# Oracle® Hyperion Enterprise Performance Management System

## Installation Start Here

RELEASE 11.1.1.1

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ENTERPRISE PERFORMANCE MANAGEMENT SYSTEM

EPM System Installation Start Here, 11.1.1.1



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# 1 Installation Documentation Roadmap

You can find Oracle Hyperion Enterprise Performance Management System installation documentation in the Oracle Documentation Library (http://www.oracle.com/technology/documentation/epm.html) on Oracle® Technology Network. System requirements can be found in the *Oracle Hyperion Enterprise Performance Management System Certification Matrix* (http://www.oracle.com/technology/products/bi/hyperion-supported-platforms.html)

For faster access to the documentation for a specific release, you can use the Enterprise Performance Management Documentation Portal (http://www.oracle.com/us/solutions/ent-performance-bi/technical-information-147174.html), which also contains links to EPM Supported Platform Matrices, My Oracle Support, and other information resources.

Use this guide to help plan your EPM System product installation and configuration.

Table 1 lists the documents to consult for instructions on performing essential installation tasks.

**Table 1 Documentation That You Need**

| Task | Related Documentation |
|---|---|
| Planning the installation | This guide, *Oracle Hyperion Enterprise Performance Management System Installation Start Here* |
| • Installing and configuring EPM System products<br>• Automatically deploying EPM System products<br>• Starting EPM System products<br>• Validating the installation<br>• Upgrading EPM System products | *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide* |
| Securing EPM System and provisioning users | *Oracle Hyperion Enterprise Performance Management System Security Administration Guide* |

Table 2 lists the documents to consult for additional installation tasks that you might need to perform.

**Table 2 Documentation That You Might Need**

| Task | Related Documentation |
|---|---|
| Manually deploying EPM System products | *Oracle Hyperion Enterprise Performance Management System Manual Deployment Guide* |
| Troubleshooting installations | *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Troubleshooting Guide* |

| Task | Related Documentation |
| --- | --- |
| Creating a backup of product and application data | *Oracle Hyperion Enterprise Performance Management System Backup and Recovery Guide* |
| Migrating from one environment to another | *Oracle Hyperion Enterprise Performance Management System Lifecycle Management Guide* |
| Enabling SSL | *Oracle Hyperion Enterprise Performance Management System SSL Configuration Guide* |
| Clustering EPM System applications for high availability | *Oracle Hyperion Enterprise Performance Management System High Availability Guide* |

# 2 About EPM System Products

**In This Chapter**



Use this chapter to help plan your deployment architecture.

**Note:** To see which product components are required and optional for your products, review the Media Pack Readme on Oracle® E-Delivery (http://edelivery.oracle.com/).

Primary families of EPM System products:

- Oracle's Hyperion® Foundation Services
- Oracle Essbase
- Oracle's Hyperion Reporting and Analysis
- Oracle's Hyperion Financial Performance Management Applications
- Oracle's Data Management

**Note:** For information about how EPM System products integrate with Oracle Business Intelligence Enterprise Edition and Oracle Business Intelligence Publisher, see the *Oracle Business Intelligence New Features Guide* and the *Oracle Business Intelligence Publisher Administrator's and Developer's Guide*, respectively.

## EPM System Product Descriptions

The following sections describe EPM System products.

### Foundation Services

The following table describes Foundation Services products.

| Product | Description |
|---|---|
| Oracle's Hyperion® Shared Services | Shared Services integrates EPM System products to provide user provisioning, lifecycle management, and task flow management. It also provides the Shared Services Registry, a central repository that simplifies product configuration by storing and re-using information for most EPM System products that you install.<br>**Note:** Also includes Oracle's Hyperion® Remote Authentication Module if you run Shared Services on UNIX and authenticate users with NTLM. |
| Oracle Enterprise Performance Management Workspace, Fusion Edition | EPM Workspace provides a consistent and interactive thin-client environment for working with EPM content. EPM Workspace is the Web client for the following products:<br>● Reporting and Analysis<br>● Oracle Hyperion Planning, Fusion Edition<br>● Oracle Hyperion Profitability and Cost Management, Fusion Edition<br>● Oracle Hyperion Financial Management, Fusion Edition<br>● Oracle Hyperion EPM Architect, Fusion Edition<br>● Oracle Hyperion Performance Scorecard, Fusion Edition<br>● Hyperion Calculation Manager<br><br>In addition, BI Publisher and Oracle BI EE can be configured to integrate with EPM Workspace. |
| Performance Management Architect | Performance Management Architect enables creation and deployment of financial applications from a central location. The visual environment provided by Performance Management Architect provides a simple and intuitive user experience for modeling the financial business process, including data, dimensions, and application logic.<br>Performance Management Architect works with the following products:<br>● Calculation Manager<br>● Planning<br>● Financial Management<br>● Oracle Essbase<br>● Profitability and Cost Management |
| Calculation Manager | Calculation Manager is a feature of Performance Management Architect. It provides the graphical interface for building and calculating business rules for Planning and Financial Management applications. |
| Oracle Hyperion Smart View for Office, Fusion Edition | Smart View provides a common Microsoft Office addin for various EPM System products - Essbase, Financial Management, Planning, and Reporting and Analysis. It can also import content from the Reporting and Analysis repository and can perform adhoc analysis on data from Oracle BI EE. Using Smart View, you can view, import, manipulate, distribute, and share data in Microsoft Excel, Word, and PowerPoint interfaces. |
| Oracle Smart Space, Fusion Edition | Smart Space is a personalized information delivery solution that includes gadgets designed specifically for Enterprise Performance Management and Business Intelligence. Smart Space consists of a set of configurable gadgets that run on the desktop, providing continuous access to content from Reporting and Analysis, Oracle Business Intelligence Publisher, Oracle BI Dashboards, Oracle BI Answers and Essbase. Smart Space also includes a development toolkit for creating additional gadgets by using common development languages and methodologies, and a secure instant messaging system for shared decision making. |

## Essbase

The following table describes Essbase products.

