.

When you are done with this step, return to the Upgrading Checklist.

# Importing Artifacts and Data for Release 11.2

Use the steps in the following sections to import artifacts and data that you exported from Release 11.1.2.4.

Note the required sequence:

1. Users and groups.
2. Applications and data.
3. Oracle Hyperion Calculation Manager artifacts.
4. Provisioning information and taskflows.

Most products use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import artifacts and data to the Release 11.2 environment. To prepare for using Lifecycle Management to import artifacts and data:

- For LCM files that were too large to download in Release 11.1.2.4, use a method such as FTP to transfer the files to the Lifecycle Management Release 11.2 **LCM Export Import Location** that you defined during configuration.
- Specify migration options in the Release 11.2 environment. See "Setting Migration Options" in Oracle® Enterprise Performance Management System Lifecycle Management Guide.

For details about using Lifecycle Management, see Oracle® Enterprise Performance Management System Lifecycle Management Guide

## Importing Foundation Services Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import users and groups from Oracle Hyperion Foundation Services Release 11.1.2.4.xxx to Release 11.2.

To import Foundation Services users and groups to Release 11.2:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Foundation Services users and groups ZIP file.
5. In **File System**, right-click the uploaded file and select **Import**.
6. Click **OK** when you are prompted to proceed with the import.

After importing artifacts, review the Migration Status Report to validate the import.

You import provisioning information and taskflows later in the upgrade process, after you've imported applications from Release 11.1.2.4.

## Importing Essbase Applications

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import Oracle Essbase applications from Release 11.1.2.4.xxx to Release 11.2.

To import Essbase applications to Release 11.2:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Essbase ZIP file.
   Skip this step for large files that you copied using another method.
5. In **File System**, right-click the uploaded file and select **Import**.
6. Click **OK** when you are prompted to proceed with the import.
7. After importing artifacts, review the Migration Status Report to validate the import.
8. Repeat these steps for each application.

## Importing Planning Applications

Set up a new data source, and then use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import Oracle Hyperion Planning applications (metadata, data, and other artifacts) from Release 11.1.2.4.xxx to Release 11.2.

To import Planning applications to Release 11.2:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Planning Administration**.
3. Click **Manage Data Source**.
4. Click **Create Data Source**  , enter the data source name, description, and data source information for the application database and the Oracle Essbase Server, and then click **Save**. The data source name must match the data source name in the Release 11.1.2.4 application.

   > **Tip:**
   >
   > Click **Validate** under **Application Database** to validate the database connection.
   > Click **Validate** under **Essbase Server** to validate the Essbase Server connection.

5. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
6. Expand the **File System** node.
7. Right-click **File System**, select **Upload**, and then navigate to the location of the LCM export file that you exported from the Planning Release 11.1.2.4 application.
   Skip this step for large files that you copied using another method.
8. In **File System**, expand the uploaded file, select the application, click **Select All**, select the application to import to, and then click **Import**.
   The application is created if it doesn't exist.

   If you get any errors related to application security:

   a. Import provisioning. See Importing Provisioning and Taskflows.

b. Re-import application security using Lifecycle Management.

9. After importing artifacts, review the Migration Status Report to validate the import.
10. Repeat these steps for each application.

# Importing Public Sector Planning and Budgeting Applications

To import Oracle Hyperion Public Sector Planning and Budgeting applications, use the same method as for classic Oracle Hyperion Planning applications. See Importing Planning Applications.

# Importing Profitability and Cost Management Artifacts

**Related Topics**

- Importing Standard Profitability and Detailed Profitability Applications
- Importing Management Ledger Applications

## Importing Standard Profitability and Detailed Profitability Applications

Use this method to import Oracle Hyperion Profitability and Cost Management artifacts from Release 11.1.2.4 to Release 11.2 for Standard Profitability and Detailed Profitability applications.

1. Create a new, empty Profitability and Cost Management application.
   a. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
   b. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.
   c. Create a new application (from the **Actions** menu, select **New**) with these attributes, and then click **Next**.
      - **Application Name**—use the same name you used in Release 11.1.2.4
      - **Essbase Application Server**—select the Essbase cluster to connect to
      - **Shared Services Project**— Default Application Group
      - **Application Type**—Standard Profitability or Detailed Profitability
      - **Dimension Source**—Native
   d. Enter the dimension names from the Release 11.1.2.4 application for these attributes, and then click **Finish**.
      - **Measure Dimension Name**
      - **Allocation Type Dimension Name** (Standard only)
2. Export metadata from Oracle Data Relationship Management and import it to Profitability and Cost Management. See Exporting from Data Relationship Management and Importing to EPM Applications.
   When importing the dimension metadata into Profitability and Cost Management, update dimensions one at a time, using the dimension flat files that you exported from Data Relationship Management. Perform this step for all dimensions except for the **Measures** dimension and the **Allocation Type** dimension (Standard only).

   **Measures** and **AllocType** are system dimensions that are auto populated with members when you create the application.

Note that for Standard applications, if you have created user-defined members in the **Measures** dimension, you should also import the **Measures** dimension.

a. From the **Actions** menu, select **Update Dimensions**.

b. Browse to select the file that contains the dimension members to import, and then click **OK**.

3. Validate and enable the application.

a. From the **Actions** menu, click **Validate and Enable**.

b. Click the **Job Library**  tab and validate that the **Validate and Enable** job completed successfully.

c. Click the **Applications**  tab and confirm that the application has a green check mark in the **Enabled** column.

4. Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import the Profitability and Cost Management artifacts from Release 11.1.2.4.xxx to Release 11.2:

a. Log in to EPM Workspace in the Release 11.2 environment.

b. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.

c. Expand the **File System** node.

d. Right-click the **File System** node, select **Upload**, and then navigate to the location of the LCM export file that you exported from the Profitability and Cost Management Release 11.1.2.4 application. For large files that you copied using FTP,

e. In **File System**, select the uploaded file to expand it, click **Select All**, and then click **Import**.

f. Click **OK** when you are prompted to proceed with the import.

5. Deploy the Profitability and Cost Management dimensions to Oracle Essbase. See *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

6. Load input data. See *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

7. Repeat these steps for each application.

## Importing Management Ledger Applications

Use this method to import Oracle Hyperion Profitability and Cost Management artifacts from Release 11.1.2.4 to Release 11.2 for Management Ledger applications.

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.

2. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.

3. From the **Actions** menu, select **Import Template**, navigate to the template that you exported from Release 11.1.2.4, and then click **Next**.

4. Enter an application name, and then click **Finish**.

5. Check the **Job Library** to confirm that the **Import Template** job finished successfully.

6. From the **Applications** vertical tab, confirm that the application is there (you might need to refresh) and that it is marked as **Enabled**.

The **Import Template** action creates the application, imports the dimension metadata, imports the application artifacts, creates the Oracle Essbase cube and deploys the metadata to it, and imports the data.

# Importing Financial Reporting Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import the Oracle Hyperion Financial Reporting Document Repository (Release 11.1.2.4.900) or Oracle Hyperion Reporting and Analysis artifacts (Release 11.1.2.4 and Release 11.1.2.4.700.

The steps vary slightly depending on whether you were working in Financial Reporting Document Repository (Release 11.1.2.4.900) or Reporting and Analysis (Release 11.1.2.4 and Release 11.1.2.4.700).

### Importing the Financial Reporting Document Repository (Release 11.1.2.4.900)

Use Lifecycle Management to import the document repository from Financial Reporting Release 11.1.2.4.900 to Release 11.2.

To import the document repository to Release 11.2:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the LCM export file that you exported from Financial Reporting Release 11.1.2.4.
5. In **File System**, expand the uploaded file, click **DOCREP**, then **Select All**, and then click **Import**.
6. Click **OK** when you are prompted to proceed with the import.

### Importing Reporting and Analysis Artifacts (Release 11.1.2.4 or Release 11.1.2.4.700)

Use Lifecycle Management to import the Reporting and Analysis artifacts from Release 11.1.2.4.900 to Release 11.2.

To import the Reporting and Analysis artifacts to Release 11.2:

1. Log in to EPM Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the LCM export file that you exported from Reporting and Analysis Release 11.1.2.4.
5. In **File System**, expand the uploaded file, select **RnA-Reporting and Analysis**, click **Select All**, and then click **Import**.
6. Click **OK** when you are prompted to proceed with the import. Wait for **Completed** status.
7. Click the **Explore** tab.
8. From the **Tools** menu, select **Database Connection Manager**.

9. Select the database connection to edit, click **Edit**, click the database connection to edit, enter the database connection details, and then click **OK**. Repeat to update all database connections.

# Migrating Financial Close Management Artifacts

Have your database administrator perform these tasks.

1. Perform tasks in the source environment. Tasks in the Release 11.1.2.4_253+ Source Environment.
2. Perform tasks in the target environment. See Tasks in the Release 11.2 Target Environment.

## Tasks in the Release 11.1.2.4_253+ Source Environment

**Perform these tasks in the Release 11.1.2.4_253+ source environment:**

1. Shut down all Oracle Enterprise Performance Management System services.
2. Export (Oracle) or copy (SQL Server) the Release 11.1.2.4_253+ database schema.
   - For Oracle Database, export the Release 11.1.2.4_253+ database schemas for Oracle Hyperion Financial Close Management using Oracle Data Pump.

     ```
     expdp <user>/<password> DIRECTORY=data_pump_dir dumpfile=<user.dmp>
     logfile=exp_user.log
     ```

     For example:

     ```
     expdp <fcm_source>/<password> DIRECTORY=data_pump_dir
     dumpfile=<fcm_source.dmp> logfile=exp_user.log
     ```

   - For SQL Server, see Copying the Financial Close Management Schema (SQL Server).
3. For Oracle Database, copy the schema dump file(s) `fcm_source.dmp` to a location accessible to the Release 11.2 environment.
4. Restart EPM System Release 11.1.2.4_253+ services.

Note that task flows are exported with the Oracle Hyperion Foundation Services artifacts.

## Copying the Financial Close Management Schema (SQL Server)

Perform the following steps on the Release 11.2 SQL Server environment to make a copy of the Oracle Hyperion Financial Close Management Release 11.1.2.4_253+ schema on the Release 11.2 database environment..

1. Launch SQL Server Management Studio.
2. Right-click the Financial Close Management source database and select **Tasks** and then select **Copy Database**.

   Create a SQL Server connection to the source database if it's not already created in SQL Server Management Studio.
3. In the **Copy Database Wizard**, click **Next** on the Welcome screen.

4. In **Select a Source Server**, for **Source Server**, enter the name of the source database server, use SQL Server Authentication, enter your sysadmin user name and password, and then click **Next**.
5. In **Select a Destination Server**, for **Destination Server**, enter the name of the destination database server, use SQL Server Authentication, enter your sysadmin user name and password, and then click **Next**.
6. In **Select the Transfer Method**, select **Use the SQL Management Object method** and then click **Next**.
7. In **Select Database**, select the Financial Close Management source database and then click Next.
8. In **Configure Destination Database**, enter a name for the destination database, such as `fcm_target`, and then click **Next**.
9. In **Select Server Objects**, keep the default selections and then click **Next**.
10. In **Configure the Package**, enter a name, such as `fcm_source_to_fcm_target`, and then click **Next**.
11. In **Schedule the Package**, click **Next** to run immediately.
12. Click **Finish** to run the wizard.
    When the wizard completes, there is a copy of the source database with the name you provided, such as `fcm_target` , on the destination database server.
13. Shut down Oracle Enterprise Performance Management System servers and then execute the following database change in `fcm_target`:

    ```
    DELETE FROM PS_TXN
    ```

14. Restart EPM System servers.

## Tasks in the Release 11.2 Target Environment

**Perform these tasks in the Release 11.2 target environment.**

1. For Oracle Database: Import the source database you exported from Release 11.1.2.4_253+ (`fcm_source`) to be used with the Release 11.2 environment. Use Oracle Data Pump with the REMAP command to import to a different schema (for example, `fcm_target`).

   ```
   impdp <user>/<password> DIRECTORY=data_pump_dir
   dumpfile=<DatabaseDumpFile.dmp> logfile=import.log
   REMAP_SCHEMA=<user>:<user1>
   ```

   For example:

   ```
   impdp <fcm_source>/<password> DIRECTORY=data_pump_dir
   dumpfile=<fcm_source.dmp> logfile=import.log
   REMAP_SCHEMA=<fcm_source>:<fcm_target>
   ```

2. Oracle Database and SQL Server: Stop Oracle Enterprise Performance Management System services.
3. Oracle Database and SQL Server: Run EPM System Configurator again and select the **Configure Database** and **Deploy to Application Server** tasks for Oracle Hyperion Financial Close Management. If you are using Oracle Hyperion Tax Governance, also

select the **Configure Database** and **Deploy to Application Server** tasks for **Tax Management**.
During database configuration, enter details for the Release 11.2 database that you just imported (for example, `fcm_target`) to be used with Release 11.2, and when prompted, select **Reuse the existing database**. (You are prompted for each product you are configuring.)

On the **Deploy to Application Server** page, select **FinancialClose**, **AccountReconciliation**, and **SDM**. If you are using Tax Governance, select **TaxOperation** and **TSS**. If you are using Tax Provision, select **TaxProvisioning**.

4. Oracle Database and SQL Server: Import WebLogic users from the Release 11.1.2.4_253+ environment to the Release 11.2 environment.
5. Oracle Database and SQL Server: Restart all EPM System servers and run Oracle Hyperion Enterprise Performance Management System Diagnostics.

# Importing FDMEE Artifacts

Have your database administrator perform these tasks.

To upgrade Oracle Hyperion Financial Data Quality Management, Enterprise Edition, import the schema and artifacts from Release 11.1.2.4.xxx to Release 11.2.

FDMEE Release 11.2 includes utilities, `aif_export.par` (Oracle Database) and `aif_migrate.dtsx` (SQL Server) to export or migrate data from Release 11.1.2.4. The instructions for this step are included in this topic because you must perform the steps after you install and configure Release 11.2.

## Preparing the Data Export/Import and Migration Utilities

When you installed Oracle Hyperion Financial Data Quality Management, Enterprise Edition Release 11.2, utilities were installed in `\`*`EPM_ORACLE_HOME`*`\products\FinancialDataQuality\database\migrate\Oracle` (for Oracle database) and *`EPM_ORACLE_HOME`*`\products\FinancialDataQuality\database\migrate\SQLServer` (for SQL Server).

To prepare the utilities, in the Release 11.2 environment, copy files:

- For Oracle Database:
  1. Copy `aif_export.par` from the Release 11.2 environment to a location accessible to the Oracle Data Pump location on the database server in the Release 11.1.2.4 environment.
  2. Copy `aif_import.par` to a location accessible to the Oracle Data Pump location on the database server in the Release 11.2 environment.
- For SQL Server, copy `aif_migrate.dtsx` to the server where SQL Server Management Studio is installed.
- For both Oracle Database and SQL Server, copy `aif_post_import_updates.sql` to your Release 11.2 database environment.

# Migrating the FDMEE Schema (Oracle Database)

### Exporting the FDMEE Schema from Release 11.1.2.4 (Oracle Database)

Oracle Hyperion Financial Data Quality Management, Enterprise Edition Release 11.2 includes a utility —`aif_export.par`—to export data from the Release 11.1.2.4 environment.

To export the FDMEE schema from Release 11.1.2.4:

1. In the Release 11.1.2.4 environment, execute the Data Pump command from the Oracle Data Pump location on the database server to export the data. For example:

   ```
   expdp  parfile=<DIR PATH>/aif_export.par
   ```

   Enter user credentials for the FDMEE schema.

   Export produces the export data file in the default Data Pump output directory (`\Oracle\admin\orcl\dpdump`). The export filename is `aif_objects.dmp`.

2. Copy `aif_objects.dmp` to a location accessible to the Oracle Data Pump location on the database server in the Release 11.2 environment.

See the *Oracle Database Utilities* guide on the Oracle Help Center to familiarize yourself with the Oracle Data Pump Utility.

### Importing the FDMEE Schema to Release 11.2 (Oracle Database)

FDMEE Release 11.2 includes a utility—`aif_import.par`—to import metadata and data from the `aif_objects.dmp` file that you exported from Release 11.1.2.4. Use Oracle Data Pump to import the Release 11.1.2.4 schema into the Release 11.2 schema.

To import the FDMEE schema to Release 11.2:

1. Execute the following command from the Oracle Data Pump location on the Release 11.2 database server to import the data:

   ```
   impdp  remap_schema=<SOURCE SCHEMA NAME>:<TARGET SCHEMA NAME>
   parfile=aif_import.par
   ```

   where `<SOURCE SCHEMA NAME>` is the name of the Release 11.1.2.4 schema.

   where `<TARGET SCHEMA NAME>` is the name of the Release 11.2 schema.

   `aif_import.par` imports the metadata and data from `aif_objects.dmp` to the new schema.

   You can ignore "ORA-31684: Object type INDEX XXXX already exists" error.

2. After the import process is complete, execute the following SQL in the Release 11.2 database server environment to complete the database configuration. Log in as the user who owns the FDMEE tables for release 11.2:

   ```
   aif_post_import_updates.sql
   ```

# Migrating the FDMEE Schema (SQL Server)

The data migration process for Oracle Hyperion Financial Data Quality Management, Enterprise Edition uses SQL Server Integration Services (SSIS) to perform the migration. Review SQL Server documentation and familiarize yourself with the SSIS package.

This procedure requires a network connection between the Release 11.1.2.4.xxx environment and the Release 11.2 environment.

To migrate the FDMEE Schema (SQL Server):

1. Stop the FDMEE service.
2. Update the SSIS package with connection information, and then save the file:
   a. Open `aif_migrate.dtsx` using a text editor.
   b. Edit line numbers 27 and 31 to specify the database connection string for the destination database (the FDMEE Release 11.2 database):
      - **Data Source**—Specify the *serverName:port*. If you encounter connection errors, try entering *serverName* only, without the port.
      - **User ID**—Specify the SQL Server user used to configure the FDMEE Release 11.2 database.
      - **Initial Catalog**—Specify the name of the database used to configure FDMEE Release 11.2.
      - **desstination_password**—Specify the password (case-sensitive) in line number 31, by replacing **password** with the destination database password.
   c. Edit line numbers 42 and 46 to specify the database connection string for the source database (the FDMEE Release 11.1.2.4 database):
      - **Data Source**—Specify the *serverName:port*.
      - **User ID**—Specify the SQL Server user used to configure the FDMEE Release 11.1.2.4 database.
      - **Initial Catalog**—Specify the name of the database used to configure FDMEE Release 11.1.2.4.
      - **source_password**—Specify the password (case-sensitive) in line number 46, by replacing **password** with the source database password.
3. Execute the SSIS Data Migration Package.

   The default location is `<Local Drive>:\Program Files (x86)\Microsoft SQL Server Management Studio 18\Common7\IDE\CommonExtensions\Microsoft\SSIS\150\Binn`

   a. Launch `DTExecUI.exe`.
   b. For**Package source**, select **File System**. For **Package**, browse to and select `aif_migrate.dtsx`.
   c. Click **Execute**.
   d. Review the Package Execution Process to ensure that there are no errors.

4. After the import process is complete, execute the following SQL in the Release 11.2 database server environment to complete the database configuration. Log in as the user who owns the FDMEE tables for release 11.2

   `aif_post_import_updates.sql`

   To execute the query, open SQL Server Management Studio, right-click the FDMEE 11.2 database, select **New Query**, copy the contents of `aif_post_import_updates.sql`, and then click **Execute**.

5. Check for any errors. Fix any issues in the source and repeat steps 3 and 4 in sequence as needed.

   You can ignore errors related to dropping tables with the suffix `_UPG` in the name.

## Importing FDMEE Artifacts to Release 11.2

To import Oracle Hyperion Financial Data Quality Management, Enterprise Edition artifacts to Release 11.2:

1. Update the Application Root Folder Settings: In Oracle Hyperion Enterprise Performance Management Workspace, click **Navigate**, then **Administer**, and then **Data Management**. Click the **Setup** tab, and then click **System Settings**. Update the directory specified in **Application Root Folder** to indicate the location for Release 11.2.
2. Copy the data that you exported from Release 11.1.2.4 to the new Application Root Folder directory in Release 11.2.
3. If you have multiple applications with different Application Root Folders, copy those folders as well.
4. If you are migrating from Solaris to Windows, when copying the log files from the Solaris environment, the different operating systems handle the end of line character differently. To resolve this issue, open the log files and resave them on the Windows server.

## Additional Manual Steps for FDMEE

1. If you are importing data from a flat file, create the FDMEE folder using System Settings and copy the `FlatFile.txt` used for import.
2. Point the ODI settings to the new source server settings.
   For example, ensure that the ARM database is properly targeted: Navigate to ODI Console `http://<server_name>:19000/odiconsole`. Expand **Topology**, **Physical Architecture**, **Technologies**, **Microsoft SQL Server**, **ARM_DATA_SERVER_MSSQL**, and then click **View**. Make sure the Oracle Hyperion Financial Close Management ARM database name is correct. If not, update with the correct information:
   a. Launch ODI Studio and log in to the Work Repository.
   b. Click the **Topology** tab and expand **Technologies**, then **Microsoft SQL Server**, and then double-click **ARM_DATA_SERVER_MSSQL**.
   c. Update the user and password if needed.
   d. On the **JDBC** Definition tab, update the JDBC URL to use the correct ARM database. For example, update `jdbc:weblogic:sqlserver://serverName:port;databaseName=FCM` to `jdbc:weblogic:sqlserver://serverName:port;databaseName=FCM1125`.

e. Expand and double-click to open the last node, **ARM_DATA_SERVER_MSSQL.<DBNAME>.dbo**.

f. From the **Database (Catalog)** and **Database (Work Catalog)** lists, select the correct ARM schema.

g. You might also need to also set the ARM_TGT logical schema. In ODI Studio, click the **Topology** tab. Expand **Contexts** and double-click **Global**. On the **Global** tab, click **Schemas** and make sure the Logical Schema **ARM_TGT** has the correct Physical Schema, for example, `ARM_DATA_SERVER_MSSQL.FCM1125.dbo`, and then save your changes.

h. Save and restart the Financial Close Management and Oracle Hyperion Financial Data Quality Management, Enterprise Edition Servers

See FDMEE Application Folder Architecture and Setting System-Level Profiles in *Oracle Hyperion Financial Data Quality Management Administrator's Guide* for details.

## Importing Calculation Manager Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import Oracle Hyperion Calculation Manager artifacts from Release 11.1.2.4.xxx to Release 11.2.

To import Calculation Manager artifacts to Release 11.2:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Calculation Manager ZIP file.
5. In **File System**, right-click the uploaded file, click **CALC _ Calculation Manager**, click **Select All**, and then click **Import**.
6. Click **OK** when you are prompted to proceed with the import.
7. After importing artifacts, review the Migration Status Report to validate the import.

## Importing Provisioning and Taskflows

After you've imported applications from Release 11.1.2.4, import provisioning information and taskflows.

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import provisioning information and taskflows from Oracle Hyperion Foundation Services Release 11.1.2.4.xxx to Release 11.2.

To import provisioning information and taskflows to Release 11.2:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Foundation Services provisioning information and taskflows ZIP file.

5. In **File System**, right-click the uploaded file and select **Import**.
6. Click **OK** when you are prompted to proceed with the import.

After importing provisioning, review the following to validate the import:

- Check user provisioning. Expand **User Directories**, then **Native Directory**, select **Users**, then **Shared Services**, then **Provisioning**, and then **Users**.
- Check group provisioning. Expand **User Directories**, then **Native Directory**, and then select **Groups**. Right-click a group, select **Provision**, and review the provisioning.

If you are using an external authentication provider, repeat these steps, this time importing the assigned roles for your provider.

# Importing Performance Management Architect Application Metadata into Data Relationship Management

You'll create a Oracle Data Relationship Management application and use the Data Relationship Management Metadata Migration Utility to load your metadata to theData Relationship Management application where you can manage it. You must first export your metadata from Oracle Hyperion EPM Architect using the EPMA File Generator Utility and convert that file to an XML file that can be used to import the metadata to the Data Relationship Management application.

In Data Relationship Management, follow these steps to import your Performance Management Architect application metadata:

| Step | Task | Refer to this documentation |
|---|---|---|
| 1. | 1. Create a Data Relationship Management application to load the import file to.<br>2. Use the Data Relationship Management Metadata Migration Utility to load the appropriate application template, such as the Planning App Template, for the ADS type you exported using the EPMA File Generator Utility.<br>By default, application templates are installed to:<br>`<Local Drive>:\Oracle\Middleware\EPMSystem11R1\products\DataRelationshipManagement\server\apptemplates`<br>3. Modify the Data Relationship Management configuration as necessary to align available properties in the file with the Import specification created by the application template.<br>Create additional properties in Data Relationship Management as needed for your implementation. | • Creating an Application<br>• Migrating Data Relationship Management Metadata - Follow the instructions in "Loading Metadata"<br>• Managing Property Definitions |
| 2. | Import the converted file into your Data Relationship Management application. | Working with Imports |
| 3. | Manage your metadata. | Getting Started |

# Exporting from Data Relationship Management and Importing to EPM Applications

Follow these steps to export your application metadata from Oracle Data Relationship Management and import it into your EPM application.

| Step | Task | Refer to this documentation |
|---|---|---|
| 1. | **In Data Relationship Management**: Export the application metadata to a file using the export specification created by the application template. | Working with Exports |

| Step | Task | Refer to this documentation |
|---|---|---|
| 2. | **In your EPM application**: Import the metadata to your application. For example, for Oracle Hyperion Planning, you can import it either interactively by dimension or via batch using the Outline Load Utility. | • For Planning, Importing and Exporting Data and Metadata<br>• For Oracle Hyperion Financial Management, Managing Applications<br>• For Oracle Hyperion Profitability and Cost Management, Importing Data into Profitability and Cost Management<br>• For Oracle Essbase, Loading Data and Building Dimensions |

# Validating the Installation

Use Oracle Hyperion Enterprise Performance Management System Diagnostics to validate the installation. See Validating the Installation and Verifying Deployment.

For Oracle Hyperion Financial Close Management, use the Financial Close Management Validation Tool. See Validating a Financial Close Management Deployment.

When you are done with this step, return to the Upgrading Checklist.

# Repeating the Upgrade Process for Applications

The upgrade process in this release is based on deploying a new software release and moving applications, data, and provisioning information from the earlier deployment to the new deployment. This approach allows the upgrade process to be repeatable. You can export artifacts from Oracle Enterprise Performance Management System Release 11.1.2.4.xxx and import them to your Release 11.2 test environment. After testing is completed, you can repeat the export and import steps to your Release 11.2 production environment to get the latest artifacts.

If you are managing metadata in Oracle Data Relationship Management, exporting data from Data Relationship Management and importing it to your EPM System applications is an iterative process and part of maintaining your applications.

# Upgrading EPM System Clients

Depending on the client, if you are upgrading from an earlier release of an Oracle Enterprise Performance Management System client component, you:

- Uninstall the earlier release before you install the new release.
- Install over the earlier release.

Consider installing the client on a different machine in a test environment until you are ready to uninstall or install over the earlier version.

You can upgrade Oracle Smart View for Office in one of several ways:

- Have users install Smart View from Oracle Hyperion Enterprise Performance Management Workspace: from the Tools menu, select **Install**, and then **Smart View**.

- Install Smart View on client machines using the Smart View installer.

Oracle recommends that you uninstall Smart View before installing the latest version.

For more information, see Installing EPM System Clients.

12

# Upgrading EPM System (from 11.2.12+ to 11.2.15) using Out of Place Procedure

**Related Topics**

- About Upgrading
- Upgrading Checklist
- Upgrade Installation Prerequisites
- Preparing Artifacts and Data for Upgrading
- Downloading and Preparing Files for Installation
- Installing EPM System Products for an Upgrade
- Restoring the Financial Management Schema
- Configuring EPM System Products for an Upgrade
- Starting EPM System Services
- Validating the Installation
- Importing Artifacts and Data for Release 11.2.15
- Importing Performance Management Architect Application Metadata into Data Relationship Management
- Exporting from Data Relationship Management and Importing to EPM Applications
- Repeating the Upgrade Process for Applications
- Upgrading EPM System Clients

## About Upgrading

This chapter describes the upgrade process for Oracle Enterprise Performance Management System products.

You can upgrade EPM System products to Release 11.2.15 from Release 11.2.12+. To update your existing applications, you deploy EPM System Release 11.2.15 software on a new machine and migrate EPM System Release 11.2.12+ artifacts (such as applications, metadata, and security) and data to the new deployment.

> **Note:**
>
> You can migrate Essbase applications using the 11g LCM Export Utility (EssbaseLCMUtility.zip). For more information, see Preparing Essbase Applications for Upgrading.

For more information about upgrading clients, see Upgrading EPM System Clients.

For information about EPM System products that are no longer available in Release 11.2.x, see the *Oracle Enterprise Performance Management System Installation and Configuration Readme*.

# Upgrading Checklist

The following table identifies the high-level tasks that you perform to upgrade Oracle Enterprise Performance Management System products. You must perform tasks in this order and you must complete the entire checklist.

The process described in this chapter assumes that you upgrade one product at a time and indicates where a sequence is required.

**Table 12-1 Upgrading Checklist**

| Task | Reference |
|---|---|
| Go through the tasks in the following section once for all EPM System products at one time. | |
| **Preparing to Upgrade** | |
| 1. Review release compatibility, system requirements, and other prerequisites for this release.<br>If your database environment needs to be upgraded, perform the database upgrade before you proceed. See the database documentation for details. | *Oracle Enterprise Performance Management System Certification Matrix* (https://www.oracle.com/middleware/technologies/bi-foundation/hyperion-supported-platforms.html) |
| 2. Prepare the new environment for the new Release 11.2.15 installation.<br>In preparation for a new installation, you can use a worksheet to note the machines on which earlier release products are installed, and the machines on which you plan to install the new release products. You can refer to this information in subsequent procedures.<br>Create new repositories in preparation for migrating or copying data as described in Preparing a Database. | Preparing Your Environment |
| 3. Perform upgrade-specific prerequisite tasks. | Upgrade Installation Prerequisites |
| 4. Prepare artifacts, applications, data, and security information from your Release 11.2.12+ environment for upgrading. You can perform this task for each product in any order. | Preparing Artifacts and Data for Upgrading |
| 5. Download and prepare the installation files. | Downloading Files for Installation |

**Table 12-1 (Cont.) Upgrading Checklist**

| Task | Reference |
|---|---|
| Iterate through the remaining checklist items for each product, one product at a time, in the following order:<br>• Oracle Hyperion Foundation Services<br>• Oracle Essbase Server and all other Essbase products. Note that after configuring other products, you must also configure the web server. After configuration, restart the web Server and Oracle Hyperion Enterprise Performance Management Workspace.<br>• All other EPM System products, in any order. Note that after configuring each product, you must also configure the Web server. After configuration, restart the Web Server and EPM Workspace. | |
| **Installing and Configuring** | |
| 6. Install EPM System Release 11.2.15 products (choosing the **New installation** option) in a new installation location. | Installing EPM System Products for an Upgrade |
| 7. Before configuring Oracle Hyperion Financial Management, restore the schema. | Restoring the Financial Management Schema |
| 8. Configure Release 11.2.15 products, one at a time.<br>You must configure Foundation Services first. Foundation Services must be installed and configured for other products to configure successfully.<br>If you have already configured the web server and you configure any additional products, you must run EPM System Configurator again and select the Foundation Services **Configure Web Server** task. Then, restart the web server and EPM Workspace.<br>**Note:** When you upgrade Financial Management, special steps are required during configuration. | Configuring EPM System Products for an Upgrade |
| 9. Start EPM System services. | Starting and Stopping EPM System Products |
| 10. Using Oracle Hyperion Enterprise Performance Management System Diagnostics, validate the installation. | Validating the Installation and Verifying Deployment |
| 11. Configure any external authentication directories that were used in Release 11.2.12+. | *Oracle Enterprise Performance Management System Security Configuration Guide* |
| 12. Install and configure Oracle Data Relationship Management if you are using it, following the steps for upgrading from Release 11.2.12+. | Data Relationship Management Installation Guide |
| **Import applications, data, security, and other artifacts** | |

**Table 12-1 (Cont.) Upgrading Checklist**

| Task | Reference |
|---|---|
| 13. Import artifacts including applications, data, and security information. Note the required sequence:<br>1. Users and groups.<br>2. Applications and data.<br>3. Oracle Hyperion Calculation Manager artifacts.<br>4. Provisioning information and taskflows.<br>**Note:** Before you perform this step, make sure you have moved the LCM export files that you exported from Release 11.2.12+ to the Oracle Hyperion Enterprise Performance Management System Lifecycle Management Release 11.2.15 **LCM Export Import Location** that you defined during configuration. | Importing Artifacts and Data for Release 11.2 |
| 14. If you are using Data Relationship Management to manage metadata, export metadata from Data Relationship Management and import it to your applications.<br>**Note:** This step is required for Oracle Hyperion Profitability and Cost Management (Standard and Detailed applications). It is also required for Essbase, Oracle Hyperion Planning, and Financial Management if you want to manage metadata in Data Relationship Management. | Exporting from Data Relationship Management and Importing to EPM Applications |
| 16. Perform required manual configuration tasks for Oracle Hyperion Financial Close Management. | Performing Manual Configuration Tasks in a New Deployment |
| 17. Restart EPM System services and re-run EPM System Diagnostics. | Validating the Installation and Verifying Deployment |

# Upgrade Installation Prerequisites

Before you proceed with an upgrade:

- If you are using Windows 2016, see the post configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.
- Back up information from the earlier release including databases, schemas, applications, and other files. See the *Oracle Enterprise Performance Management System Backup and Recovery Guide* for Release 11.2.15.
- Optionally, for Release 11.2.12+, for Oracle Hyperion Financial Management, Oracle Hyperion Financial Close Management, Oracle Hyperion Financial Reporting, and Oracle Hyperion Financial Data Quality Management, Enterprise Edition, review and delete any applications and artifacts that you will not be using in the new environment.
- Remove artifacts for reporting products that are no longer available. See the *Oracle Enterprise Performance Management System Installation and Configuration Readme*.

- Prepare a method for transferring artifacts from the Release 11.2.12+ environment to the Release 11.2.15 environment.
  If the Release 11.2.12+ environment and Release 11.2.15 environment are on the same network, you can export artifacts to a shared drive. If your Release 11.2.12+ environment and Release 11.2.15 environment are not on the same network, export to a location from which you can use a method such as ftp to transfer files to the Release 11.2.15 environment.
- If you configured Financial Close Management or Financial Management with other products in the same EPM System database in Release 11.2.12+, extract database tables and other database objects separately for Financial Close Management and Financial Management. Use these extracts for restoring in the Release 11.2.15 environment.
  For Financial Close Management, extract:
  - Financial Close Management and Tax Governance: FCC%, FCM%, S_ROW_ID%
  - Account Reconciliation Management: ARM%, FCM% and S_ROW_ID
  - Supplemental Data Manager and Tax Supplemental Schedules: SDM%, FCM%, and S_ROW_ID

  For Financial Management, extract primary keys, indexes, and sequences for:
  - System Tables
    - HFM_*
    - HSV_*
    - HSX_*
    - XFM_*
  - Application Tables
    - *_ACCOUNT_*
    - *_ATTACHMENTS
    - *_BINARYFILES
    - *_CELLTXTLBL_*
    - *_CONSMETH
    - *_CONSMETH_*
    - *_CSE_*
    - *_CSN_*
    - *_CURRENCIES
    - *_CURRENCIES_*
    - *_CUSTOM_*
    - *_DATATIMESTAMP
    - *_DATA_AUDIT
    - *_DCE_*
    - *_DCN_*
    - *_DCT_*
    - *_ENTITY_*
    - *_ERPI

- *_ERPI_URL
- *_ETX_*
- *_ICP_*
- *_ICRATE_*
- *_ICTRN_*
- *_ICT_*
- *_JLENT_*
- *_JLTMP
- *_JLTMPENT
- *_JL_*
- *_JPD_*
- *_LID_*
- *_MODULE_CONFIG
- *_PARAMETERS
- *_PFLOW
- *_PFLOWH_*
- *_PFLOW_*
- *_PFLOW_PHASEGROUP
- *_RPTS
- *_RTD_*
- *_RTS_*
- *_RUNNINGTASKS
- *_SCENARIO_*
- *_TASK_AUDIT
- *_TASK_AUDIT_ATT
- *_TXTITEM_*
- *_TXT_*
- *_USERPARAMS
- *_VALUE_*

When you are done with this step, return to the Upgrading Checklist.