| Product | Description |
|---|---|
| Essbase | Essbase is the business analysis server technology that provides an environment for rapid development of custom analytic and enterprise performance management applications. For example, Essbase enables line-of-business personnel to develop and manage analytic applications that model complex scenarios, forecast business trends, and perform "what-if" analyses. Essbase supports extremely fast query response times for vast numbers of users, for large data sets, and for complex business models. It is hot-pluggable across any data source. |
| Oracle Essbase Administration Services | Administration Services is the cross-platform administration tool for Essbase. It consists of Administration Server (a Java middle-tier server), and Essbase Administration Services Console (a thin-client console). |
| Oracle's Hyperion® Business Rules | Business Rules, which is installed and configured as part of Administration Services, guides users through the creation, execution, and management of business rules on the Essbase Server component of Essbase. Business Rules improves the response time to changing business application needs, shortens application development cycles, increases business user productivity, improves re-use of application components, and increases the overall return on analytic application investments.<br>Classic Planning works with Business Rules. |
| Oracle Essbase Integration Services | Integration Services provides a suite of graphical tools that can be used to create Essbase databases, OLAP models, and metaoutlines. |
| Oracle Hyperion Provider Services | Provider Services is a middle-tier data-source provider to the following products:<br>● Essbase<br>● Planning<br>● Oracle BI EE<br>● Smart View for Office, Java API (Essbase data only)<br>● XMLA clients (Essbase data only)<br>The software supports highly concurrent analytical scenarios and provides scalability and reliability in a distributed Web-enabled enterprise environment. |
| Oracle Hyperion Smart Search Command Line Utility | Smart Search Command Line Utility integrates with leading enterprise search solutions (Google Search Appliance and Oracle Secure Enterprise Search) to provide a familiar search interface. Using simple business terminology, users can obtain structured information from Essbase applications and databases. Information filtered according to user privileges is delivered in data grids and live links in Smart View for Office. |
| Oracle Essbase Studio | Essbase Studio consolidates cube-construction activities into one interface, enabling consistent performance for data load and outline build. |
| Oracle's Hyperion® Application Builder for .NET | Application Builder for .NET provides a comprehensive set of OLAP-aware classes for data navigation, selection, reporting, and visualization to assist you in building custom analytical applications. Application Builder for .NET provides an application development workbench for companies wanting to use the Microsoft .NET Framework to create tailored business performance management solutions. Application Builder for .NET includes the following key features:<br>● .NET Framework compatibility<br>● Web Services-based architecture (SOAP) |

## Reporting and Analysis

The following table describes Reporting and Analysis products.

| Product | Description |
|---|---|
| Oracle's Hyperion® Interactive Reporting | Interactive Reporting provides intuitive user-directed query and analysis capabilities. This business intelligence software delivers these capabilities through an interface that enables users to design dashboards, and then monitor and navigate to relevant information. |
| Oracle Hyperion Financial Reporting, Fusion Edition | Financial Reporting enables generation of formatted, book-quality financial and management reports that comply with regulations and external requirements. Financial Reporting can help you control and increase operational efficiencies. |
| Oracle's Hyperion® SQR® Production Reporting | Production Reporting generates high-volume, presentation-quality formatted reports and provides unparalleled performance—even when the data comes from disparate sources. Production Reporting delivers the business context for key metrics by consolidating information from core business applications throughout the enterprise. |
| Oracle's Hyperion® Web Analysis | Web Analysis delivers online analytical processing (OLAP) analysis, presentation, and reporting for the extended enterprise. |

## Financial Performance Management Applications

The following table describes Financial Performance Management Applications products.

| Product | Description |
|---|---|
| Planning | Planning is a centralized planning, budgeting, and forecasting solution that integrates financial and operational planning processes. Planning provides an in-depth look at business operations and their impact on financials by tightly integrating financial and operational planning models. With Planning, you can meet your immediate financial planning needs and also enable future cross-functional expansion and automated process integration.<br>Planning administrators can create two types of applications: Classic Planning applications, which use Business Rules, and Performance Management Architect Planning applications, which use Calculation Manager business rules. |
| Financial Management | Financial Management is a comprehensive financial systems software application that delivers global collection reporting and analysis in a single, highly scalable solution. Financial Management uses today's most advanced technology, yet it is built to be owned and maintained by the enterprise's finance team.<br>Financial Management users can create applications by using Performance Management Architect or Financial Management Classic. |
| Performance Scorecard | Performance Scorecard is a Balanced Scorecard Collaborative certified application that helps companies clearly articulate strategy and goals, communicate them across the enterprise, and monitor key performance indicators. The software offers you complete strategy- and accountability-mapping capabilities, as well as Web-based message boards, forums, and discussion threads. |
| Oracle Hyperion Strategic Finance, Fusion Edition | Strategic Finance is a financial modeling application that enables executives to identify and understand the full financial impact of alternative corporate strategies. Strategic Finance delivers pre-packaged modeling and forecasting so your finance experts have more time for testing alternative strategies, building contingency plans, and understanding the impact of those strategies and plans on your company's long-term performance. |

| Product | Description |
|---|---|
| Profitability and Cost Management | Profitability and Cost Management is an analytic application for managing the cost and revenue allocations that are necessary to compute profitability for a business segment, such as a product, customer, region, or branch. The application enables you to use cost decomposition, consumption-based costing, and scenario playing to measure profitability, and it provides a meaningful operational decision-support system. |

## Data Management

The following table describes Data Management products.

| Product | Description |
|---|---|
| Oracle's Hyperion® Data Integration Management | Data Integration Management provides a way of uniting disparate data sources across an enterprise. For example, it can integrate data that is stored in multiple warehouses and data marts, relational database management systems (RDBMS), and online analytical processing (OLAP) stores. |
| Oracle Hyperion Financial Data Quality Management, Fusion Edition | FDM is a packaged solution that, through its Web-based guided workflow, helps finance users to develop standardized financial data management processes. Its data preparation server can ease integration and validation of financial data from any source system. To further reduce data integration costs and data mapping complexities, FDM includes EPM adapters for a variety of source and target systems. |
| Oracle Hyperion Data Relationship Management, Fusion Edition | Data Relationship Management enables enterprises to build consistency within master data assets despite endless changes within the underlying transactional and analytical systems. Data Relationship Management provides the industry's first data model-agnostic master data management solution built to enable financial and analytical master data management in dynamic, fast-changing business environments. |