# Preparing Artifacts and Data for Upgrading

Use the steps in the following sections to prepare artifacts and data from Release 11.2.12+ for upgrading. Most products use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export artifacts and data in preparation for upgrade. You move application artifacts from one environment to another by downloading the artifacts from the File System node in Shared Services Console. When you download Lifecycle Management artifacts, they are saved in a ZIP file. You can then upload the ZIP file containing the artifacts to the Release 11.2.15 environment.

> **Note:**
>
> The Lifecycle Management **Download** option is available only if the file system folder is a ZIP file on the server. The file system folder is zipped by Lifecycle Management during the export operation only if the folder size is less than or equal to 2 GB. For content greater than 2 GB, you must use a mechanism such as FTP to move the content from one environment to another. Copy the artifacts from the **LCM Export Import Location** you defined during Release 11.2.12+ configuration to a location accessible to the Release 11.2.15 environment.

For details about using Lifecycle Management, see Oracle® Enterprise Performance Management System Lifecycle Management Guide

If the Release 11.2.12+ environment and Release 11.2.15 environment are on the same network, you can export artifacts to a shared drive. If your Release 11.2.12+ environment and Release 11.2.15 environment are not on the same network, export to a location from which you can use a method such as FTP to transfer files to the Release 11.2.15 environment.

# Preparing Foundation Services Artifacts for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export users, groups, provisioning information, and taskflows from Oracle Hyperion Foundation Services Release 11.2.12+.

> **Note:**
>
> You must export users and groups separately from provisioning information and taskflows.

To export artifacts from Foundation Services Release 11.2.12+:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand the **Foundation** application group, and then select **Shared Services**.
4. Expand **Native Directory** and then click **Users** and **Groups**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `shared_services_users_groups_11.2.12`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the Shared Services folder you created, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2.15 environment.

10. Repeat these steps, this time exporting provisioning information and taskflows: Expand **Native Directory** and then select **Assigned Roles** and **Roles**, and then select **Taskflows**. In the **Export** dialog box, in **File System Folder**, enter a meaningful name for the artifacts to be exported, such as `shared_services_provisioning_task_flows_11.2.12`.
11. If you are using an external authentication provider, repeat these steps, this time exporting assigned roles for your provider. In **Foundation**, **Shared Services**, expand *external authentication provider*, select **Assigned Roles**, and then click **Export**. Specify a meaningful name such as`external provider_provisioning 11212`.

# Preparing Planning Applications for Upgrading

The steps for preparing Oracle Hyperion Planning applications for upgrading depend on the application type:

For Classic Planning applications, see Preparing Classic Planning Applications for Upgrading.

In addition, make a note of the data source name for each application. You'll need it later in the upgrade process. (In Oracle Hyperion Enterprise Performance Management Workspace, select **Navigate**, then **Administer**, and then **Planning Administration**. Then, click **Manage Data Source** .)

## Preparing Classic Planning Applications for Upgrading

To prepare Classic Oracle Hyperion Planning applications for upgrading, export applications using Oracle Hyperion Enterprise Performance Management System Lifecycle Management. See Exporting Planning Applications Using Lifecycle Management.

### Exporting Planning Applications Using Lifecycle Management

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Oracle Hyperion Planning applications (metadata, data, and other artifacts) from Release 11.2.12+.

Before exporting, refresh the cube for the Planning Release 11.2.12+ application. The cube refresh must be successful before continuing. See the *Oracle Hyperion Planning Administrator's Guide* for details on refreshing the cube.

To export Planning applications from Release 11.2.12+:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand the application group that includes your Planning applications, and then select the application to export.
4. Click **Select All**.

> **Tip:**
>
> For large applications, consider exporting Essbase Data separately from the metadata (all the other options).

5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.

Specify a meaningful name, such as `planning_application_name_11.2.12`.

Check the status column and wait for **Completed** status.

7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
The **Download** option is available only if the folder size is less than or equal to 2 GB. If the Planning ZIP file is larger than 2GB, use an alternate method to access the file. For example, use a method such as FTP to transfer the folder to a location accessible to the Release 11.2.15 environment. By default, the exported folder is stored in *EPM_ORACLE_INSTANCE*`\import_export`.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2.15 environment.
10. Repeat these steps for each application.

# Preparing Public Sector Planning and Budgeting Applications for Upgrading

To prepare Oracle Hyperion Public Sector Planning and Budgeting applications for upgrading, use the same method as for classic Oracle Hyperion Planning applications. See Preparing Classic Planning Applications for Upgrading.

> **Note:**
>
> You can't upgrade Public Sector Planning and Budgeting applications with Decision Packages or Budget Requests enabled.

# Preparing Essbase Applications for Upgrading

Use the Essbase 11g LCM Export Utility to export Oracle Essbase applications (metadata and data) from Release 11.2.12+.

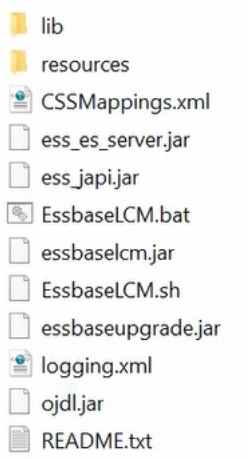
> **Note:**
>
> This process will convert the existing non-Unicode source applications to Unicode (UTF-8) prior to exporting the artifacts.

To export applications from Essbase Release 11.2.12+:

1. **Download the 11g LCM Export Utility**: In the Essbase web interface, click **Console**, expand **Command Line Tools**, and download the 11g LCM Export Utility (`EssbaseLCMUtility.zip`).

   > **Note:**
   >
   > As the 11g LCM Export Utility needs to be downloaded from the target 21c instance (included with Release 11.2.15), make sure the target environment (11.2.15) is ready prior to downloading the 11g LCM Export Utility.

2. Unzip the `EssbaseLCMUtility.zip` file after copying it to the desired location.
   - Use a zip file extraction program that can handle long path names, such as 7-Zip.
   - If you are prompted that any files or common components already exist, click **Yes** to overwrite the files.
   - Unzip to a directory with no spaces in the name.
3. Upon unzipping the `EssbaseLCMUtility.zip` file, the following files and folders would appear:




4. Open **resources** folder and then, open **UpgradePS4to21cScripts** folder.
5. Open `input.properties` file and update the following properties:

```
PS4_EPM_ORACLE_HOME
PS4_EPM_ORACLE_INSTANCE
PS4_EPM_DOMAIN_HOME
PS4_ESSBASE_HOST
PS4_ESSBASEPORT
PS4_ESSBASEADMINUSER
PS4_ESSBASEADMINPWD
EXPORT_PATH = <Any local directory to keep the exported content>
ESSBASEHOST = http(s)://host:9010/Essbase (target host)
ESSBASE_DEPLOYMENT_TYPE = ESSBASE_ONLY
Update user credentials of target host (Workspace login credentials)
ESSBASEADMINUSER
ESSBASEADMINPWD
```

6. Before running the utility, you must set the `JAVA_HOME` environment variable:
   - Windows example:

     ```
     set JAVA_HOME=<Local Drive>:\Oracle\Middleware_Home\JDK
     set PATH=%JAVA_HOME%\bin;%PATH%
     ```

   - LINUX example:

     ```
     export JAVA_HOME=/Middleware_Home/JDK
     export PATH=$JAVA_HOME/bin:$PATH
     ```

7. From a command prompt, change to the directory to which you unzipped the `EssbaseLCMUtility.zip` file, and then run the following command:`ExportPS4EssbaseApps.bat`.

   It will now export each application separately.

8. Check the file `EssbaseUpgradeStatus.xml`, located within the extracted Essbase LCM Utility folder, for the status when the export process is finished. The export process is successful if the task is success in the tag `<task status="SUCCESS" taskName="export">`. You can disregard any error notifications that are recorded following a success status. For example, you can disregard the errors below:

   ```
   Error in getting source partition, please recreate it manually after the
   migration.
   Error received while retrieving implied share from outline.
   ```

# Preparing Profitability and Cost Management Artifacts for Upgrading

**Related Topics**

- Preparing Standard Profitability and Detailed Profitability Applications for Upgrading
- Preparing Management Ledger Applications for Upgrading

## Preparing Standard Profitability and Detailed Profitability Applications for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Standard Profitability and Detailed Profitability application artifacts from Release 11.2.12+.

To export artifacts from Oracle Hyperion Profitability and Cost Management Release 11.2.12+:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand the application group that includes your Profitability applications, and then select the application to export.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `profitability_application_name_11.2.12`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
   The **Download** option is available only if the folder size is less than or equal to 2 GB. If the Profitability ZIP file is larger than 2GB, use an alternate method to access the file. For example, use a method such as FTP to transfer the folder to a location accessible to the Release 11.2.15 environment. By default, the exported folder is stored in *EPM_ORACLE_INSTANCE*`\import_export`.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.
9. Copy the ZIP file to a location accessible to the Release 11.2.15 environment.
10. Repeat these steps for each Profitability and Cost Management application.

11. After performing these steps, choose one of the following Metadata preparation steps:
    - Master Cube Approach - See Exporting Essbase Applications and Importing Essbase Applications.
    - Data Relationship Management Approach - See Exporting Profitability and Cost Management Standard and Detailed Application Metadata from Performance Management Architect.

    .

## Preparing Management Ledger Applications for Upgrading

Use the Export Template option to export Management Ledger artifacts from Release 11.2.12+.

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.12+ environment.
2. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.
3. Select the application you want to upgrade, and from the **Actions** menu, select **Export Template**.
4. In **Export Template**, make the following selections and then click **OK**.
    - Enter an export file name. File names should not include special characters.
    - Select **Include Input Data**.
    - Select the POVs that you want to migrate.
5. Log in to the server hosting Oracle Hyperion Shared Services, look for the ZIP file in the LCM import export location (by default, *epm_oracle_instance*\import_export) and copy it to a location accessible to the Release 11.2.15 environment.

# Preparing Financial Management Applications for Upgrading (Windows Only)

> **Note:**
>
> - Use the same schema as the source in the target environment.
> - Configure HFM in the target environment only after importing the schemas.
> - During Financial Management target configuration, ensure that you select all the Oracle Hyperion Financial Management configuration options, including **Upgrade Applications**.

To upgrade Financial Management, have your database administrator export the Financial Management database and restore it to the new database server or schema in the Release 11.2.15 environment.

To prepare applications from Financial Management Release 11.2.12+:

1. Shut down Financial Management services.
2. Locate the Financial Management Release 11.2.12+ database or schema.
3. Export (Oracle) or back up (SQL Server) the Release 11.2.12+ database schema:

- For Oracle Database, export the Release 11.2.12+ database schemas for Oracle Hyperion Financial Close Management using Oracle Data Pump.

  ```
  expdp <user>/<password>@<SID> DIRECTORY=data_pump_dir
  dumpfile=<user.dmp> logfile=exp_user.log SCHEMAS=<schema name to be
  exported>
  ```

  For example:

  ```
  expdp <hfm_source>/<password>@<SID> DIRECTORY=data_pump_dir
  dumpfile=<hfm_source.dmp> logfile=exp_user.log SCHEMAS=<schema name to
  be exported>
  ```

  For Oracle Database 21c - Ensure that you open the pluggable database and set `<CONTAINER=PDB NAME>` as indicated below, prior to executing the export command:

  ```
  ALTER PLUGGABLE DATABASE ALL OPEN;
  ALTER SESSION SET CONTAINER=<PDB NAME>
  ```

  ```
  expdp <system>/<password>@<PDB SID> DIRECTORY=data_pump_dir
  dumpfile=<user.dmp> logfile=exp_user.log SCHEMAS=<schema name to be
  exported>
  ```

- For Oracle Database, copy the schema dump file(s) `hfm_source.dmp` to a location accessible to the Release 11.2.15 environment.
- For SQL Server:
  a. Launch SQL Server Management Studio.
  b. Right-click the Financial Management source database and select **Tasks** and then select **Back Up**.
  c. In the **Back Up Database** Wizard, click **OK** to save all the defaults. A notification confirming the successful completion of the backup is displayed.
  d. Copy the HFM backup file (`.bak`) that was generated in the previous step to a file system that the target SQL database server (11.2.15) can access.

4. Restart Oracle Enterprise Performance Management System Release 11.2.12+ services.

# Preparing Financial Close Management Artifacts for Upgrading

## Tasks in the Release 11.2.12+ Source Environment

To upgrade Oracle Hyperion Financial Close Management, have your database administrator perform these steps:

1. Shut down all Oracle Enterprise Performance Management System services.
2. Export (Oracle) or back up (SQL Server) the Release 11.2.12+ database schema.

- For Oracle Database: Export the Release 11.2.12+ database schemas for Financial Close Management using Oracle Data Pump.

  ```
  expdp <user>/<password>@<SID> DIRECTORY=data_pump_dir
  dumpfile=<user.dmp> logfile=exp_user.log SCHEMAS=<schema name to be
  exported>
  ```

  For example:

  ```
  expdp <fcm_source>/<password>@<SID> DIRECTORY=data_pump_dir
  dumpfile=<fcm_source.dmp> logfile=exp_user.log SCHEMAS=<schema name to
  be exported>
  ```

  For Oracle Database 21c: Ensure that you open the pluggable database and set `<CONTAINER=PDB NAME>` as indicated below, prior to executing the export command:

  ```
  ALTER PLUGGABLE DATABASE ALL OPEN;
  ALTER SESSION SET CONTAINER=<PDB NAME>
  ```

  ```
  expdp <system>/<password>@<PDB SID> DIRECTORY=data_pump_dir
  dumpfile=<user.dmp> logfile=exp_user.log SCHEMAS=<schema name to be
  exported>
  ```

- For Oracle database: Copy the schema dump file(s) `fcm_source.dmp` to a location accessible to the Release 11.2.15 environment.
- For SQL Server:
  a. Launch SQL Server Management Studio.
  b. Right-click the Financial Close Management source database and select **Tasks** and then select **Back Up**.
  c. In the **Back Up Database** Wizard, click **OK** to save all the defaults. A notification confirming the successful completion of the backup is displayed.
  d. Copy the FCM backup file (`.bak`) that was generated in the previous step to a file system that the target SQL database server (11.2.15) can access.

3. Restart EPM System Release 11.2.12+ services.

> **Note:**
>
> The task flows are exported with the Oracle Hyperion Foundation Services artifacts.

# Preparing Financial Reporting Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export the document repository or artifacts.

> **Note:**
>
> Hyperion BI Plus is no longer available, and features such as Oracle Hyperion Financial Reporting reports with Oracle Essbase as a data source are no longer supported. You can't migrate Release 11.2.12+ reports that used Essbase as a data source to Release 11.2.15. In Release 11.2.15, Financial Reporting, which is now a component of Hyperion Financial Applications, continues to support connections to Oracle Hyperion Planning data sources using an Essbase connection, as well as Oracle Hyperion Profitability and Cost Management.

**Preparing the Financial Reporting Document Repository (Release 11.2.12+)**

Before you begin, delete objects that are no longer required.

To export the artifacts from the Document Repository:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node and then select **Document Repository**.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, enter the **File System Folder** where the artifacts will be exported, and then click **Export**.
   Specify a meaningful name, such as `financial_reporting_11.2.12`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the Financial Reporting folder, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2.15 environment.

# Preparing Tax Provision Applications for Upgrading (Windows Only)

Oracle Hyperion Tax Provision schema and applications are upgraded with Oracle Hyperion Financial Management.

See Preparing Financial Close Management Artifacts for Upgrading.

# Preparing FDMEE Artifacts for Upgrading

To upgrade Oracle Hyperion Financial Data Quality Management, Enterprise Edition, export the artifacts and the schema from Release 11.2.12+, and then import them into Release 11.2.15.

Note that exporting the schema must be performed after installing and configuring Release 11.2.15, because it requires a utility that is installed with Release 11.2.15. Procedures for this task are covered later in the upgrade process.

To export FDMEE artifacts from Release 11.2.12+:

1. Delete any data and log files in the `outbox` and `outbox/logs` directories that you won't need in the Release 11.2.15 environment.
2. Copy the entire Application Root Folder directory from the Release 11.2.12+ environment to a location accessible to the Release 11.2.15 Environment.
   The Application Root Folder is the storage location for the inbox, outbox, and logs for each FDMEE application

   > **Note:**
   >
   > To find the Application Root Folder directory, in Oracle Hyperion Enterprise Performance Management Workspace, click **Navigate**, then **Administer**, and then **Data Management**. Click the **Setup** tab, and then click **System Settings**. Note the directory specified in **Application Root Folder**.

3. If you have multiple applications with different Application Root Folders, copy those folders as well.

## Preparing the Data Export and Migration Utilities

When you installed Oracle Hyperion Financial Data Quality Management, Enterprise Edition Release 11.2.15, utilities were installed in `\EPM_ORACLE_HOME\products\FinancialDataQuality\database\migrate\Oracle` (for Oracle database) and `EPM_ORACLE_HOME\products\FinancialDataQuality\database\migrate\SQLServer` (for SQL Server).

To prepare the utilities, in the Release 11.2.15 environment, copy files:

- For Oracle Database:
  1. Copy `aif_export.par` from the Release 11.2.15 environment to a location accessible to the Oracle Data Pump location on the database server in the Release 11.2.12+ environment.
  2. Copy `aif_import.par` to a location accessible to the Oracle Data Pump location on the database server in the Release 11.2.15 environment.
- For SQL Server, copy `aif_migrate.dtsx` to the server where SQL Server Management Studio is installed.
- For both Oracle Database and SQL Server, copy `aif_post_import_updates.sql` to your Release 11.2.15 database environment.

### Exporting the FDMEE Schema (Oracle Database)

Oracle Hyperion Financial Data Quality Management, Enterprise Edition Release 11.2.15 includes a utility —`aif_export.par`—to export data from the Release 11.2.12+ environment.

To export the FDMEE schema from Release 11.2.12+:

1. In the Release 11.2.12+ environment, execute the Data Pump command from the Oracle Data Pump location on the database server to export the data. For example:

   ```
   expdp parfile=<DIR PATH>/aif_export.par
   ```

   Enter user credentials for the FDMEE schema.

Export produces the export data file in the default Data Pump output directory (`\Oracle\admin\orcl\dpdump`). The export filename is `aif_objects.dmp`.

For Oracle Database 21c - Ensure that you open the pluggable database and set `<CONTAINER=PDB NAME>` as indicated below, prior to executing the export command:

```
ALTER PLUGGABLE DATABASE ALL OPEN;
ALTER SESSION SET CONTAINER=<PDB NAME>


expdp <sourceuser>/<password>@<PDB SID> parfile=<DIR PATH>/aif_export.par
```

2. Copy `aif_objects.dmp` to a location accessible to the Oracle Data Pump location on the database server in the Release 11.2.15 environment.

See the *Oracle Database Utilities* guide on the Oracle Help Center to familiarize yourself with the Oracle Data Pump Utility.

## Preparing Calculation Manager Artifacts for Upgrading

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to export Oracle Hyperion Calculation Manager artifacts from Release 11.2.12+.

To export artifacts from Calculation Manager Release 11.2.12+:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. In the View pane, expand the **Application Groups** node, expand **Foundation**, and then click **Calculation Manager**.
4. Click **Select All**.
5. Click **Export**.
6. In the **Export** dialog box, in **File System Folder**, enter a name for the artifacts to be exported, and then click **Export**.
   Specify a meaningful name, such as `calculation_manager_11.2.12`.

   Check the status column and wait for **Completed** status.
7. Expand the **File System** node in Shared Services Console, right-click the folder you created, and then select **Download**.
8. In the **File Download** dialog box, click **Save** to save the application artifacts as a ZIP file.

   The entire contents of the ZIP file is downloaded as one file.
9. Copy the ZIP file to a location accessible to the Release 11.2.15 environment.

# Downloading and Preparing Files for Installation

Download files for Release 11.2.15 and extract the zip file contents. See Downloading Files for Installation.

When you are done with this step, return to the Upgrading Checklist.

# Installing EPM System Products for an Upgrade

Install Oracle Enterprise Performance Management System products to a new environment using EPM System Installer, as described in Installing EPM System Products in a New Deployment.

Note the following about installing EPM System products in an upgrade:

- You must install Release 11.2.15 on a new machine.
- For each machine, install all the products that you plan to host on that machine at one time. For additional requirements for a distributed installation, see Installing EPM System Products in a Distributed Environment.

When you are done with this step, return to the Upgrading Checklist.

# Restoring the Financial Management Schema

Before configuring Oracle Hyperion Financial Management, restore the schema or database that you exported from Release 11.2.12+ to the schema or database that you created for use with Release 11.2.15 See your database documentation for details.

When you are done with this step, return to the Upgrading Checklist.

# Configuring EPM System Products for an Upgrade

After you install, use EPM System Configurator to configure Oracle Enterprise Performance Management System products. Note the following special requirements to consider during configuration.

**Configuring Financial Management**

Before configuring Oracle Hyperion Financial Management, ensure that you've restored the schema or database that you exported from Release 11.2.12+ to the schema or database that you created for use with Release 11.2.15.

If you are using Windows 2016, see the post configuration information under the *Oracle Hyperion Technology* section in the Known Issues in 11.2.15 topic to enable support for Windows 2016 on Oracle Essbase 21c embedded with EPM 11.2.15.

During Financial Management configuration, note the following:

- Select all Financial Management configuration options, including **Upgrade Applications**.
- During Financial Management database configuration, specify the database that you restored for use in the Release 11.2.15 environment and then select **Reuse the existing database**.

When you are done with this step, return to the Upgrading Checklist.

# Starting EPM System Services

Start Oracle Enterprise Performance Management System services before you proceed. See Starting and Stopping EPM System Products.

When you are done with this step, return to the Upgrading Checklist.

# Validating the Installation

Use Oracle Hyperion Enterprise Performance Management System Diagnostics to validate the installation. See Validating the Installation and Verifying Deployment.

For Oracle Hyperion Financial Close Management, use the Financial Close Management Validation Tool. See Validating a Financial Close Management Deployment.

When you are done with this step, return to the Validating the Installation.

# Importing Artifacts and Data for Release 11.2.15

Use the steps in the following sections to import artifacts and data that you exported from Release 11.2.12+.

Note the required sequence:

1. Foundation Services Artifacts
2. Planning Applications
3. Essbase Applications
4. Profitability and Cost Management Artifacts
5. Financial Management Applications
6. Financial Close Management Artifacts
7. Financial Reporting Artifacts
8. FDMEE Artifacts
9. Oracle Hyperion Calculation Manager artifacts.
10. Provisioning information and taskflows.

Most products use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import artifacts and data to the Release 11.2.15 environment. To prepare for using Lifecycle Management to import artifacts and data:

- For LCM files that were too large to download in Release 11.2.12+, use a method such as FTP to transfer the files to the Lifecycle Management Release 11.2.15 **LCM Export Import Location** that you defined during configuration.
- Specify migration options in the Release 11.2.15 environment. See "Setting Migration Options" in Oracle® Enterprise Performance Management System Lifecycle Management Guide.

For details about using Lifecycle Management, see Oracle® Enterprise Performance Management System Lifecycle Management Guide

## Importing Foundation Services Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import users and groups from Oracle Hyperion Foundation Services Release 11.2.12+ to Release 11.2.15.

To import Foundation Services users and groups to Release 11.2.15:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Foundation Services users and groups ZIP file.
5. In **File System**, right-click the uploaded file and select **Import**.
6. Click **OK** when you are prompted to proceed with the import.

After importing artifacts, review the Migration Status Report to validate the import.

You import provisioning information and taskflows later in the upgrade process, after you've imported applications from Release 11.2.12+.

## Importing Planning Applications

Set up a new data source, and then use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import Oracle Hyperion Planning applications (metadata, data, and other artifacts) from Release 11.2.12+ to Release 11.2.15.

To import Planning applications to Release 11.2.15:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Planning Administration**.
3. Click **Manage Data Source**.
4. Click **Create Data Source**  , enter the data source name, description, and data source information for the application database and the Oracle Essbase Server, and then click **Save**. The data source name must match the data source name in the Release 11.2.12+ application.

   > **Tip:**
   >
   > Click **Validate** under **Application Database** to validate the database connection. Click **Validate** under **Essbase Server** to validate the Essbase Server connection.

5. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
6. Expand the **File System** node.
7. Right-click **File System**, select **Upload**, and then navigate to the location of the LCM export file that you exported from the Planning Release 11.2.12+ application.
   Skip this step for large files that you copied using another method.
8. In **File System**, expand the uploaded file, select the application, click **Select All**, select the application to import to, and then click **Import**.
   The application is created if it doesn't exist.

   If you get any errors related to application security:

   a. Import provisioning. See Importing Provisioning and Taskflows.
   b. Re-import application security using Lifecycle Management.

9. After importing artifacts, review the Migration Status Report to validate the import.
10. Repeat these steps for each application.

## Importing Public Sector Planning and Budgeting Applications

To import Oracle Hyperion Public Sector Planning and Budgeting applications, use the same method as for classic Oracle Hyperion Planning applications. See Importing Planning Applications.

## Importing Essbase Applications

Use 11g LCM Utility to import Oracle Essbase applications (metadata and data) from Release 11.2.12+.

Ensure that you have exported the Essbase applications as described in Preparing Essbase Applications for Upgrading. To import Essbase applications to Release 11.2.15:

1. Before running the utility, you must set the `JAVA_HOME` environment variable:
   - Windows example:

     ```
     set JAVA_HOME=<Local Drive>:\Oracle\Middleware_Home\JDK
     set PATH=%JAVA_HOME%\bin;%PATH%
     ```

   - LINUX example:

     ```
     export JAVA_HOME=/Middleware_Home/JDK
     export PATH=$JAVA_HOME/bin:$PATH
     ```

2. Open command prompt and run `ImportTo21c.bat` from the folder `UpgradePS4to21cScripts`. It will now import all the artifacts.
3. After importing artifacts, review the Migration Status Report to validate the import. Check the file `EssbaseUpgradeStatus.xml`, located within the extracted Essbase LCM Utility folder, for the status when the import process is finished. The import process is successful if the task is success in the tag `<task status="SUCCESS" taskName="import">`. You can disregard any error notifications that are recorded following a success status. For example, you can disregard the following error below:

   ```
   Error [/Databases/DB1/Drill-through definitions,FDMEE_Actual]:Cannot
   Create Drill Through URL
   ```

> **Note:**
>
> After the migration is complete, the following application level settings for Planning Based Essbase apps must be redone (they won't be carried over with the migrated application):
>
> - Data Cache
> - Index Cache
> - Any custom configuration completed for the application.

# Importing Profitability and Cost Management Artifacts

**Related Topics**

- Importing Standard Profitability and Detailed Profitability Applications
- Importing Management Ledger Applications

## Importing Standard Profitability and Detailed Profitability Applications

Use one of the following methods to import Oracle Hyperion Profitability and Cost Management artifacts from Release 11.2.12+ to Release 11.2.15 for Standard Profitability and Detailed Profitability applications.

### Master Cube Approach

1. Create a new, empty Profitability and Cost Management application.
   a. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
   b. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.
   c. Create a new application (from the **Actions** menu, select **New**) with these attributes, and then click **Next**.
      - **Application Name**—use the same name you used in Release 11.2.12+
      - **Essbase Application Server**—select the Essbase cluster to connect to
      - **Shared Services Project**— Default Application Group
      - **Application Type**—Standard Profitability or Detailed Profitability
      - **Dimension Source**—Master Cube
   d. From the Essbase Master Cube field, choose the Essbase Master Cube associated with the current application, then click Select All, and then click **Finish**.
2. Validate and enable the application.
   a. From the **Actions** menu, click **Validate and Enable**.
   b. Click the **Job Library**  tab and validate that the **Validate and Enable** job completed successfully.
   c. Click the **Applications**  tab and confirm that the application has a green check mark in the **Enabled** column.
3. Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import the Profitability and Cost Management artifacts from Release 11.2.12+ to Release 11.2.15:
   a. Log in to EPM Workspace in the Release 11.2.15 environment.
   b. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
   c. Expand the **File System** node.

d. Right-click the **File System** node, select **Upload**, and then navigate to the location of the LCM export file that you exported from the Profitability and Cost Management Release 11.2.12+ application. For large files that you copied using FTP,

e. In **File System**, select the uploaded file to expand it, click **Select All**, and then click **Import**.

f. Click **OK** when you are prompted to proceed with the import.

4. Deploy the Profitability and Cost Management dimensions to Oracle Essbase. See *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

5. Load input data. See *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

6. Repeat these steps for each application.

**Data Relationship Management Approach**

1. Create a new, empty Profitability and Cost Management application.

   a. Log in to EPM Workspace in the Release 11.2.15 environment.

   b. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.

   c. Create a new application (from the **Actions** menu, select **New**) with these attributes, and then click **Next**.

      - **Application Name**—use the same name you used in Release 11.2.12+
      - **Essbase Application Server**—select the Essbase cluster to connect to
      - **Shared Services Project**— Default Application Group
      - **Application Type**—Standard Profitability or Detailed Profitability
      - **Dimension Source**—Native

   d. Enter the dimension names from the Release 11.2.12+ application for these attributes, and then click **Finish**.

      - **Measure Dimension Name**
      - **Allocation Type Dimension Name** (Standard only)

2. Export metadata from Oracle Data Relationship Management and import it to Profitability and Cost Management. See Exporting from Data Relationship Management and Importing to EPM Applications.
   When importing the dimension metadata into Profitability and Cost Management, update dimensions one at a time, using the dimension flat files that you exported from Data Relationship Management. Perform this step for all dimensions except for the **Measures** dimension and the **Allocation Type** dimension (Standard only).

   **Measures** and **AllocType** are system dimensions that are auto populated with members when you create the application.

   Note that for Standard applications, if you have created user-defined members in the **Measures** dimension, you should also import the **Measures** dimension.

   a. From the **Actions** menu, select **Update Dimensions**.

   b. Browse to select the file that contains the dimension members to import, and then click **OK**.

3. Validate and enable the application.

   a. From the **Actions** menu, click **Validate and Enable**.

b. Click the **Job Library**  tab and validate that the **Validate and Enable** job completed successfully.

c. Click the **Applications**  tab and confirm that the application has a green check mark in the **Enabled** column.

4. Use Lifecycle Management to import the Profitability and Cost Management artifacts from Release 11.2.12+ to Release 11.2.15:

   a. Log in to EPM Workspace in the Release 11.2.15 environment.

   b. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.

   c. Expand the **File System** node.

   d. Right-click the **File System** node, select **Upload**, and then navigate to the location of the LCM export file that you exported from the Profitability and Cost Management Release 11.2.12+ application. For large files that you copied using FTP,

   e. In **File System**, select the uploaded file to expand it, click **Select All**, and then click **Import**.

   f. Click **OK** when you are prompted to proceed with the import.

5. Deploy the Profitability and Cost Management dimensions to Essbase. See *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

6. Load input data. See *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

7. Repeat these steps for each application.

## Importing Management Ledger Applications

Use this method to import Oracle Hyperion Profitability and Cost Management artifacts from Release 11.2.12+ to Release 11.2.15 for Management Ledger applications.

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Profitability Applications**.
3. From the **Actions** menu, select **Import Template**, navigate to the template that you exported from Release 11.2.12+, and then click **Next**.
4. Enter an application name, and then click **Finish**.
5. Check the **Job Library** to confirm that the **Import Template** job finished successfully.
6. From the **Applications** vertical tab, confirm that the application is there (you might need to refresh) and that it is marked as **Enabled**.

The **Import Template** action creates the application, imports the dimension metadata, imports the application artifacts, creates the Oracle Essbase cube and deploys the metadata to it, and imports the data.

# Importing Financial Management Applications

**Related Topics**

- Restoring the Financial Management Schema (SQL Server)

- Tasks in the Release 11.2.15 Target Environment

## Restoring the Financial Management Schema (SQL Server)

To restore the backup of Oracle Hyperion Financial Management schema to the target environment, perform the following steps:

1. In the Target database server (11.2.15), launch SQL Server Management Studio.
2. In the left pane, right-click on **Database** and select **Restore Database**.
3. Navigate to the HFM database backup file (`.bak`) that was copied in *step 4*. Click **OK**.
4. On the **Restore Database** screen, click **OK**. A confirmation message stating that the database has been restored will appear.
5. In order to comply with the target database schema naming convention, rename the restored HFM schema (if required).

## Tasks in the Release 11.2.15 Target Environment

1. For Oracle Database: Import the source database you exported from Release 11.2.12+ (`hfm_source`) to be used with the Release 11.2.15 environment. Use Oracle Data Pump to import to a different schema (for example, `hfm_target`).

   ```
   impdp <user>/<password>@<SID> DIRECTORY=data_pump_dir
   dumpfile=<DatabaseDumpFile.dmp> logfile=import.log SCHEMAS=<schema name to
   be imported>
   ```

   For example:

   ```
   impdp <hfm_source>/<password>@<SID> DIRECTORY=data_pump_dir
   dumpfile=<hfm_source.dmp> logfile=import.log SCHEMAS=<schema name to be
   imported>
   ```

   For Oracle Database 21c - Ensure that you open the pluggable database and set `<CONTAINER=PDB NAME>` as indicated below, prior to executing the import command:

   ```
   ALTER PLUGGABLE DATABASE ALL OPEN;
   ALTER SESSION SET CONTAINER=<PDB NAME>
   ```

   ```
   impdp <system>/<password>@<PDB SID> DIRECTORY=data_pump_dir
   dumpfile=<DatabaseDumpFile.dmp> logfile=import.log SCHEMAS=<schema name to
   be imported>
   ```

2. Oracle Database and SQL Server: Stop Oracle Enterprise Performance Management System services.
3. Oracle Database and SQL Server: Restart all EPM System servers and run Oracle Hyperion Enterprise Performance Management System Diagnostics.

# Importing Financial Close Management Artifacts

**Related Topics**

- Restoring the Financial Close Management Schema (SQL Server)

- Tasks in the Release 11.2.15 Target Environment

## Restoring the Financial Close Management Schema (SQL Server)

To restore the backup of Oracle Hyperion Financial Close Management schema in the target environment, perform the following steps:

1. In the target database server (11.2.15), launch SQL Server Management Studio.
2. In the left pane, right-click on **Database** and select **Restore Database**.
3. Navigate to the FCM database backup file (`.bak`) that was copied in *step 4*. Click **OK**.
4. On the **Restore Database** screen, click **OK**. A confirmation message stating that the database has been restored will appear.
5. In order to comply with the target database schema naming convention, rename the restored FCM schema (if required).