# Architecture

The following tables show the EPM System product architecture, organized by tier. For details about which components are installed on each tier, see the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

## Foundation Services

The following table describes the architecture for Foundation Services products.

| Product | Client Tier | Web Server[1] | Web Application Server | Services Tier |
|---|---|---|---|---|
| Shared Services | | | X | |
| EPM Workspace | | X | X | X |
| Performance Management Architect | X | X | X | X |
| Calculation Manager | | X | X | |

| Product | Client Tier | Web Server[1] | Web Application Server | Services Tier |
|---|---|---|---|---|
| Smart View for Office | X | | | |
| Smart Space | X | | X | X |

[1]If Oracle Application Server is used as the Web application server, Oracle HTTP Server is also required.

## Essbase

The following table describes the architecture for Essbase products.

| Product | Client Tier | Web Server[1] | Web Application Server | Services Tier |
|---|---|---|---|---|
| Essbase | X | | | X |
| Administration Services | X | | X | |
| Integration Services | X | | | X |
| Provider Services | X | | X | |
| Smart Search Command Line Utility | | | X | |
| Essbase Studio | X | | | X |
| Application Builder for .NET | X | | X | |

[1]If Oracle Application Server is used as the Web application server, Oracle HTTP Server is also required.

## Reporting and Analysis

The following table describes the architecture for Reporting and Analysis products.

| Product | Client Tier | Web Server[1] | Web Application Server | Services Tier |
|---|---|---|---|---|
| Interactive Reporting | X | X | | X |
| Financial Reporting | X | X | X | X |
| Production Reporting | X | X | | X |
| Web Analysis | X | X | X | |

[1]If Oracle Application Server is used as the Web application server, Oracle HTTP Server is also required.

## Financial Performance Management Applications

The following table describes the architecture for Financial Performance Management Applications products.

| Product | Client Tier | Web Server[1] | Web Application Server | Services Tier |
|---|---|---|---|---|
| Planning | X | X | X | |
| Financial Management | X | X | | X |
| Performance Scorecard | | X | X | |
| Strategic Finance | X | X | | X |
| Profitability and Cost Management | | X | X | |

[1]If Oracle Application Server is used as the Web application server, Oracle HTTP Server is also required.

## Data Management

The following table describes the architecture for Data Management products.

| Product | Client Tier | Web Server | Web Application Server | Services Tier |
|---|---|---|---|---|
| Data Integration Management | X | | | X |
| FDM | X | X | X | X |
| Data Relationship Management | X | X<br>**Note:** If Oracle Application Server is used as the Web application server, Oracle HTTP Server is also required. | | X |

# Platform Support

EPM System Release 11.1.1.1 supports both Windows and UNIX operating systems. If you are planning to install in a UNIX environment, be sure to carefully read the System Requirements chapter for details on which Windows and UNIX versions are supported for products (see Chapter 4, "System Requirements".)

At a high level, the following table lists components of products that may only be installed on Windows.

**Note:** This does not cover any limitations within UNIX support such as support for certain UNIX versions.

| Product Category | Product | Products/Components Supported on Windows Only |
|---|---|---|
| Foundation Services | Smart View | Smart View Client |

| Product Category | Product | Products/Components Supported on Windows Only |
|---|---|---|
| | Remote Authentication Module | If using Remote Authentication Module, you must install Shared Services on Windows. Remote Authentication Module is part of the Shared Services installation. |
| | Performance Management Architect | • Dimension Server<br>• File Generator |
| Essbase | Essbase | Essbase Client (Oracle Essbase Spreadsheet Add-in) |
| | Administration Services | Essbase Administration Services Console |
| | Integration Services | Essbase Integration Services Client 32 bit |
| | Essbase Studio | Essbase Studio Client |
| | Application Builder for .NET | HabNet Client |
| | Oracle Essbase Visual Explorer | Smart View with Visual Explorer Client |
| Reporting and Analysis | Interactive Reporting | • Interactive Reporting Studio Client<br>• Interactive Reporting Dashboard Development Services |
| | Financial Reporting | • Financial Reporting Studio Client<br>• Financial Reporting Print Server Service |
| | Production Reporting | All Client components |
| Financial Performance Management Applications | Financial Management | All Components |
| | Strategic Finance | All Components |
| Data Management | FDM | All Components |
| | Data Relationship Management | • Client<br>• Web Server<br>• Application Server |

# 3 Installation Planning Checklist

**In This Chapter**



## Planning Your Installation

The following table provides a checklist to use to prepare for installing EPM System products. Oracle recommends that you review the checklist with your consultant at least one week before installation. Completing the checklist in advance of installation helps ensure a smoother, faster installation.

**Table 3 Pre-installation Planning Checklist**

| Task | Comments | Check When Completed |
|---|---|---|
| **Preparing the work area** | | |
| Prepare a work area for consultants who are assisting with the installation. | • Internet access—a direct connection outside the firewall<br>• Work area and computer (ideally located where the servers on which you are installing EPM System products are located), with network access<br>• Telephone | |
| Ensure that you can access the Oracle® E-Delivery (http://edelivery.oracle.com/) site. | | |
| **Obtaining third-party licenses** | | |
| Obtain required third-party license keys. | Some third-party products require license keys or license files. Requesting and receiving a license key can require several days.<br>For Web application servers, consider which type of license works best for your organization. For example, you might not need a license for the highest level of functionality; a license for a lower level of functionality might meet your needs. | |
| **Preparing the software** | | |