## Tasks in the Release 11.2.15 Target Environment

> **Note:**
>
> 1. For Oracle database and SQL Server: Configure Financial Close Management and Tax Provision to a new schema in the target environment (for example, `fcm_new`).
> 2. For Oracle database: Create a new database schema in the target database server (for example, `fcm_target`).
> 3. a. For Oracle database: Export schema from source environment and import it into the target environment. Using the schema **Remap** command, import the schema from source to target (note that this is the newly created schema (`fcm_target`) that you created in step 2 above).
>
>    b. For SQL Server: Restore the FCM schema that you exported from the source environment (11.2.12+). See Restoring the Financial Close Management Schema for more information.
> 4. a. For Oracle database: Use the remapped schema to run the Financial Close Management and Tax Provision configuration tasks.
>
>    b. For SQL Server: Use the restored schema to run the Financial Close Management and Tax Provision configuration tasks.

Have your database administrator perform these tasks in the Release 11.2.15 target environment:

1. For Oracle Database: Import the source database you exported from Release 11.2.12+ (`fcm_source`) to be used with the Release 11.2.15 environment. Use Oracle Data Pump with the REMAP command to import to a different schema (for example, `fcm_target`).

   ```
   impdp <user>/<password>@<SID> DIRECTORY=data_pump_dir
   dumpfile=<DatabaseDumpFile.dmp> logfile=import.log
   REMAP_SCHEMA=<user>:<user1>
   ```

For example:

```
impdp <fcm_source>/<password>@<SID> DIRECTORY=data_pump_dir
dumpfile=<fcm_source.dmp> logfile=import.log
REMAP_SCHEMA=<fcm_source>:<fcm_target>
```

For Oracle Database 21c: Ensure that you open the pluggable database and set `<CONTAINER=PDB NAME>` as indicated below, prior to executing the import command:

```
ALTER PLUGGABLE DATABASE ALL OPEN;
ALTER SESSION SET CONTAINER=<PDB NAME>
```

```
impdp <system>/<password>@<PDB SID> DIRECTORY=data_pump_dir
dumpfile=<DatabaseDumpFile.dmp> logfile=import.log
REMAP_SCHEMA=<user>:<user1>
```

2. For Oracle Database and SQL Server:
   a. Stop Oracle Enterprise Performance Management System services.
   b. Run EPM System Configurator again and select the **Configure Database** and **Deploy to Application Server** tasks for Oracle Hyperion Financial Close Management. If you are using Oracle Hyperion Tax Governance, also select the **Configure Database** and **Deploy to Application Server** tasks for **Tax Management**.
   During database configuration, enter details for the Release 11.2.15 database that you just imported (for example, `fcm_target`) to be used with Release 11.2.15, and when prompted, select **Reuse the existing database**. (You are prompted for each product you are configuring.)

   > **Note:**
   >
   > For SQL Server: During database configuration, enter details for the Release 11.2.15 database that you just restored (for example, `fcm_target`) to be used with Release 11.2.15, and when prompted, select **Reuse the existing database**. (You are prompted for each product you are configuring.)

   On the **Deploy to Application Server** page, select **FinancialClose**, **AccountReconciliation**, and **SDM**. If you are using Tax Governance, select **TaxOperation** and **TSS**. If you are using Tax Provision, select **TaxProvisioning**.
   c. Import WebLogic users from the Release 11.2.12+ environment to the Release 11.2.15 environment.
   d. Restart all EPM System servers and run Oracle Hyperion Enterprise Performance Management System Diagnostics.

# Importing Financial Reporting Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import the Oracle Hyperion Financial Reporting Document Repository (Release 11.2.1.12+) or Oracle Hyperion Reporting and Analysis artifacts (Release 11.2.12+).

**Importing the Financial Reporting Document Repository (Release 11.2.12+)**

Use Lifecycle Management to import the document repository from Financial Reporting Release 11.2.12+ to Release 11.2.15.

To import the document repository to Release 11.2.15:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the LCM export file that you exported from Financial Reporting Release 11.2.12+.
5. In **File System**, expand the uploaded file, click **DOCREP**, then **Select All**, and then click **Import**.
6. Click **OK** when you are prompted to proceed with the import.

# Importing FDMEE Artifacts

Have your database administrator perform these tasks.

To upgrade Oracle Hyperion Financial Data Quality Management, Enterprise Edition, import the schema and artifacts from Release 11.2.12+ to Release 11.2.15.

FDMEE Release 11.2.15 includes utilities, `aif_export.par` (Oracle Database) and `aif_migrate.dtsx` (SQL Server) to export or migrate data from Release 11.2.12+. The instructions for this step are included in this topic because you must perform the steps after you install and configure Release 11.2.15.

## Importing the FDMEE Schema (Oracle Database)

Oracle Hyperion Financial Data Quality Management, Enterprise Edition Release 11.2.15 includes a utility—`aif_import.par`—to import metadata and data from the `aif_objects.dmp` file that you exported from Release 11.2.12+. Use Oracle Data Pump to import the Release 11.2.12+ schema into the Release 11.2.15 schema.

To import the FDMEE schema to Release 11.2.15:

1. Execute the following command from the Oracle Data Pump location on the Release 11.2.15 database server to import the data:

   ```
   impdp remap_schema=<SOURCE SCHEMA NAME>:<TARGET SCHEMA NAME>
   parfile=aif_import.par
   ```

   where `<SOURCE SCHEMA NAME>` is the name of the Release 11.2.12+ schema.

   where `<TARGET SCHEMA NAME>` is the name of the Release 11.2.15 schema.

   `aif_import.par` imports the metadata and data from `aif_objects.dmp` to the new schema.

   You can ignore "ORA-31684: Object type INDEX XXXX already exists" error.

For Oracle Database 21c - Ensure that you open the pluggable database and set <CONTAINER=*PDB NAME*> as indicated below, prior to executing the import command:

```
ALTER PLUGGABLE DATABASE ALL OPEN;
ALTER SESSION SET CONTAINER=<PDB NAME>


impdp <user>/<password>@<PDB SID> remap_schema=<SOURCE SCHEMA
NAME>:<TARGET SCHEMA NAME> parfile=<DIR PATH>/aif_import.par
```

2. After the import process is complete, execute the following SQL in the Release 11.2.15 database server environment to complete the database configuration. Log in as the user who owns the FDMEE tables for release 11.2.15:

```
aif_post_import_updates.sql
```

## Migrating the FDMEE Schema (SQL Server)

The data migration process for Oracle Hyperion Financial Data Quality Management, Enterprise Edition uses SQL Server Integration Services (SSIS) to perform the migration. Review SQL Server documentation and familiarize yourself with the SSIS package.

This procedure requires a network connection between the Release 11.2.12+ environment and the Release 11.2.15 environment.

To migrate the FDMEE Schema (SQL Server):

1. Stop the FDMEE service.
2. Update the SSIS package with connection information, and then save the file:
   a. Open `aif_migrate.dtsx` using a text editor.
   b. Edit line numbers 27 and 31 to specify the database connection string for the destination database (the FDMEE Release 11.2.15 database):
      - **Data Source**—Specify the *serverName:port*. If you encounter connection errors, try entering *serverName* only, without the port.
      - **User ID**—Specify the SQL Server user used to configure the FDMEE Release 11.2.15 database.
      - **Initial Catalog**—Specify the name of the database used to configure FDMEE Release 11.2.15.
      - **desstination_password**—Specify the password (case-sensitive) in line number 31, by replacing **password** with the destination database password.
   c. Edit line numbers 42 and 46 to specify the database connection string for the source database (the FDMEE Release 11.2.12+ database):
      - **Data Source**—Specify the *serverName:port*.
      - **User ID**—Specify the SQL Server user used to configure the FDMEE Release 11.2.12+ database.
      - **Initial Catalog**—Specify the name of the database used to configure FDMEE Release 11.2.12+.
      - **source_password**—Specify the password (case-sensitive) in line number 46, by replacing **password** with the source database password.

3. Execute the SSIS Data Migration Package.

   The default location is `<Local Drive>:\Program Files (x86)\Microsoft SQL Server Management Studio 18\Common7\IDE\CommonExtensions\Microsoft\SSIS\150\Binn`

   a. Launch `DTExecUI.exe`.

   b. For**Package source**, select **File System**. For **Package**, browse to and select `aif_migrate.dtsx`.

   c. Click **Execute**.

   d. Review the Package Execution Process to ensure that there are no errors.

4. After the import process is complete, execute the following SQL in the Release 11.2.15 database server environment to complete the database configuration. Log in as the user who owns the FDMEE tables for release 11.2.15

   ```
   aif_post_import_updates.sql
   ```

   To execute the query, open SQL Server Management Studio, right-click the FDMEE 11.2.15 database, select **New Query**, copy the contents of `aif_post_import_updates.sql`, and then click **Execute**.

5. Check for any errors. Fix any issues in the source and repeat steps 3 and 4 in sequence as needed.

   You can ignore errors related to dropping tables with the suffix `_UPG` in the name.

## Importing FDMEE Artifacts to Release 11.2.15

To import Oracle Hyperion Financial Data Quality Management, Enterprise Edition artifacts to Release 11.2.15:

1. Update the Application Root Folder Settings: In Oracle Hyperion Enterprise Performance Management Workspace, click **Navigate**, then **Administer**, and then **Data Management**. Click the **Setup** tab, and then click **System Settings**. Update the directory specified in **Application Root Folder** to indicate the location for Release 11.2.15.
2. Copy the data that you exported from Release 11.2.12+ to the new Application Root Folder directory in Release 11.2.15.
3. If you have multiple applications with different Application Root Folders, copy those folders as well.
4. If you are migrating from Solaris to Windows, when copying the log files from the Solaris environment, the different operating systems handle the end of line character differently. To resolve this issue, open the log files and resave them on the Windows server.

## Additional Manual Steps for FDMEE

1. If you are importing data from a flat file, create the FDMEE folder using System Settings and copy the `FlatFile.txt` used for import.
2. Point the ODI settings to the new source server settings.
   For example, ensure that the ARM database is properly targeted: Navigate to ODI Console `http://<server_name>:19000/odiconsole`. Expand **Topology**, **Physical Architecture**, **Technologies**, **Microsoft SQL Server**, **ARM_DATA_SERVER_MSSQL**, and then click **View**. Make sure the Oracle Hyperion Financial Close Management ARM database name is correct. If not, update with the correct information:

a. Launch ODI Studio and log in to the Work Repository.

b. Click the **Topology** tab and expand **Technologies**, then **Microsoft SQL Server**, and then double-click **ARM_DATA_SERVER_MSSQL**.

c. Update the user and password if needed.

d. On the **JDBC** Definition tab, update the JDBC URL to use the correct ARM database. For example, update `jdbc:weblogic:sqlserver://serverName:port;databaseName=FCM` to `jdbc:weblogic:sqlserver://serverName:port;databaseName=FCM1125`.

e. Expand and double-click to open the last node, **ARM_DATA_SERVER_MSSQL.<DBNAME>.dbo**.

f. From the **Database (Catalog)** and **Database (Work Catalog)** lists, select the correct ARM schema.

g. You might also need to also set the ARM_TGT logical schema. In ODI Studio, click the **Topology** tab. Expand **Contexts** and double-click **Global**. On the **Global** tab, click **Schemas** and make sure the Logical Schema **ARM_TGT** has the correct Physical Schema, for example, `ARM_DATA_SERVER_MSSQL.FCM1125.dbo`, and then save your changes.

h. Save and restart the Financial Close Management and Oracle Hyperion Financial Data Quality Management, Enterprise Edition Servers

See FDMEE Application Folder Architecture and Setting System-Level Profiles in *Oracle Hyperion Financial Data Quality Management Administrator's Guide* for details.

## Importing Calculation Manager Artifacts

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import Oracle Hyperion Calculation Manager artifacts from Release 11.2.12+ to Release 11.2.15.

To import Calculation Manager artifacts to Release 11.2.15:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Calculation Manager ZIP file.
5. In **File System**, right-click the uploaded file, click **CALC _ Calculation Manager**, click **Select All**, and then click **Import**.
6. Click **OK** when you are prompted to proceed with the import.
7. After importing artifacts, review the Migration Status Report to validate the import.

## Importing Provisioning and Taskflows

After you've imported applications from Release 11.2.12+, import provisioning information and taskflows.

Use Oracle Hyperion Enterprise Performance Management System Lifecycle Management to import provisioning information and taskflows from Oracle Hyperion Foundation Services Release 11.2.12+ to Release 11.2.15.

To import provisioning information and taskflows to Release 11.2.15:

1. Log in to Oracle Hyperion Enterprise Performance Management Workspace in the Release 11.2.15 environment.
2. From the **Navigate** menu, select **Administer**, and then select **Shared Services Console**.
3. Expand the **File System** node.
4. Right-click the **File System** node, select **Upload**, and then navigate to the location of the Foundation Services provisioning information and taskflows ZIP file.
5. In **File System**, right-click the uploaded file and select **Import**.
6. Click **OK** when you are prompted to proceed with the import.

After importing provisioning, review the following to validate the import:

- Check user provisioning. Expand **User Directories**, then **Native Directory**, select **Users**, then **Shared Services**, then **Provisioning**, and then **Users**.
- Check group provisioning. Expand **User Directories**, then **Native Directory**, and then select **Groups**. Right-click a group, select **Provision**, and review the provisioning.

If you are using an external authentication provider, repeat these steps, this time importing the assigned roles for your provider.

# Importing Performance Management Architect Application Metadata into Data Relationship Management

You'll create a Oracle Data Relationship Management application and use the Data Relationship Management Metadata Migration Utility to load your metadata to theData Relationship Management application where you can manage it. You must first export your metadata from Oracle Hyperion EPM Architect using the EPMA File Generator Utility and convert that file to an XML file that can be used to import the metadata to the Data Relationship Management application.

In Data Relationship Management, follow these steps to import your Performance Management Architect application metadata:

| Step | Task | Refer to this documentation |
|---|---|---|
| 1. | 1. Create a Data Relationship Management application to load the import file to.<br>2. Use the Data Relationship Management Metadata Migration Utility to load the appropriate application template, such as the Planning App Template, for the ADS type you exported using the EPMA File Generator Utility.<br>By default, application templates are installed to:<br>`<Local Drive>:\Oracle\Middleware\EPMSystem11R1\products\DataRelationshipManagement\server\apptemplates`<br>3. Modify the Data Relationship Management configuration as necessary to align available properties in the file with the Import specification created by the application template.<br>Create additional properties in Data Relationship Management as needed for your implementation. | • Creating an Application<br>• Migrating Data Relationship Management Metadata - Follow the instructions in "Loading Metadata"<br>• Managing Property Definitions |
| 2. | Import the converted file into your Data Relationship Management application. | Working with Imports |
| 3. | Manage your metadata. | Getting Started |

# Exporting from Data Relationship Management and Importing to EPM Applications

Follow these steps to export your application metadata from Oracle Data Relationship Management and import it into your EPM application.

| Step | Task | Refer to this documentation |
|---|---|---|
| 1. | **In Data Relationship Management**: Export the application metadata to a file using the export specification created by the application template. | Working with Exports |

| Step | Task | Refer to this documentation |
|---|---|---|
| 2. | **In your EPM application**: Import the metadata to your application. For example, for Oracle Hyperion Planning, you can import it either interactively by dimension or via batch using the Outline Load Utility. | • For Planning, Importing and Exporting Data and Metadata<br>• For Oracle Hyperion Financial Management, Managing Applications<br>• For Oracle Hyperion Profitability and Cost Management, Importing Data into Profitability and Cost Management<br>• For Oracle Essbase, Loading Data and Building Dimensions |

# Repeating the Upgrade Process for Applications

The upgrade process in this release is based on deploying a new software release and moving applications, data, and provisioning information from the earlier deployment to the new deployment. This approach allows the upgrade process to be repeatable. You can export artifacts from Oracle Enterprise Performance Management System Release 11.2.12+ and import them to your Release 11.2.15 test environment. After testing is completed, you can repeat the export and import steps to your Release 11.2.15 production environment to get the latest artifacts.

If you are managing metadata in Oracle Data Relationship Management, exporting data from Data Relationship Management and importing it to your EPM System applications is an iterative process and part of maintaining your applications.

# Upgrading EPM System Clients

Depending on the client, if you are upgrading from an earlier release of an Oracle Enterprise Performance Management System client component, you:

- Uninstall the earlier release before you install the new release.
- Install over the earlier release.

Consider installing the client on a different machine in a test environment until you are ready to uninstall or install over the earlier version.

You can upgrade Oracle Smart View for Office in one of several ways:

- Have users install Smart View from Oracle Hyperion Enterprise Performance Management Workspace: from the Tools menu, select **Install**, and then **Smart View**.
- Install Smart View on client machines using the Smart View installer.

Oracle recommends that you uninstall Smart View before installing the latest version.

For more information, see Installing EPM System Clients.

13

# Starting and Stopping EPM System Products

This chapter describes how to start and stop Oracle Enterprise Performance Management System services and applications and provides default URLs for EPM System clients.

Startup order:

1. Start all databases used as repositories
2. Start WebLogic Administration Server. See Starting and Stopping WebLogic Administration Server.

> **Note:**
>
> WebLogic Administration Server must be running after configuration for the first time you start EPM System services. After the first EPM System services startup, the services will work and restart even if WebLogic Administration Server is not running or if it goes down.

3. Start Node Manager and Oracle HTTP Server, if you are using Oracle HTTP Server as your web server. See Starting and Stopping Oracle HTTP Server.
4. Start all EPM System services using a single start script. See Starting and Stopping EPM System Using a Single Script.
   There is no required start order for EPM System services with the exception of Oracle Hyperion Financial Close Management.

   If you are using Financial Close Management, see the required service startup order in Financial Close Management Application Server.

> **Note:**
>
> If you selected **Run Windows Services as non-local system account** and specified a user name and password on the **Configure Common Settings** panel of EPM System Configurator, Windows services are started using the specified user name. If you do not specify a user name and password, EPM System Configurator creates Windows services using the local system account. Before you start the services, change them to use the appropriate domain account.
>
> See Applying an Update Installation Checklist if you are performing an update (from 11.2.x to 11.2.15).

# Starting and Stopping WebLogic Administration Server

> **Note:**
>
> WebLogic Administration Server must be running after configuration for the first time you start Oracle Enterprise Performance Management System services. After the first EPM System services startup, the services will work and restart even if WebLogic Administration Server is not running or if it goes down.

To **start** WebLogic Administration Server:

Open command prompt and run `startWeblogic.cmd` from this location: *<MIDDLEWARE_HOME>*`/user_projects/domains/EPMSystem/bin`.

To **stop** WebLogic Administration Server:

Open command prompt and run `stopWeblogic.cmd` from this location: *<MIDDLEWARE_HOME>*`/user_projects/domains/EPMSystem/bin`.

# Starting and Stopping Oracle HTTP Server

If you are using Oracle HTTP Server as your web server, start Node Manager and Oracle HTTP Server. Oracle HTTP Server is managed and monitored with Node Manager.

To **start** Oracle HTTP Server:

1. Open command prompt and run `startComponent ohs_component` from this location: *EPM_ORACLE_INSTANCE*`\httpConfig\ohs\bin`.
2. Enter the WebLogic Admin Server password.

To **stop** Oracle HTTP Server:

1. Open command prompt and run `stopComponent ohs_component` from this location: *EPM_ORACLE_INSTANCE*`\httpConfig\ohs\bin`.
2. Enter the WebLogic Admin Server password.

# Starting and Stopping EPM System Using a Single Script

To **start** Oracle Enterprise Performance Management System services:

- Open command prompt and run `start.bat | start.sh` from this location: *EPM_ORACLE_INSTANCE*`/bin`.
- Run this start script on each machine in your environment.

To **stop** EPM System services:

- Open command prompt and run `stop.bat | stop.sh` from this location: *EPM_ORACLE_INSTANCE*`/bin`.
- Run this start script on each machine in your environment.

After the single start script completes, you can run Oracle Hyperion Enterprise Performance Management System Diagnostics to determine which services on a machine are running. See Validating the Installation and Verifying Deployment.

See Applying an Update Installation Checklist if you are performing an update (from 11.2.x to 11.2.15).

# Launching Clients

This section describes how to launch Oracle Enterprise Performance Management System clients. It lists default URLs and script names as appropriate. Most clients can also be started using the Windows Start menu.

The following table describes the URLs and scripts for launching EPM System clients.

To connect from a server or client to a Java web application, you must use the web server port (*machine_name*:*web_server_port*) in the URL. For example, *machine_name*:19000 is the default for Oracle HTTP Server and *machine_name*:9000 is the default for the proxy server.

**Table 13-1 Launching Clients**

| Client | URL | Script or Other Launch Method |
|---|---|---|
| Oracle Hyperion Shared Services Console | http://*WebServer*:*Port*/interop/ | From the **Start** menu, select **Oracle EPM System**, and then **Shared Services URL**.<br>**Note:** The Start menu item is available only on the machine on which you installed the web server. |
| Oracle Hyperion Enterprise Performance Management Workspace | http://*WebServer*:*Port*/workspace/ | From the **Start** menu, select **Oracle EPM System**, and then **Workspace URL**.<br>**Note:** The Start menu item is available only on the machine on which you installed the web server. |
| Oracle Data Relationship Management Web Client | http://*drm_web_server_name*/drm-web-client | Select **Start**, then **Oracle EPM System**, then **Data Relationship Management**, and then **Web Client**. |
| Data Relationship Management Migration Utility | http://*drm_web_server_name*/drm-migration-client | Select **Start**, then **Oracle EPM System**, then **Data Relationship Management**, and then **Migration Utility**. |
| Data Relationship Management Batch Client | N/A | From a Windows command line prompt, run *EPM_ORACLE_HOME*/products/DataRelationshipManagement/client/batch-client/drm-batch-client.exe |
| EAS (Essbase Administration Services) Lite Console | http://*WebServer*:*port*/easconsole/ | NA |
| Oracle Essbase Client | NA | Select **Start**, then **Oracle EPM System**, then **Essbase**, and then **Essbase Client.** |
| Predictive Planning | N/A | From Oracle Smart View for Office, open a valid Oracle Hyperion Planning form, select the **Planning** ribbon, and then click **Predict**. |

**Table 13-1 (Cont.) Launching Clients**

| Client | URL | Script or Other Launch Method |
|---|---|---|
| Smart View | NA | Use the Smart View menu or Smart View ribbon in Microsoft Excel, Microsoft Word, or Microsoft PowerPoint. |

14

# Validating the Installation and Verifying Deployment

**Related Topics**

- Validating the Installation
- Verifying the Import of Essbase 11g applications
- Generating a Deployment Report
- Verifying Deployment
- Validating a Financial Close Management Deployment

## Validating the Installation

Oracle Hyperion Enterprise Performance Management System Diagnostics tests the connectivity of installed and configured Oracle Enterprise Performance Management System components. Run EPM System Diagnostics on each machine in the deployment. The results of the tests are saved in HTML format.

You must install, configure, and run EPM System Diagnostics as the same user.

### Prerequisites

Before using Oracle Hyperion Enterprise Performance Management System Diagnostics, complete these prerequisites:

- Install Oracle Enterprise Performance Management System products. See Installing EPM System Products in a New Deployment.
- Use EPM System Configurator to perform all configuration tasks required for each product. See Configuring EPM System Products in a New Deployment.
- Perform manual configuration tasks.

  See Performing Manual Configuration Tasks in a New Deployment.
- Start EPM System services.

  See Starting and Stopping EPM System Products.

### Using EPM System Diagnostics

To run Oracle Hyperion Enterprise Performance Management System Diagnostics:

1. Choose a method:
   - (Windows) In *epm_oracle_instance*/bin, double-click `validate.bat`.
   - From the Start Menu, choose **Programs**, then **Oracle EPM System**, and then **EPM System Diagnostics**.
   - (Linux) From a console, change to `/bin`, and then enter `validate.sh`.

Progress is shown in the command window.

2. To view results, navigate to *epm_oracle_instance*/diagnostics/reports and open instance_report_*date_time*.html.
3. Look for failed tests, and diagnose and fix problems.

   EPM System Diagnostics creates a ZIP file of all the logs in /logszips for your convenience.

   For more information about logs, see *Oracle Enterprise Performance Management System Installation and Configuration Troubleshooting Guide*.
4. Run EPM System Diagnostics again and view the report to verify that problems are solved.

> **Note:**
>
> Clicking Refresh in the browser does not refresh the report output.

5. In a distributed environment, run EPM System Diagnostics on each machine in the deployment.

The report captures the following information:

- Test date and time
- Test Status: Passed or Failed for each test
- Service: Type of test for each test
- Test Description: A detailed description of each test
- Duration: Duration of each test
- Test start time
- Test end time
- Total test duration

## Diagnostics Performed

The following list highlights the Oracle Hyperion Enterprise Performance Management System Diagnostics tests performed for Oracle Enterprise Performance Management System products.

- CFG: Configuration - Checks whether all configuration tasks have been completed
- DB: Database - Checks connection to database *host*:*port*;*databaseName*
- EXT: External Authentication - Checks Native Directory external authentication provider configuration
- HTTP: http - Checks availability of HTTP context for all components configured for the web server.
- SSO:
  - Checks status of Oracle Hyperion Shared Services security (Native Directory as well as external directories)
  - Checks availability of login to Shared Services, Taskflows, Audit, Shared Services Java web application, and Oracle Hyperion Enterprise Performance Management System Lifecycle Management

- WEB: Web application - Checks availability of Java web application on *host*:*port*
- Additional product-specific tests

# Verifying the Import of Essbase 11g applications

After completing the update to Release 11.2.15:

1. Review the Jobs page within the **Essbase Web Interface** to verfiy the import of Essbase 11g applications.
2. Review the job details of any LCM Import Job with a yellow exclamation icon. To resolve any errors listed within the job details, see *Oracle Enterprise Performance Management System Installation and Configuration Troubleshooting Guide*.

# Generating a Deployment Report

After completing an Oracle Enterprise Performance Management System deployment, you can generate a deployment report that lists this information:

- EPM Deployment Topology Report
  - Logical Web Addresses — all logical Java web applications and all web servers that are configured
  - Application Tier Components — the components configured for each EPM Instance in this deployment, including the Java web application URL and domain name for each Java web application
  - Database Connections — all databases configured for EPM System products
  - User Directories — user directories used by EPM System products; configured security providers are listed in the same order as configured in Oracle Hyperion Shared Services
  - Data Directories — data directories used by EPM System products, indicating the directories that need to be on a shared file system
- EPM Deployment History Report — configuration history of activities on the specified date for each server in the deployment

This report can help you to resolve any issues that might arise in your deployment. For example, you can use the report to verify that there is only one WebLogic domain and that the deployment points to the correct number of database schemas. The deployment report is created from the Oracle Hyperion Shared Services Registry database. You can generate the report from any server in the deployment, and it does require EPM System services to be running.

The report has additional sections that show deployment history

To generate a deployment report:

1. Open a command line window and navigate to *EPM_ORACLE_INSTANCE*/bin.
2. Run the command epmsys_registry.bat|.sh report deployment.

   By default, the report is saved as *EPM_ORACLE_INSTANCE*/diagnostics/reports/deployment_report_*YYYYMMDD_HHMMSS*.html.

   You can add an optional file name argument to the command to save the HTML report with a different file name or location. For example, this command saves the report as <Local Drive>:/epm_setup/epm_deployment.html:

```
epmsys_registry.bat|.sh report deployment <Local Drive>:/epm_setup/
epm_deployment
```

# Verifying Deployment

**Related Topics**

- Verifying Shared Services Deployment
- Verifying EPM Workspace Deployment and Products in EPM Workspace
- Verifying Administration Services Deployment
- Verifying Provider Services Deployment

## Verifying Shared Services Deployment

To verify deployment:

1. From the Start menu, select **Programs**, then **Oracle EPM System**, then instanceName, then **Foundation Services**, and then **Shared Services URL**. Or, using a web browser, open:

   `http://Hostname.Example.Com:WebServerListenPortinterop/`

2. Log on to Oracle Hyperion Shared Services.
3. Review the output for the WebLogic managed server in *MIDDLEWARE_HOME*`/user_projects/domains/EPMSystem/servers/`*SERVER_NAME*`/logs`.
4. Review the product logs in `/diagnostics/logs`. You can also review the diagnostics reports in `/diagnostics/reports`.

## Verifying EPM Workspace Deployment and Products in EPM Workspace

To verify deployment:

1. From the Start menu, select **Programs**, then **Oracle EPM System**, then instanceName, then **Workspace**, and then **Workspace URL**. Or, using a web browser, open

   `http://Hostname.Example.Com:WebServerListenPortworkspace/`

2. Review the output for your WebLogic managed server in *MIDDLEWARE_HOME*`/user_projects/domains/EPMSystem/servers/`*SERVER_NAME*`/logs`.
3. Review the product logs in `/diagnostics/logs`. You can also review the diagnostics reports in `/diagnostics/reports`.
4. From the Oracle Hyperion Enterprise Performance Management Workspace Help menu, select **About** and in the **Details** section verify the list of installed products.
5. Launch each listed product from EPM Workspace. The following products can be launched from EPM Workspace:
   - Oracle Hyperion Financial Reporting
   - Oracle Hyperion Planning
   - Oracle Hyperion Financial Management
   - Oracle Hyperion Profitability and Cost Management

Before you can access Profitability and Cost Management in EPM Workspace and verify deployment, you must perform some initial tasks. See the *Oracle Hyperion Profitability and Cost Management Administrator's Guide*.

- Oracle Hyperion Calculation Manager
- Oracle Hyperion Financial Data Quality Management, Enterprise Edition
- Oracle Hyperion Financial Close Management.

> **Note:**
>
> Beginning with Release 11.2.15, the version numbers are displayed in "11.2.15.0.000" format under **Help** > **About Oracle Enterprise Performance Management System Workspace, Fusion Edition**. To view the build number, navigate to the status page for your deployment, for example, http://epm.example.com:19000/workspace/status. Build number is displayed as displayVersion for a logged in session, for example, displayVersion=11.2.15.0.000.04.

## Verifying Administration Services Deployment

To verify deployment:

1. Using a web browser, open:

   *WebServer*:*port*/easconsole/console.html

2. Log on to Oracle Essbase Administration Services using the Java Web Start console.
3. Review the output for your WebLogic managed server in *MIDDLEWARE_HOME*/user_projects/domains/EPMSystem/servers/*SERVER_NAME*/logs.
4. Review the product logs in /diagnostics/logs. You can also review the diagnostics reports in /diagnostics/reports.

## Verifying Provider Services Deployment

To verify deployment:

1. Using a web browser, open:

   http://*Hostname.Example.Com:WebServerListenPort*aps/APS

2. Review the output for your WebLogic managed server in *MIDDLEWARE_HOME*/user_projects/domains/EPMSystem/servers/*SERVER_NAME*/logs.
3. Review the product logs in /diagnostics/logs. You can also review the diagnostics reports in /diagnostics/reports.

# Validating a Financial Close Management Deployment

Oracle Hyperion Financial Close Management Validation Tool scans the system configuration settings needed for successful functioning of Financial Close Management. Oracle recommends that you run Financial Close Management Validation Tool after you complete the

installation and configuration steps to test that the components for Financial Close Management are correctly deployed and configured.

To use Financial Close Management Validation Tool:

1. From a web browser, open the following URL:

   ```
   FCMHOST:FCMPORT/fcc/faces/oracle/apps/epm/fcc/ui/page/FCCValidation.jspx
   ```

   where *FCMHOST* is the machine where Financial Close Management is configured and *FCMPORT* is port 8700. You can find this information from WebLogic Administration Console. To view this information, log in to the Administration Console and navigate to **Environment**, and then **Servers**.

2. Log in to the Financial Close Management Validation Tool with a user from the external provider. If there are issues with the external provider configuration, log on with any seeded user (seeded both on WebLogic Server and Oracle Hyperion Shared Services native directory) and run the tool to identify issues with the external provider configuration.

3. Review the status for each of the following:

**Table 14-1 Validation tests for Financial Close Management**

| Validation Item | Results |
|---|---|
| Admin Server | Host<br>Port<br>Status (running/shutdown)<br>DataSources |
| Foundation Server | Host<br>Port<br>Status<br>DataSources |
| FCM Managed Server | Host<br>Port<br>Status<br>DataSources |
| FinancialClose Web Application | Version<br>State<br>DB Type |
| FinancialCloseTaxOpCommon Web Application | Version<br>State<br>DB Type |
| EPM-FCM-LIBRARIES library | Version<br>State<br>DB Type |
| Authentication Providers | DefaultAuthenticator<br>Control Flag<br>EPMIdentityAsserter<br>fcm_valid_users role is created correctly<br>virtualize flag is true<br>LibOVD is enabled |

**Table 14-1 (Cont.) Validation tests for Financial Close Management**

| Validation Item | Results |
|---|---|
| External Authenticators | Lists the external Identity store configuration. The tool lists the values used for the configuration. You must ensure that the entered values are correct. |

4. Look for failed tests, diagnose, and fix problems.
5. Run Financial Close Management Validation Tool again until all tests pass.
6. Click **Validate Test Schedule**.

   The **Validate Test Schedule** button is enabled only if all the required configuration tests in Table 1 pass without errors.
7. Review the status of the following tasks:
   - Business Event
   - Composite Instance
   - FCM Basic Task
   - Human Workflow

   In case of any errors, the test FCCTaskExecutionComposite instance is not deleted and you can see more details of the error from the Enterprise Manager console. If all the validation items are successful, then the test composite and instance are deleted.

To use Account Reconciliation Manager Validation Tool:

1. From a web browser, open the following URL to run the Account Reconciliation Manager Validation Tool.

   ```
   FCMHOST:FCMPORT/arm/faces/oracle/apps/epm/arm/ui/page/common/
   ARMValidation.jspx
   ```

   where *FCMHOST* is the machine where Financial Close Management is configured and *FCMPORT* is the listening port of the FinancialClose0 managed Server in the WebLogic Administration Console. You can find this information from WebLogic Administration Console. To view this information, log in to the Administration Console and navigate to **Environment**, and then **Servers**.
2. Log in to the Account Reconciliation Manager Validation Tool with the Shared Services Admin user.
3. Click **Validate Account Reconciliation Manager Configuration**.
4. Review the status for each of the following:

**Table 14-2 Validation tests for Account Reconciliation Manager**

| Validation Item | Results |
|---|---|
| Admin Server | Host<br>Port<br>Status (running/shutdown)<br>DataSources |

**Table 14-2 (Cont.) Validation tests for Account Reconciliation Manager**

| Validation Item | Results |
|---|---|
| Foundation Server | Host<br>Port<br>Status<br>DataSources |
| FCM Managed Server | Host<br>Port<br>Status<br>DataSources |
| Account Reconciliation Web Application | Version<br>State<br>DB Type |
| FinancialCloseTaxOpCommon Web Application | Version<br>State<br>DB Type |
| EPM-FCM-LIBRARIES library | Version<br>State<br>DB Type |
| Authentication Providers | DefaultAuthenticator<br>Control Flag<br>EPMIdentityAsserter<br>fcm_valid_users role is created correctly<br>virtualize flag is true<br>LibOVD is enabled |
| External Authenticators | Lists the authentication providers |

5. Look for failed tests, diagnose, and fix problems.
6. Run Account Reconciliation Manager Validation Tool again until all tests pass.