| Task | Comments | Check When Completed |
|---|---|---|
| Download the Oracle Hyperion Enterprise Performance Management System Installer, Fusion Edition and the required product installation assemblies from the media packs for the products that you purchased. | Download from the Oracle® E-Delivery (http://edelivery.oracle.com/) site.<br>Review the Media Pack Readme on Oracle® E-Delivery to identify the products that are required and optional for use with your products.<br>**Tip:** Oracle recommends that you download files to a shared drive.<br>See the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide* for information about how to unzip and organize the files. | |
| Ensure that the products meet EPM System product release compatibility requirements. | See Chapter 5, "Release Compatibility." | |
| Install all third-party components that are required by EPM System products. | See Chapter 4, "System Requirements."<br>Ensure that you have obtained all licenses that are required by third-party software. | |
| Validate that all third-party product versions meet system requirements. | See Chapter 4, "System Requirements." | |
| **Gathering required documentation** | | |
| Download the EPM System installation and product documentation for the products that you purchased. | In addition to this guide, download the following files from the Oracle® E-Delivery (http://edelivery.oracle.com/) site or from the Oracle Documentation Library (http://www.oracle.com/technology/documentation/epm.html) on Oracle® Technology Network:<br>● *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*<br>● *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*<br>● *Oracle Hyperion Enterprise Performance Management System SSL Configuration Guide*, if you are using SSL<br>● *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Troubleshooting Guide*<br>● Other installation and deployment documentation required for your deployment. (See Chapter 1, "Installation Documentation Roadmap.")<br>● The documentation for the products that you are installing | |
| **Preparing the hardware** | | |

| Task | Comments | Check When Completed |
|---|---|---|
| Plan your deployment architecture. | For example, before you configure EPM System products, you need to know whether you will deploy in a clustered environment. See:<br>● Chapter 2, "About EPM System Products" for information about EPM System product architecture<br>● "Platform Support " on page 17 for information about platform support<br>● Chapter 4, "System Requirements" for information about system requirements<br>● *Oracle Hyperion Enterprise Performance Management System High Availability Guide* for information about deploying in a clustered environment | |
| Ensure that the necessary hardware is available for your deployment architecture, and verify that the computers meet system requirements. | For assistance in planning your deployment architecture, see Chapter 2, "About EPM System Products." For system requirements, see Chapter 4, "System Requirements." | |
| Prepare each server for the EPM System installation. | ● Update server software as needed. For example, ensure that required service packs, hotfixes, and so on are installed.<br>● Disable unnecessary services. | |
| If you are clustering for load-balancing or failover, ensure that IT prepares the load balancer (hardware, software) or the failover mechanism. | Ensure that the load balancer or failover mechanism is tested and ready before you start the installation. See the *Oracle Hyperion Enterprise Performance Management System High Availability Guide* for additional information. | |
| Check network bandwidth and latency for distant sites and ensure that minimum requirements are met. | | |
| Synchronize server time. | When servers are not time synchronized, authentication errors that result in user access problems can occur between the EPM System application servers. | |
| Arrange backup functionality. | After the installation, Oracle advises that you perform a full backup of all servers and databases. After the initial backup, include servers and databases in daily backup procedures. | |
| Resolve potential firewall problems. | For example, in some cases, Essbase Integration Services Console is used on a client computer that is outside the network firewall, and the console requires access to Integration Server and Essbase Server, which are located inside the network firewall. In these cases, you must log on to Essbase Server with a name that both the client system and Integration Server can use to communicate with Essbase Server.<br>Problems arise when you attempt to log on using the external IP address of the computer running Essbase Server. Integration Server cannot use the external IP address to communicate with the computer running Essbase Server because both Essbase Server and Integration Server are inside the firewall. Administrators can solve this problem by defining an alias for the Essbase Server computer that is usable from both sides of the firewall. | |
| **Preparing databases** | | |

| Task | Comments | Check When Completed |
|---|---|---|
| If necessary, install a database client and prepare a database for EPM System products that require a repository for relational storage. | • Make sure to install a supported version of the database software. See "Data Tier (Repository) Requirements" on page 35.<br>• Set up database client access from the servers to the database setup.<br>• Set up user accounts to access the database.<br>• If you are using an Oracle database, test the database client with the `TNSPing` command.<br><br>If the database is installed, perform a full backup.<br><br>For additional information about preparing databases, see "Preparing a Database" on page 79. | |
| **Preparing the security infrastructure** | | |
| Collect the information needed to configure external security user directories in Oracle's Hyperion® Shared Services Console. | See "Configuring User Directories" in the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.<br><br>**Upgrade Note!**<br><br>If you are upgrading and want to support the movement of users and groups across Organizational Units (OUs), you must configure user directories in Shared Services to use a unique identity attribute to identify users and groups. See "Configuring User Directories" in the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*. | |
| Prepare a user account | Windows:<br>• For each Windows server, prepare a user account with Local administrator rights. Install and configure as an administrator and as the same user for all EPM System products.<br>• Assign local policies if required by your product. For Windows, the user ID typically requires "Act as part of the OS, Bypass Traverse Checking, and Log-on as a batch job."<br><br>UNIX<br>• For UNIX systems, create a login to install, configure, and run EPM System products. The account that is used to install EPM System products must have Read, Write, and Execute permissions on $HYPERION_HOME.<br>Oracle recommends that you do not install, configure, and run EPM System products using the `root` user.<br>• For each UNIX server, prepare a user account (not the root). Install and configure as the same user for all EPM System products.<br>• If you are using Oracle Application Server, you must install and configure EPM System products using the same user you used to install Oracle Application Server.<br>• If you have installed any other Oracle products, the user that will be installing EPM System products must be part of the same group as the user who installed the other Oracle products. For example, both users must be part of oinstall. | |
| Create domain accounts. | • DCOM account, if required for your product (for example, hypdcom) — domain user or system account with local Administrator rights<br>• Hyperion administrator (for example, hypadmin) — domain user account | |

| Task | Comments | Check When Completed |
|---|---|---|
| Obtain an account for external authentication with access to the user directory. | • Create a login (which can be a service account) with Browse privileges for the user directory.<br>• Ensure that the service account name does not include special characters.<br>• Ensure that the service account's Distinguished Name (DN) can access the user directory.<br>• Note the user directory port.<br>• Be familiar with the name of a Primary Domain Controller that can access MSAD (if applicable).<br>• Ensure that the server can communicate with the user directory.<br><br>See the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*. | |
| If you are using secure communication, ensure availability of SSL certificates for all components. | See the *Oracle Hyperion Enterprise Performance Management System SSL Configuration Guide*.<br><br>Oracle recommends a secure sockets-capable server in a production environment, or where the local network is not protected by some other means (such as a firewall) or where public users are able to access the Web server. | |
| Open firewall ports and if needed, fix dynamic ports. | See Chapter 7, "Ports." | |
| If you are using Shared Services Native Directory (OpenLDAP), consider whether to provision by user or by group. If you provision by group, decide whether to use Native Directory groups or external authentication provider groups. | See the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*. | |
| **Setting up Web application servers and Web servers** | | |
| Ensure that Web application servers are available for EPM System product deployment. The application server and the product that you are deploying must be installed on the same computer. | • Make sure to install a supported version of the Web application server. See "Web Tier Requirements" on page 33.<br>• To identify the products that require an application server and to view the list of supported application servers, see "Architecture" on page 15.<br>• A default product installation provides an Embedded Java Container.<br>• Ensure that you have obtained all required third-party licenses.<br>• For special considerations for each Web application server, see "Preparing Web Application Servers" on page 88.<br>• For UNIX, ensure that you have root access to the application server installation directory. (For WebSphere, you can set up security so that you can deploy without a root profile. See the WebSphere documentation for details.) | |

| Task | Comments | Check When Completed |
|---|---|---|
| Install a Web server to use with the EPM System products that require a Web server. | To identify the products that require a Web server and to view the list of supported Web servers, see "Architecture" on page 15. For additional information about setting up a Web server, see "Preparing Web Servers" on page 91.<br>A default installation provides a Web server for the Embedded Java Container. | |
| If you are using software load balancing, in the Web server, prepare the load balancer plug-in to the Web application server. | | |
| **Resolving ports** | | |
| Identify and resolve port conflicts. | Review the list of EPM System product default ports in Chapter 7, "Ports." | |
| **Preparing for product configuration** | | |
| Collect the information needed to configure products after installation. | See "Configuring EPM System Products" in the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide* | |
| Review your license agreement to confirm which products you have purchased and are licensed to use. | During configuration, based on your license agreement, activate or deactivate features. See "License Compliance" in the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*. | |

# Product-Specific Installation Planning

The following table describes additional planning required for specific EPM System products.

**Table 4 Additional Pre-Installation Planning Checklist**

| Task | Comments | Check When Completed |
|---|---|---|
| Prepare the Production Reporting Server | A C compiler is required to relink the Production Reporting Server executables for all platforms except Sun Solaris. For the AIX platform, a C++ compiler is required. If you need an installed C++ compiler, you can download the required C++ components from the following locations.<br>For AIX, go to:<br>`http://www-1.ibm.com/support/docview.wss?uid=swg24001174`<br>No changes to the Production Reporting Server linking scripts are required. | |
| Prepare the runtime environment on AIX. | Interactive Reporting, Financial Reporting, Web Analysis, and in some cases Essbase Server require an updated C++ runtime environment version on AIX 5L. See "Updating the C++ Runtime Environment for AIX" on page 25. | |

## Updating the C++ Runtime Environment for AIX

➤ To obtain the update:

1 **Go to the IBM technical support website:**

https://techsupport.services.ibm.com/

2 **Search for the PTF number (U489780) or the fileset (xlC.aix50.rte.6.0.0.7).**

3 **Download the file.**

# 4 System Requirements

In This Chapter



## Overview

This chapter describes system requirements for EPM System products. Requirements for EPM System product clients and Foundation Services are presented first, followed by sections that present requirements for each product family. Products are grouped into families as described in "EPM System Product Descriptions" on page 11.

In this chapter, specification of a range of releases indicates that all releases within the specified range are supported. For example, for the Oracle Database, all releases and interim releases between 9.2.0.5 and 11*g* (11.1.0.6.0) are supported.

For information on other prerequisites, see Chapter 6, "Preparing Your Environment."

For information on current and backward compatibility with other EPM System products, see Chapter 5, "Release Compatibility."

**Note:** Oracle acknowledges and supports the backward compatibility assertions for platform software as provided by its vendor. Therefore, where vendors assert backward compatibility, subsequent maintenance releases and service packs may be used. If an incompatibility is identified, Oracle will specify a patch release on which EPM System should be deployed (and remove the incompatible version from the supported matrix) or provide a maintenance release or service fix to the EPM System product software.

## Client Tier Requirements

EPM System client components have the following system requirements:

**Note:** For a listing of all client components, see "What Happens During Installation" in the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

- General requirements:
  - "Client Operating Systems" on page 28
  - "Screen Resolution" on page 29
  - "Runtime Clients" on page 29
  - "Client Disk Space and RAM" on page 29
- Web browser client requirements
  - "Web Browsers" on page 31
  - "Web Browser JRE Plug-in" on page 31
- Third-party requirements
  - "Other Third-Party Software" on page 32

## Client Operating Systems

The following table describes the supported operating systems for EPM System client components.

| Operating System | Processor[1] | Notes |
|---|---|---|
| Oracle Enterprise Linux 4 – 5[2] | x86-32<br>x86-64 | • Reporting and Analysis supports only the x86 processor.<br>• Data Integration Management does not support Linux. |
| Red Hat Enterprise Linux 4 – 5 (includes Advanced Server and Advanced Platform)[3] | x86-32<br>x86-64 | • For Interactive Reporting, only the HTML client is supported; the plug-in client is not supported.<br>• Data Integration Management does not support Linux. |
| Windows:<br>• Windows Vista (all editions except Home series)<br>• Windows XP Professional SP2<br>• Windows Server 2003 SP1 (R2 is also supported) | x86-32<br>Windows 2003 SP1 also supports x86-64. | Data Integration Management does not support Windows Vista or Windows 64-bit. |

[1] 1.6 GHz minimum is required.

[2] For supporting Web browser clients only.

[3] For supporting Web browser clients only.