15

# Using Independent Essbase 21c with EPM System

You can now use Oracle Hyperion Planning and Oracle Hyperion Profitability and Cost Management applications, Oracle Hyperion Financial Reporting from an Oracle Enterprise Performance Management System deployment to report on Oracle Essbase cubes in a Oracle Essbase 21c deployment integrated with EPM Shared Services.

To use Essbase 21c from an EPM System deployment:

1. Install and configure Essbase 21c.
   For information about independently installing and configuring Essbase 21c, see Installing Oracle Essbase in *Essbase Independent Deployment*.
2. For information about configuring Essbase 21c with Shared Services, see EPM Shared Services Authentication in *Essbase Independent Deployment*.
3. For information about configuring Financial Reporting data source to Essbase 21c. See Managing Database Connections.

For more information about licensing an independent usage of Essbase 21c, see the Oracle Enterprise Performance Management Licensing Guide.

## Using Essbase 21c with Planning and Profitability Applications

**Registry changes**

After updating EPM to Release 11.2.15 and configuring EPM products (including OHS Web Server configuration), follow these steps to update the Registry values:

1. At the command prompt, change the directory to `EPM_ORACLE_INSTANCE/epmsystem1/bin`.
2. Run the following commands to update the Analytic Provider Services (APS) registry values:
   Update Essbase Provider Services Logical Web App [LOGICAL_WEB_APP]- host and port to point to Essbase 21c Analytic Provider Services (APS) `host/port`:

   ```
   epmsys_registry.bat/.sh updateproperty "#<Object ID>/@port" 1234
   epmsys_registry.bat/.sh updateproperty "#<Object ID>/@host" hostName
   epmsys_registry.bat/.sh updateproperty "#<Object ID>/@localhost_name"
   hostName
   ```

   Ensure that you replace "`<Object ID>`" with the Analytic Provider Services (APS) web application **LOGICAL_WEB_APP** component ID, which is available in the Registry Report that is generated after you complete the Essbase configuration.

> **Note:**
>
> Analytic Provider Services (APS) Logical Web App is **LOGICAL_WEB_APP** component with property **webAppType** as **PROVIDER_SERVICES_WEB_APP**.

# A
# Ports

This appendix contains information about default port numbers for Oracle Enterprise Performance Management System products including where the port can be configured.

> **Caution:**
>
> These ports are not meant to be used to access a product. For information on starting a product, see Starting and Stopping EPM System Products.

## Default Ports and Shared Services Registry

During the configuration process, default port numbers for most Oracle Enterprise Performance Management System products are automatically populated in Oracle Hyperion Shared Services Registry. During configuration using EPM System Configurator, you can change the default numbers. Each port number on the machine must be unique. (The same product on different machines can have the same port number.) If an error message similar to "port already in use" or "bind error" is displayed, a port number conflict may exist.

If the default port is already in use on the machine, or if there is a conflict, EPM System Configurator will not continue. If the default port number is not changed, the software is configured with the default values.

## WebLogic Administration Server Port

**Table A-1 WebLogic Administration Server Port**

| Default Port Number | Where Configurable |
|---|---|
| 7001 | The WebLogic Administration Server port is specified during configuration. To change the default port, use the WebLogic Administration Console. |

## Oracle Enterprise Manager Java Web Application Port

**Table A-2 Oracle Enterprise Manager Java Web Application Port**

| Default Port Number | Where Configurable |
|---|---|
| 7001 | The Oracle Enterprise Manager Java Web Application port is configured when you create the domain in EPM System Configurator. |

# SSL Ports

For more information about configuring SSL ports, see *Oracle Enterprise Performance Management System Security Configuration Guide*.

# Foundation Services Ports

See these sections for information about Oracle Hyperion Foundation Services ports:

- Foundation Services Ports
- Calculation Manager Java Web Application Ports

## Foundation Services Ports

The following table describes the Oracle Hyperion Foundation Services Managed Server Java web application ports and where you can configure them. Foundation Services Managed Server includes Oracle Hyperion Shared Services, Oracle Hyperion Enterprise Performance Management Workspace, and Foundation Web Service.

**Table A-3 Foundation Services Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 28080 | EPM System Configurator |
| SSL listen port | 28443 | EPM System Configurator |

**Table A-4 Web Server Ports**

| Server | Default Server Port | Where Configurable |
|---|---|---|
| Oracle HTTP Server | 19000 | *MIDDLEWARE_HOME*/user_projects/epmsystem1/httpConfig/ohs/config/fmwconfig/components/OHS/ohs_component/httpd.conf; configurable in EPM System Configurator. |

## Calculation Manager Java Web Application Ports

**Table A-5 Calculation Manager Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8500 | EPM System Configurator |
| SSL listen port | 8543 | EPM System Configurator |

# Essbase Ports

**Table A-6 Essbase Default Service Ports**

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Oracle Essbase Agent | 1423 | EPM System Configurator |
| Essbase server applications (ESSSVR) | 31768–32768 (two ports per process) | EPM System Configurator |
| Essbase SSL Agent | 6423 | EPM System Configurator |
| Essbase Managed Server Port | 9010 | |
| Essbase Managed Server Secure Port | 9020 | |
| Node Manager Port | 9556 | |

**Note:**

If you do not specify Essbase port numbers in EPM System Configurator, the default ports are used.

**Table A-7 Administration Services Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Admin Server Port | 7010 | EPM System Configurator |
| Admin Server Secure Port | 7020 | EPM System Configurator |
| EAS Server Port | 9110 | EPM System Configurator |
| EAS Server Secure Port | 9120 | EPM System Configurator |

**Table A-8 Provider Services Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 9010 | EPM System Configurator |
| SSL listen port | 9020 | EPM System Configurator |

# Financial Reporting Ports

**Table A-9 Financial Reporting Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8200 | EPM System Configurator |
| SSL listen port | 8243 | EPM System Configurator |

**Table A-10 Financial Reporting Default Service Ports**

| Service | Default Port Number | Where Configurable |
|---|---|---|
| RMI Services and Remote ADM Server | 8205-8228<br>Each Financial Reporting Java Web Application uses two ports, one for RMI services and one for Remote ADM Server (e.g., first Financial Reporting Java Web Application uses ports 8205 and 8206). | EPM System Configurator |

# Financial Performance Management Applications Ports

See these sections for information about Oracle's Hyperion Financial Performance Management Applications ports:

- Financial Management Ports
- Financial Close Management Ports
- Planning Ports
- Profitability and Cost Management Ports

## Financial Management Ports

**Table A-11 Financial Management Java Web Application Port**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 7363 | EPM System Configurator |
| SSL listen port | 7365 | EPM System Configurator |

**Table A-12 Financial Management Server Port**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Port | 9091 | EPM System Configurator |
| SSL Port | 9092 | EPM System Configurator |
| Datasource Start Port | 10001 | EPM System Configurator |
| Datasource End Port | 10020<br>HFM uses ports in the range of 10001-10020 | EPM System Configurator |

## Financial Close Management Ports

The following table describes the Oracle Hyperion Financial Close Management ports and where you can configure them.

**Table A-13 Financial Close Management Java Web Application Ports**

| Type of Port | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8700 | EPM System Configurator |
| SSL listen port | 8743 | EPM System Configurator |

## Tax Management Ports

**Table A-14 Tax Management Java Web Application Port**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Oracle Hyperion Tax Governance Port | 22200 | EPM System Configurator |
| Tax Governance SSL Port | 23243 | EPM System Configurator |
| Oracle Hyperion Tax Provision Port | 22200 | EPM System Configurator |
| Tax Provision SSL Port | 23243 | EPM System Configurator |

## Planning Ports

**Table A-15 Planning Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8300 | EPM System Configurator |
| SSL listen port | 8343 | EPM System Configurator |

**Table A-16 Planning RMI Server Port**

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Oracle Hyperion Planning RMI Server | 11333 | EPM System Configurator |

## Profitability and Cost Management Ports

**Table A-17 Profitability and Cost Management Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 6756 | EPM System Configurator |
| SSL listen port | 6743 | EPM System Configurator |

# Data Management Ports

See these sections for information about Oracle's Data Management ports.

- FDMEE Ports
- Data Relationship Management Ports

# FDMEE Ports

The following table describes the Oracle Hyperion Financial Data Quality Management, Enterprise Edition Java web application ports and where you can configure them.

**Table A-18 FDMEE Java Web Application Ports**

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 6550 | EPM System Configurator |
| SSL listen port | 6553 | EPM System Configurator |

# Data Relationship Management Ports

The following table describes the Oracle Data Relationship Management default service ports and where you can configure them.

**Table A-19 Data Relationship Management Default Service Port**

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Data Relationship Management server applications | 5200–5400 | `drm-config.xml` using the Data Relationship Management Console. |

The following table describes the Data Relationship Management Web server ports and where you can configure them.

**Table A-20 Data Relationship Management Web Server Ports**

| Default Web Server Ports | Where Configurable |
|---|---|
| 80 (HTTP) or 443 (when SSL is enabled) | Microsoft Internet Information Services (IIS) Manager Console. (Change the TCP port value setting.) |

# B
# Essbase URLs

In Essbase 11g, for independent deployment, Provider Services is the middle-tier data-source provider to Oracle Essbase for Java API, Smart View, and XML for Analysis (XMLA) clients. In Essbase 21c, Provider Services functionality is integrated with WebLogic. Update the client URLs to the current format:

**Table B-1 Essbase URLs**

| Clients | Former URL for Connecting Provider Services to the specified Client | New URL in Essbase 21c |
|---|---|---|
| Java API | `http://server_name:port/aps/JAPI` | `http://server_name:port/essbase/japi` |
| Smart View | `http://server_name:port/aps/SmartView` | `http://server_name:port/essbase/smartview` |
| XML for Analysis (XMLA) | `http://server_name:port/aps/XMLA` | `http://server_name:port/essbase/xmla` |
| MaxL | `http[s]://server_name:port/aps/Essbase` | `http[s]://server_name:port/essbase` |
| CLI | NA | `http[s]://server_name:port/essbase` |
| Planning Data Source | `http://<host>:<port>/aps/Essbase?ClusterName=<EssCluster-1>` | `http://<server>:<port>/essbase/agent?ClusterName=<Essbase Cluster Name>` where EssbaseCluster-1 is the name of the cluster and `<port>` is the number for the Web Server port. |

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C

# Essbase Install and Deployment Location

**Table C-1 Essbase Install and Deployment Location**

| 11.2.15 Essbase | Installation Location |
|---|---|
| Essbase Product Home | `MIDDLEWARE_HOME\essbase` |
| Essbase Domain Home | `MIDDLEWARE_HOME\user_projects\domains\essbase_domain` |
| Essbase Config Path (**Essbase.cfg**) | `ESSBASE_DOMAIN_HOME\config\fmwconfig\esconfig\essbase` |
| Essbase Path | `MIDDLEWARE_HOME\essbase\products\Essbase\EssbaseServer` |
| Application Directory (**ARBORPATH**) | `MIDDLEWARE_HOME\user_projects\applications\essbase` |
| Essbase Logs Main Directory | `ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs` |
| Provider Services Log | `ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\aps\apsserver.log` |
| Essbase platform Log | `ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\platform.log` |
| Essbase agent Log | `ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\jagent.log` |
| Essbase application Log | `ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\essbase\app\<application-name>\<application-name>_ODL.log` |
| Essbase Runtime | `ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\essbase\APP\Vision\Vision_ODL.log` |
| | `MIDDLEWARE_HOME\essbase\clients\Essbase\EssbaseRTC` |
| | `MIDDLEWARE_HOME\essbase\common\EssbaseJavaAPI` |

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# D
# Essbase Logs Location

**Table D-1 Essbase Logs Location**

| 11.2.15 Essbase | Installation Location |
|---|---|
| Essbase Logs Main Directory | ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs |
| Provider Services log | ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\aps\apsserver.log |
| Essbase Platform log | ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\platform.log |
| Essbase Agent log | ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\jagent.log |
| Essbase Application log | ESSBASE_DOMAIN_HOME\servers\essbase_server1\logs\essbase\essbase\app\<application-name>\<application-name>_ODL.log |
| Essbase Upgrade log | EPM_ORACLE_HOME\common\utilities\EssbaseLCMUtility\essbaseupgrade.log |
| Essbase Upgrade status | EPM_ORACLE_HOME\common\utilities\EssbaseLCMUtility\EssbaseUpgradeStatus.xml |
| Essbase Install logs | EPM_ORACLE_HOME\diagnostics\logs\install\essbaseserver-install.log |
| | EPM_ORACLE_HOME\diagnostics\logs\install\ess_upgrade_err.log |
| | EPM_ORACLE_HOME\diagnostics\logs\install\ess_upgrade_out.log |
| Essbase Configuration Logs | EPM_ORACLE_INSTANCE\diagnostics\logs\config\essbase21c_config.log |
| | USERTEMP\essbase_config_<DATE> |
| Location of response file | EPM_ORACLE_HOME\common\config\11.1.2.0\config_windows.rsp |
| Location of Input Properties | EPM_ORACLE_HOME\common\utilities\EssbaseLCMUtility\resources\UpgradePS4To21cScripts\input.properties |

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# E

# JDBC URL Attributes

## JDBC Drivers

During configuration, on the Configure Database page, click Advanced to specify additional JDBC parameters, which are used by Oracle Enterprise Performance Management System JDBC drivers to connect to the database.

The following table describes the format to use to enter the parameters if you are using JDBC drivers.

| Database | Format |
|---|---|
| Oracle Database | `jdbc:oracle:thin:@`*`hostname`*`:`*`port`*`:`*`SID`* |
| SQL Server | `jdbc:weblogic:sqlserver://`*`hostname`*`:`*`port`*`;databaseName=`*`databaseName`* |

The following table describes additional information about the parameters:

| Property | SQL Server |
|---|---|
| LOADLIBRARYPATH | Yes |
| MAXPOOLEDSTATEMENTS | Yes |
| ALTERNATESERVERS | Yes |
| CONNECTIONRETRYCOUNT | Yes |
| CONNECTIONRETRYDELAY | Yes |
| LOADBALANCING | Yes |
| DYNAMICSECTIONS | |
| CREATEDEFAULTPACKAGE | |
| REPLACEPACKAGE | |
| DATABASENAME | Yes |

For Oracle Database parameters, see the Oracle Thin JDBC Driver documentation.

For more information, see Oracle® Database JDBC Developer's Guide 19c .

## URL for Oracle RAC

To provide client-side failover and load-balancing for Oracle RAC, enter the URL in the form of:

*`host`*`:`*`port`*`/`*`serviceName`*

> **Note:**
>
> Using Oracle RAC with Oracle Enterprise Performance Management System also requires the SCAN Listener to be enabled.

## LDAP-Based URL for Oracle Database

Oracle Database supports authentication using an LDAP server. To use LDAP-based database authentication, enter the URL in the following format:

```
jdbc:oracle:thin:@ldap://oid:5000/mydb1,cn=OracleContext,dc=myco,dc=com
```

## URL for SSL

To enable SSL for the JDBC connections, during configuration, on the Configure Database page, click Advanced and select "Use secure connection to the database (SSL)."

Use the following additional parameters when JDBC SSL is selected and you are using Microsoft SQL Server.

- `ENCRYPTIONMETHOD=SSL`
- `TRUSTSTORE=`*`Path to trust store`*
- `TRUSTSTOREPASSWORD=`*`trust store password`*
- `VALIDATESERVERCERTIFICATE="true"`

Use the following URL format when JDBC SSL is selected and you are using Oracle Database.

```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)

(HOST=host1)(PORT=1521))

(CONNECT_DATA=(SERVICE_NAME=servicename)

)

)
```

F

# EPM System Services

This appendix provides details about start menus, service names, and start and stop scripts for each Oracle Enterprise Performance Management System component.

Note that Start menu items for Java web applications are available only on the machine on which the web server is installed.

If you deploy components to a single managed server, the managed server name is `EPMServer`*`N`*, where *`N`* is 0 for the managed server, and 1 or higher if you scale out the single managed server.

You can monitor the health and performance of the EPM System Java web applications using Oracle Enterprise Manager, which is automatically deployed with EPM System Configurator if you deploy Java web applications with Oracle WebLogic Server. You can see the status of the servers and the Java web applications running, the servers they are running on, and the ports they are listening on. See "Using Enterprise Manager to Monitor EPM System Java Web Applications" in the *Oracle Enterprise Performance Management System Deployment Options Guide*.

## Web Server

The Oracle HTTP Server service is managed and monitored with Node Manager. See Starting and Stopping Oracle HTTP Server.

## Foundation Services Application Server

The following table describes the services and processes for the Oracle Hyperion Foundation Services application server, which includes Oracle Hyperion Shared Services, and Oracle Hyperion Enterprise Performance Management Workspace Java web applications.

**Table F-1 Foundation Services Application Server Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, then *`EPM_ORACLE_INSTANCE_NAME`*, and then **Start FoundationServices (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9FoundationServices_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Foundation Services - Managed Server (*instanceName*) |
| **Description** | Hyperion Foundation Services support Hyperion applications, including authentication, user provisioning, task flow management, data and metadata synchronization |
| **Windows Startup Script** | *`EPM_ORACLE_INSTANCE`*`/bin/startFoundationServices.bat` |
| **Linux Startup Script** | *`EPM_ORACLE_INSTANCE`*`/bin/startFoundationServices.sh` |

**Table F-1 (Cont.) Foundation Services Application Server Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopFoundationServices.bat |
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopFoundationServices.sh |

# Calculation Manager Application Server

The following table describes the services and processes for Oracle Hyperion Calculation Manager.