**Note:** The Essbase client and Essbase Administration Services Console have both 64-bit and 32-bit binaries. All other clients have only 32-bit binaries. For detailed information, see "32-Bit and 64-Bit Client and Server Compatibility" on page 42.

## Screen Resolution

EPM System products are optimized for a minimum screen resolution of 1024 x 768.

## Runtime Clients

Some EPM System clients require the runtime clients of other EPM System or third-party products. EPM System runtime client and server versions must match.

For information on EPM System product interoperability, see Chapter 5, "Release Compatibility."

The following table describes the supported runtime clients for EPM System client components.

| Runtime Client | Required For |
|---|---|
| • Essbase—The Essbase runtime client is installed automatically.<br>• Microsoft SQL Server 2000 SP3a Analysis Services<br>• Microsoft SQL Server 2005 SP1 Analysis Services | • Financial Reporting<br>• Interactive Reporting<br>• Production Reporting<br>• Web Analysis |
| • Financial Management—The version of the Financial Management ADM driver and the version of Financial Management that is used for Financial Reporting and Web Analysis must match.<br>• Planning—The Planning ADM driver must be installed on all Financial Reporting server machines; it is a component in the EPM System Installer. | • Financial Reporting<br>• Web Analysis |
| Essbase—The Essbase runtime client is installed automatically. | Planning |

## Client Disk Space and RAM

This section does not apply to Web browser clients.

Disk space and RAM requirements are approximate. The installation program calculates the required disk space, based on your installation choices.

The recommended RAM requirement for all clients is 1 GB.

The following table describes the required disk space and RAM for EPM System client components.

| Product Family | Component | Disk Space (Minimum)[1] | Notes |
|---|---|---|---|
| EPM System Installer | EPM System Installer and all EPM System product assemblies | 8 GB | After installation, the installation files and assemblies can be removed. |
| Foundation Services | Common client components | 200 MB | |
| | Smart View for Office | 50 MB | |
| | Smart Space Client | 200 MB | |

| Product Family | Component | Disk Space (Minimum)[1] | Notes |
|---|---|---|---|
| | Smart Space Administration Utility | 40 MB | |
| | Performance Management Architect | 10 MB | File generator and batch client components only |
| Essbase | Essbase Runtime Client | 75 MB | |
| | Essbase Administration Services Console | 150 MB | |
| | Essbase Integration Services Console | 45 MB | |
| | Essbase Studio Console | 40 MB | |
| Reporting and Analysis | Oracle Hyperion Financial Reporting Studio, Fusion Edition | 200 MB | |
| | Oracle's Hyperion® Interactive Reporting Studio | 350 MB | |
| | Oracle's Hyperion® Dashboard Development Services | 95 MB | |
| | Oracle's Hyperion® SQR® Production Reporting Studio | 45 MB | |
| | Oracle's Hyperion® SQR® Production Reporting Activator | 15 MB | |
| | Production Reporting Remote | 5 MB | |
| | Production Reporting Viewer | 20 MB | |
| | Oracle's Hyperion® Web Analysis Studio | 20 MB | |
| Financial Performance Management Applications | Offline Planning | 140 MB | |
| | Financial Management Client | 50 MB | |
| | Strategic Finance Client | 350 MB | |
| | Oracle Hyperion Strategic Finance Reader | 350 MB | |
| Oracle's Data Management | FDM Workbench | 100 MB | |
| | Data Relationship Management Client | 20 MB | |

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

## Web Browsers

A Web browser is required for:

- Shared Services
- EPM Workspace
- Performance Management Architect
- Calculation Manager
- Smart Space (required only for installation)
- Application Builder for .NET
- Reporting and Analysis
- Planning
- Financial Management
- Performance Scorecard
- Profitability and Cost Management
- Strategic Finance (required only for drill-back to FDM)
- FDM
- Data Relationship Management (required only for Web Publishing and Migration Utility)

The following table describes the supported Web browsers for EPM System client components.

| Supported Web Browsers | Notes |
|---|---|
| Microsoft Internet Explorer 6.0 – 7.0.*x* | |
| Firefox 2.0.*x* | The following products do not support Firefox:<br>• Smart Space[1]<br>• Application Builder for .NET<br>• FDM<br>• Data Relationship Management (Web Publishing) |

[1]Internet Explorer must be used for Smart Space installation; Firefox does not support ClickOnce installation technology.

Set your browser to enable JavaScript and cookies. Storing cookies on your computer is recommended; at a minimum, allow per-session (not stored) cookies. For more information on browser prerequisites, see "Preparing Web Browsers" on page 92.

## Web Browser JRE Plug-in

The following table describes the supported Web browser JRE plug-in for EPM System client components.

| Supported Versions | Required For |
|---|---|
| JRE 1.5.0_12 to 1.5.0_12+ | • Web Analysis<br>• Performance Scorecard |

## Other Third-Party Software

The following table describes the required third-party software for EPM System client components.

| Supported Software | Notes |
|---|---|
| Microsoft .NET Framework 2.0 | Required only for Smart Space. |
| Adobe Acrobat Reader 6.0 or later | |
| Adobe Flash Player 8.*x* or later | Required for these Interactive Reporting clients:<br>• Designer (desktop client)<br>• Web Client (Plug-in)<br>• EPM Workspace (ThinClient) |
| DCOM enabled on the client computer | Required only for Financial Management when the Financial Management Win32 client is running or when the Financial Reporting client is running against a Financial Management application. |
| One of the following:<br>• Microsoft Office 2007<br>• Microsoft Office 2003<br>• Microsoft Office XP (2002) | A version of Microsoft Excel is required to use Smart View, the Essbase Client (Oracle Essbase Spreadsheet Add-in), and Offline Planning with:[1]<br>• Reporting and Analysis<br>• Financial Management<br>• Planning<br>• Essbase<br>•<br>Strategic Finance and Performance Management Architect File Generator also require a version of Excel. |
| Microsoft SQL Server (2005 SP1 or 2000 SP3a) Analysis Services client<br>Optional—used to connect to Microsoft SQL Server Analysis Services datasources. | Required only for:<br>• Interactive Reporting<br>• Financial Reporting[2]<br>• Web Analysis |
| • SAP GUI 6.20 OLE DB for OLAP Provider<br>• SAP GUI 6.4 OLE DB for OLAP Provider | Required only for Interactive Reporting |

| Supported Software | Notes |
|---|---|
| SAP Java Connector (JCO) 2.1.7[3]<br>Optional—used to connect to SAP BW | Required only for:<br>● Financial Reporting<br>● Production Reporting<br>● Web Analysis |

[1]Offline Planning and Excel must be installed on the same machine.