**Table F-2 Calculation Manager Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start CalcMgr (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9CALC_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion CALC Manager - Java Web Application (*instanceName*) |
| **Description** | Provide access service to CALC Manager Web Server |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startCalcMgr.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startCalcMgr.sh |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopCalcMgr.bat |
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopCalcMgr.sh |

# Essbase Server

The following table describes additional methods for starting and stopping Oracle Essbase Server.

**Table F-3 Starting and Stopping Essbase Server**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, then **Start Essbase**<br>This command launches `startEssbase.bat` |
| **Registered Service Name** | `EssbaseService` |
| **Display Name in Windows Services Control Panel** | `Oracle Essbase Service` |

**Table F-3 (Cont.) Starting and Stopping Essbase Server**

| Information Type | Details |
|---|---|
| **Windows Startup Script** | • Essbase Server — *ESSBASE_DOMAIN_HOME*/esstools/bin/start.cmd<br>This command launches Essbase's start.cmd<br>• essmsh —*ESSBASE_DOMAIN_HOME*/esstools/bin/startMAXL.cmd |
| **Linux Startup Script** | • Essbase Server — *ESSBASE_DOMAIN_HOME*/esstools/bin/start.sh<br>• essmsh — *ESSBASE_DOMAIN_HOME*/esstools/bin/startMAXL.sh |
| **Windows Stop Script** | Essbase Server — *ESSBASE_DOMAIN_HOME*/esstools/bin/stop.cmd |
| **Linux Stop Script** | Essbase Server — *ESSBASE_DOMAIN_HOME*/esstools/bin/stop.sh |

Stopping Essbase Server can take some time, depending on how many Essbase applications are running on the server. To stop Essbase Server, you need Administrator permissions.

See Database Administrator's Guide for Oracle Essbase for more information about shutting down Essbase Server.

For more information about stopping Essbase Server, see Database Administrator's Guide for Oracle Essbase

.

# Financial Reporting Application Server

The following table describes the services and processes for the Oracle Hyperion Financial Reporting application server, which includes the Financial Reporting Print Server, Financial Reporting Web Studio, and Document Repository.

**Table F-4 Financial Reporting Application Server Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start FinancialReporting (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9FRReports_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Financial Reporting - Java Web Application (*instanceName*) |
| **Description** | Provide access service to Hyperion Financial Reporting Web Server |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startFinancialReporting.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startFinancialReporting.sh |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopFinancialReporting.bat |

**Table F-4 (Cont.) Financial Reporting Application Server Services and Processes**

| Information Type | Details |
|---|---|
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopFinancialReporting.sh |

# Planning Application Server

The following table describes the services and processes for the Oracle Hyperion Planning application server.

**Table F-5 Planning Application Server Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start Planning (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9Planning_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Planning - Java Web Application *(instanceName)* |
| **Description** | Provides access service to Planning Web server |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startPlanning.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startPlanning.sh |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopPlanning.bat |
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopPlanning.sh |

In addition, Planning uses the Hyperion RMI Registry.

**Table F-6 Hyperion RMI Registry Application Server Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | N/A |
| **Registered Service Name** | HyS9RMI Registry_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion RMI Registry *(instanceName)* |
| **Description** | Provides access service to Oracle Hyperion RMI Registry |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startRMI.bat |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopRMI.bat |

# Financial Management Server

The following table describes the services and processes for Oracle Hyperion Financial Management.

**Table F-7 Financial Management Server**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | N/A |
| **Registered Service Name** | HyS9FinancialManagementJavaServer_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Financial Management - Java Server (*instanceName*) |
| **Description** | Oracle Hyperion Financial Management - Java Server |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startHFMJavaServer.bat |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopHFMJavaServer.bat |

**Note:**

The synchronization between Financial Management application servers is based on system time. Changing the clock can affect this synchronization. For the time change to and from Daylight Savings Time, Oracle recommends that you stop the servers before the time change and restart them afterward.

# Financial Management Application Server

The following table describes the services and processes for the Oracle Hyperion Financial Management Java web application server, which includes FM Web services and FM ADF Java web application.

**Table F-8 Financial Management Java Web Application Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start HFMWeb (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9FinancialManagementWeb_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Financial Management - Web Tier (*instanceName*) |
| **Description** | Provides JEE support to Financial Management. |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startHFMWeb.bat |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopHFMWeb.bat |

# Profitability and Cost Management Application Server

The following table describes the services and processes for Oracle Hyperion Profitability and Cost Management.

**Table F-9 Profitability and Cost Management Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start Profitability (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9HyS9PftWeb_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Profitability - Java Web Application (*instanceName*) |
| **Description** | Provides a Workspace module for Profitability. |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startProfitability.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startProfitability.sh |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopProfitability.bat |
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopProfitability.sh |

# Financial Close Management Application Server

The following table describes the services and processes for the Oracle Hyperion Financial Close Management application server.

> **Note:**
>
> Ensure that you complete the post-configuration tasks before you start Financial Close Management. See Financial Close Management and Tax Governance Manual Configuration Tasks.

> **Note:**
>
> Before you start Financial Close Management, note the following server startup order:

- WebLogic Administration Server
- Hyperion Foundation Services Managed Server
- Oracle HTTP Server - See Starting and Stopping Oracle HTTP Server
- In any order:
  - Financial Close Management Java web application
  - Oracle Hyperion Financial Management Web Services Managed Server, if you're using Financial Management with Financial Close Management
  - Oracle Hyperion Financial Reporting Java web application, if you're using Financial Reporting with Financial Close Management

– Oracle Hyperion Financial Data Quality Management, Enterprise Edition, if you are using Account Reconciliation Manager

**Table F-10 Financial Close Management Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start FinancialClose (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9FinancialClose_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Financial Close Management - Java Web Application *(instanceName)* |
| **Description** | Provide access service to Financial Close Manager Java Web Application |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startFinancialClose.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startFinancialClose.sh |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopFinancialClose.bat |
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopFinancialClose.sh |

# Tax Management Application Server

The following table describes the services and processes for Tax Management.

For Oracle Hyperion Tax Provision, Oracle Hyperion Financial Management must also be running.

If you are using Oracle Hyperion Tax Governance, start services in the order listed in Financial Close Management Application Server.

**Table F-11 Tax Management Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start TaxManagement (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9TaxManagement_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion Tax Management - Java Web Application (*instanceName*) |
| **Description** | Provides access service to Tax Management Java Web Application. |
| **Windows Startup Command** | *EPM_ORACLE_INSTANCE*/bin/startTaxManagement.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startTaxManagement.sh |
| **Windows Stop Command** | *EPM_ORACLE_INSTANCE*/bin/stopTaxManagement.bat |
| **Linux Stop Script:** | *EPM_ORACLE_INSTANCE*/bin/stopTaxManagement.sh |

# Data Relationship Management

The following table describes the services and processes for Oracle Data Relationship Management.

**Table F-12 Data Relationship Management Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, then Data Relationship Management, then Configuration Console or `EPM_ORACLE_HOME/ products/ DataRelationshipManagement/server/bin/ drm-server-console.exe` |
| **Registered Service Name** | Oracle DRM Service |
| **Display Name in Windows Services Control Panel** | Oracle DRM Service |
| **Description** | Handles starting and stopping of required server applications in the Oracle DRM environment |
| **Windows Startup Command** | Net start "Oracle DRM Service" |
| **Windows Stop Command** | Net stop "Oracle DRM Service" |

In addition, Data Relationship Management has a web tier component that runs in IIS.

# Data Relationship Management Analytics

The following table describes the services and processes for Oracle Data Relationship Management Analytics.

**Table F-13 Data Relationship Management Analytics Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | N/A |
| **Registered Service Name** | Oracle DRM Managed Server (DRMServer) |
| **Display Name in Windows Services Control Panel** | Oracle DRM Managed Server (DRMServer) |
| **Description** | N/A |
| **Windows Startup Command** | net start "Oracle DRM Managed Server (DRMServer)" |
| **Windows Stop Command** | net stop "Oracle DRM Managed Server (DRMServer)" |

# FDMEE Application Server

The following table describes the services and processes for Oracle Hyperion Financial Data Quality Management, Enterprise Edition.

**Table F-14 FDMEE Services and Processes**

| Information Type | Details |
|---|---|
| **Windows Start Menu Command** | Select **Start**, then **Oracle EPM System**, and then **Start ErpIntegrator (Oracle WebLogic 10)** |
| **Registered Service Name** | HyS9aifWeb_*instanceName* |
| **Display Name in Windows Services Control Panel** | Oracle Hyperion FDM Enterprise Edition - Java Web Application (*instanceName*) |
| **Description** | Provides a Workspace module for FDM EE. |
| **Windows Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startERPIntegrator.bat |
| **Linux Startup Script** | *EPM_ORACLE_INSTANCE*/bin/startERPIntegrator.sh |
| **Windows Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopERPIntegrator.bat |
| **Linux Stop Script** | *EPM_ORACLE_INSTANCE*/bin/stopERPIntegrator.sh |

G

# Performing Manual Configuration Tasks in a New Deployment

After configuration, you must configure user directories, provision the functional administrator, and deactivate the default administrator (admin) account. See *Oracle Enterprise Performance Management System User Security Administration Guide*.

To set up Oracle Enterprise Performance Management System components to work with Oracle Web Services Manager, see the *Oracle Enterprise Performance Management System Deployment Options Guide*.

See the *Oracle Enterprise Performance Management System Deployment Options Guide* for additional optional tasks you can perform to customize your deployment.

See your product's Administration Guide for additional tasks to perform.

## Updating to the Latest Java Patch Level

- Each release of Oracle Enterprise Performance Management System installs the Java 8 JDK, which incorporates the highest available patch level at the time of release. Between releases, you might be required to patch the JDK.
- After installing and configuring EPM System, follow these steps to update your existing version of the JDK to a more recent version. Perform these steps on all Middleware Home directories for the EPM System deployment and on all EPM Oracle instances across all hosts.
- The source JDK refers to the JDK an existing installation is configured to use. The target JDK version is the version that the installation is being updated to use.
- Check with Oracle Support for download locations for newer Java 8 distributions.

**Updating Java for EPM System (Windows and Linux)**

JDK8 and JRE8 are installed to a directory where the directory name does not include the complete version of Java.

For example,

JDK: `Oracle\Middleware\jdk`

**Optional**: To update Java:

1. Stop all EPM System services.
2. Perform these actions on MIDDLEWARE_HOME:
   a. Rename the current JDK folder to `Oracle\Middleware\jdk.save`.
   b. Install the target JDK into `Oracle\Middleware\jdk`.
3. Start all EPM System services.

If you're using the default Java keystore to store public/private certificates, make sure to copy it from the old JRE location to the new location after completing the patching:

```
Oracle\Middleware\jdk\jre\lib\security\cacerts
```

# Financial Close Management and Tax Governance Manual Configuration Tasks

This section describes additional tasks required to configure Oracle Hyperion Financial Close Management and Oracle Hyperion Tax Governance. Perform these tasks after you install and configure Financial Close Management or Tax Governance.

> **Caution:**
>
> You **must** perform these tasks before you can start and run Financial Close Management or Tax Governance. Perform the tasks in the order in which they are listed.

The following table describes Financial Close Management and Tax Governance manual configuration tasks.

> **Note:**
>
> For the procedures that follow, note that if you selected Production Mode when you created the WebLogic domain, to make changes in the WebLogic Administration Console you must first click **Lock & Edit** in the Change Center. After you make the changes, click **Activate Changes** in the Change Center.

**Table G-1 Financial Close Management and Tax Governance Manual Configuration Tasks**

| Task | Reference |
|---|---|
| Configure the WebLogic Domain to connect to Oracle Internet Directory, Microsoft Active Directory (MSAD), or SunOne | Configuring the WebLogic Domain to OID, MSAD, SunOne |
| Start managed servers in order. | Start Managed Servers |
| If you are using Microsoft SQL Server, remove `EDNLocalTxDataSource` and `EDNDataSource`. | |
| Raise the maximum capacity of the connection pool. | Raising the Maximum Capacity in the Connection Pool |
| Increase the connection pool of the external LDAP provider. | Increasing the Connection Pool of the External LDAP Provider |
| Target shared libraries. | Targetting Shared Libraries |

After performing these steps you can also configure Account Reconciliation Manager to work with Oracle Hyperion Financial Data Quality Management, Enterprise Edition and create and manage Integration Types. See the *Oracle Hyperion Financial Close Management Administrator's Guide*. You can download integration `xml` files from My Oracle Support.

# Start Managed Servers

Start each managed server in the following order:

- WebLogic Administration Server
- Hyperion Foundation Services Managed Server
- Oracle HTTP Server - See Starting and Stopping Oracle HTTP Server
- In any order:
  - Oracle Hyperion Financial Close Management Java web application, if you are using Financial Close Management
  - Oracle Hyperion Tax Governance Java web application, if you are using Tax Governance
  - Oracle Hyperion Financial Management Web Services Managed Server, if you are using Financial Management with Financial Close Management
  - Oracle Hyperion Financial Reporting Java web application, if you are using Financial Reporting with Financial Close Management
  - Oracle Hyperion Financial Data Quality Management, Enterprise Edition, if you are using Account Reconciliation Manager

# Raising the Maximum Capacity in the Connection Pool

If necessary, fine tune the data source to size the connection pool.

To raise the maximum capacity in the connection pool:

1. In the WebLogic Administration Console (`http://`*`WebLogic_Admin_Host`*`:`*`WebLogic_Admin_Port`*`/console`), select **Services**, then **JDBC**, and then **Datasources**.
2. Select your data source, then **Connection Pool**, and then **Maximum Capacity**.
3. Edit settings to increase capacity as follows:
   - `financialclose_datasource`—150
   - `financialclosecommon_datasource`—150

   If resource errors specific to these data sources are logged, increase their capacity:
   - `EPMSystemRegistry`
   - `supplementaldata_datasource`
   - `taxoperations_datasource`
   - `taxsupplementalschedules_datasource`

> **Note:**
>
> You can increase the capacity for each data source by a different amount, depending on the needs for your installation.

If the Oracle Hyperion Financial Close Management or Oracle Hyperion Tax Governance log includes this error message: `java.sql.SQLException: Could not retrieve datasource via JNDI url 'jdbc/`*data source*`' weblogic.jdbc.extensions.PoolDisabledSQLException: weblogic.common.resourcepool.ResourceDisabledException: Pool` *data source* `is Suspended, cannot allocate resources to applications..]`, then you have exceeded the maximum connections allowed in the connection pool for the specified data source, and you need to increase the capacity of the connection pool.

## Increasing the Connection Pool of the External LDAP Provider

To increase the connection pool of external LDAP provider:

1. Shut down all servers (Admin with all managed server) if they are running.
2. Go to *domain_home*`\config\fmwconfig\ovd\default`.
3. Make a backup of `adapters.os_xml`.
4. Open `adapters.os_xml` and find `<ldap id="`*XYZ*`" version="0">`, where *XYZ* is the name of the external LDAP provider configured from WebLogic Admininstration Console.
5. Change `<maxPoolSize>` from 10 to 100 or 150. For example:

```
<pageSize>1000</pageSize>
<referals>false</referals>
<heartBeatInterval>60</heartBeatInterval>
<timeout>120000</timeout>
<maxPoolSize>100</maxPoolSize>
<maxPoolWait>1000</maxPoolWait>
<maxPoolChecks>10</maxPoolChecks>
<quickFail>false</quickFail>
<escapeSlashes>true</escapeSlashes>
<kerberos>false</kerberos>
<useDNS>No</useDNS>
</ldap>
```

## Configuring the WebLogic Domain to OID, MSAD, SunOne

This procedure is required to configure the WebLogic domain, or in the case of Oracle Hyperion Financial Close Management or Oracle Hyperion Tax Governance, to communicate with an external provider, such as OID, MSAD, or SunOne. Oracle Hyperion Shared Services must also be configured to work with this external provider. Follow the sections specific to your provider.

> **Note:**
>
> Financial Close Management and Tax Governance do not support Shared Services Native Directory. The Web Services features of Oracle Hyperion Profitability and Cost Management, Oracle Hyperion Provider Services, Oracle Hyperion Financial Data Quality Management, Enterprise Edition, and Oracle Hyperion Financial Management do not work with Shared Services Native Directory. See the *Oracle Hyperion Enterprise Performance Management System User and Role Security Guide* for more information.

To connect OID, MSAD, or SunOne to the WebLogic Server:

1. Log in to the WebLogic Administration Console if you are not already logged in.
2. Click **Security Realms** on the left, click **myrealm**, and then click the **Providers** tab.
3. Click **Add**, enter the following details, and then click **OK**.

   For OID:

   - Name - **OID**
   - Type - **OracleIntenetDirectoryAuthenticator**

   For MSAD:

   - Name - **MSAD**
   - Type - **ActiveDirectoryAuthenticator**

   For SunOne:

   Name - **SunOne**

   You can ignore the prompt to restart the server; you will be restarting at the end of this procedure.
4. Click the provider you just added, click the **Provider Specific** tab, enter the following details for your provider, and then click **Save**.

   - Host
   - Port
   - Principal
   - Credential
   - User Base DN
   - Group Base DN
   - User from Name Filter (MSAD only)
   - User Name Attribute (MSAD only)

   You can leave the rest of the default values unchanged.
5. Click **OID**, **MSAD**,or **SunOne**, and for **Control Flag**, select `SUFFICIENT`.
6. Restart WebLogic Server.

> **Note:**
>
> When configuring the external provider in Shared Services, make the provider a trusted source to ensure that SSO works.

> **Note:**
>
> For more information on updating the domain configuration, see Update the Domain Configuration.

# Targetting Shared Libraries

To target shared libraries to the FinancialClose cluster:

1. Log in to the WebLogic Administration Console.
2. Click **Deployments**.
3. Click **epm-misc-libraries** and add **FinancialClose** cluster as its target.
4. Click **epm-aif-odi-libraries** and add **FinancialClose** cluster as its target.
5. Click **oracle.odi-sdk** and add **FinancialClose** cluster as its target.