[2]Microsoft SQL Server Analysis Services is supported only by Financial Reporting on Windows. The SSAS client and SSAS server versions must match.

[3]Configure the SAP data source access and authentication after installation, when Reporting and Analysis creates the correct SAP directories. Download it as a registered user at `https://service.sap.com/connectors`.

# Web Tier Requirements

This section lists the requirements for all EPM System Web tier components, including Web application servers, Web (HTTP) servers, and Web server plug-ins.

## Web Application Servers

If an application contains more than 500 users and 10,000 measures, consider deploying to a Web application server cluster for increased scalability. For information on application server clustering, see *Oracle Hyperion Enterprise Performance Management System Manual Deployment Guide*.

To determine which EPM System product components require a Web application server, see "Architecture" on page 15.

The following table describes the supported Web application servers for EPM System Web tier components.

| Supported Web Application Servers | Notes |
|---|---|
| Oracle Application Server 10*g* (10.1.3.3.*x*)[1] | If Oracle Application Server is used as the Web application server, Oracle HTTP Server is also required. |
| Oracle WebLogic Server 9.2 (MP1 minimum) – 9.2.*x*[2] | |
| IBM WebSphere 6.1.0.17 (minimum) – 6.1.*x*[3] | |
| Embedded Java container[4] | |

[1]Supports these editions: Java, Standard One, Standard & Enterprise. Includes support for Oracle Application Server Single Sign-On.

[2]Also includes support for WebLogic Express. When deploying to WebLogic Express, automatic deployment supports Base Edition only. Other WebLogic Express editions are supported only via manual deployment.

[3]WebSphere Express, ND, and XD Editions are supported for each supported version of WebSphere; ND and XD are supported only via manual deployment.

[4]For this release, Apache Tomcat 5.5.17 is the embedded Java container that is installed automatically on all platforms. Apache Tomcat is supported only in this capacity. If future EPM System releases embed different Java application servers, Apache Tomcat will no longer be supported. For deployments that require high availability or failover, Oracle recommends using a commercially supported Web application server that supports high availability and failover.

**Note:** For automatic deployment using Oracle's Hyperion Enterprise Performance Management System Configurator, EPM Workspace and the application(s) being integrated with it must be deployed to the same Web application server type. For example, if EPM Workspace is deployed to Oracle Application Server, Performance Management Architect must also be deployed to Oracle Application Server.

## 32-Bit/64-Bit JVM Support

EPM System supports 32-bit JVMs in all Web applications on all 32-bit and 64-bit platforms, with the following exceptions:

- Windows Itanium:

  64-bit JVM is required for Oracle Application Server, WebLogic Server, and Apache Tomcat. WebSphere is not supported on this platform.

- HP-UX Itanium:

  64-bit JVM is required for WebSphere and Apache Tomcat.

- Solaris and AIX:

  Planning and Administration Services also support 64-bit JVM on WebSphere and WebLogic Server, but the Web application must be manually deployed.

- Windows x64 and Linux x64:

  Administration Services also supports 64-bit JVM on WebSphere and WebLogic Server, but the Web application must be manually deployed.

## Web Servers/Plug-ins

To determine which EPM System product components require a Web (HTTP) server, see "Architecture" on page 15.

The following table describes the supported Web servers for EPM System web tier components.

| Supported Web Servers | Supported Application Servers | Notes |
|---|---|---|
| Oracle HTTP Server 10*g* (available with Oracle Application Server 10.1.3.3.*x*) | • Oracle Application Server | Not supported for:<br>• Performance Management Architect Dimension Server<br>• Financial Management<br>• Data Relationship Management<br>• FDM |
| Apache HTTP Server 2.0.61 | • Tomcat<br>• WebLogic Server<br>• WebSphere | Not supported for:<br>• Performance Management Architect Dimension Server<br>• Financial Management<br>• Data Relationship Management<br>• FDM |

| Supported Web Servers | Supported Application Servers | Notes |
|---|---|---|
| IBM HTTP Server 6.1[1] | • WebSphere | Not supported for:<br>• Performance Management Architect Dimension Server<br>• Financial Management<br>• Data Relationship Management<br>• FDM |
| Microsoft IIS 6.0 (on Windows 2003 SP1)[2] | • Oracle Application Server<br>• WebLogic Server<br>• WebSphere<br>• Tomcat | |

[1]For Reporting and Analysis, the IBM Global Security Kit 7 (GSKit7) is required for the WebSphere Web server plug-in.

[2]If IIS is chosen as the Web server during configuration, you must allow all unknown ISAPI extensions via the Internet Information Services Manager.

### 32-Bit/64-Bit Microsoft IIS 6.0 Support

Microsoft IIS 6.0 can be configured to support either 32-bit application runtimes or 64-bit application runtimes on 64-bit operating systems. Microsoft IIS 6.0 cannot be configured to support both simultaneously. Therefore, in general, when installing and configuring EPM System products with Microsoft IIS 6.0, install 32-bit runtimes and 64-bit runtimes for EPM System Web tier components on different computers.

Specifically, FDM (32-bit) and Strategic Finance (32-bit) cannot be deployed to the same computer where Financial Management (64-bit) and Performance Management Architect (64-bit) are deployed. On 32-bit platforms, all EPM System products can co-exist.

## Data Tier (Repository) Requirements

A repository database is required for all EPM System components except the following:

- Essbase Server
- Administration Services—not required unless using Business Rules or Log Analyzer
- Provider Services
- Smart Search Command Line Utility
- Application Builder for .NET
- Strategic Finance

The following table describes the supported databases for EPM System components.

| Supported Relational Database Repositories | Notes |
|---|---|
| Oracle Database 9.2.0.5 – 11*g* (11.1.0.6.0)[1] | • For Performance Management Architect, the Oracle Database client must be installed on the Dimension Server machine.<br>• For Financial Management, the Oracle Database client must be installed on the same machine as the Financial Management application server.<br>• Data Integration Management does not support Oracle 11g. |
| IBM DB2 8.2 FP4 – 9.1*x* | • Not supported for:<br>❍ Profitability and Cost Management<br>❍ Data Relationship Management<br>❍ FDM<br>• If you use an IBM DB2 database for Performance Management Architect, DB2 9 Runtime Client and DB2 .NET Data Provider 9.1.0.2 must be installed on the Dimension Server machine.<br>• If you use an IBM DB2 database for Financial Management, DB2 9 Runtime Client and DB2 .NET Data Provider 9.1.0.2 must be installed on the same machine as the Financial Management Application Server. |
| Microsoft SQL Server 2000 SP3a – 2005[2] | |

[1]For all supported versions of Oracle Database: Includes support for RAC - Real Application Cluster and ASM. (2) Includes support for SE, SE1, EE. The Oracle OLE provider and Oracle Database server must be the same version.

[2]By default, SQL Server 2005 disables TCP/IP connections to the database. Ensure that the TCP/IP connections are enabled.

**Note:** EPM System products require use of a Java Database Connectivity (JDBC) driver for Oracle, SQL, and DB2. Oracle provides the Hyperion JDBC driver at no cost.

# Server Tier Requirements

This section lists server tier requirements for:


- "Foundation Services" on page 36
- "Essbase" on page 40
- "Reporting and Analysis" on page 50
- "Financial Performance Management Applications" on page 56
- "Data Management" on page 59


# Foundation Services

This section lists requirements for:

- Shared Services
- EPM Workspace
- Performance Management Architect

- Calculation Manager
- Smart Space

## Server Operating System/Processor

**Note:** 32/64-bit JVM support for web applications is listed in "Web Tier Requirements" on page 33.

The following table describes the supported operating systems and processors for Foundation Services server tier components.

| Operating System | Processor | Notes |
|---|---|---|
| Oracle Enterprise Linux 4 – 5 | x86-32<br>32-bit | Not supported for Performance Management Architect Dimension Server and File Generator. |
| Oracle Enterprise Linux 4 – 5 | x86-64<br>64-bit | Not supported for Performance Management Architect.<br>Binaries are 32-bit only for:<br>● Shared Services (OpenLDAP service)<br>● EPM Workspace services<br>● Smart Space |
| Windows 2003 SP1<br>(R2 is also supported.) | x86-32<br>32-bit | |
| Windows 2003 SP1, Server Enterprise x64 Edition<br>(R2 is also supported.) | x86-64<br>64-bit | Binaries are 32-bit only for:<br>● Shared Services (OpenLDAP service)<br>● EPM Workspace services<br>● Smart Space |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-32<br>32-bit | Not supported for Performance Management Architect Dimension Server and File Generator. |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-64<br>64-bit | Not supported for Performance Management Architect.<br>Binaries are 32-bit only for:<br>● Shared Services (OpenLDAP service)<br>● EPM Workspace services<br>● Smart Space |

| Operating System | Processor | Notes |
|---|---|---|
| HP-UX 11.23 | RISC<br>64-bit | Not supported for Performance Management Architect.<br>Binaries are 32-bit only for:<br>● Shared Services (OpenLDAP service)<br>● EPM Workspace services<br>● Smart Space |
| HP-UX 11.23 – 11.31*x* | Itanium 2<br>64-bit | Not supported for Performance Management Architect.<br>Binaries are 32-bit only for:<br>● EPM Workspace services<br>● Smart Space |
| IBM AIX 5.2 ML7 – 6.1.*x* | Power<br>64-bit | Not supported for Performance Management Architect Dimension Server and File Generator.<br>Binaries are 32-bit only for:<br>● Shared Services (OpenLDAP service)<br>● EPM Workspace services<br>● Smart Space<br>For AIX 5.2, Shared Services requires ML8. |
| Solaris 9 – 10[1] | SPARC<br>64-bit | Not supported for Performance Management Architect Dimension Server and File Generator.<br>Binaries are 32-bit only for:<br>● Shared Services (OpenLDAP service)<br>● EPM Workspace services<br>● Smart Space |

[1]Solaris 9 requires patch 111712-11.

**Note:** Oracle VM 2.1 for Linux and Windows is supported as a virtualized environment. For information on support for Oracle's EPM System products in third-party virtualized environments, see Metalink Note 588303.1.

## Disk Space and RAM

Disk space and RAM requirements are approximate and do not include additional possible requirements on the machine. The installation program calculates the required disk space, based on your installation choices. Disk space estimates include documentation help files (if applicable) and EPM System common components.

The following table describes the amount of disk space and RAM required for Foundation Services server tier components.

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Shared Services | 400 MB[1] | 1.5 GB |
| EPM Workspace | 1 GB<br>For services: 200 MB<br>For importing files: 1 GB | 1 GB<br>For services: 1 GB |
| Performance Management Architect | 50 MB | 1 GB for Dimension Server<br>512 MB each for Web Tier and Data Synchronizer |
| Calculation Manager | 20 MB | 256 MB |
| Smart Space | 600 MB | 1 GB |

[1]This number is for the base Shared Services installation. More disk space is required based on OpenLDAP (Native Directory) usage for provisioning (depending on how often you back up OpenLDAP) and on Lifecycle Management usage. If using Lifecycle Management functionality, Oracle recommends that you significantly increase disk space because application data is stored in the Shared Services file system.

## Other Third-Party Software

The following table describes the required third-party software for Foundation Services server tier components.

| Third-Party Software | Notes |
|---|---|
| Microsoft .NET Framework 2.0.50727 | Required only for Performance Management Architect Dimension Server; if not present, installed automatically by EPM System Installer. |

## User Directories and Identity/Access Management Systems

A user directory is required for external authentication through Shared Services.

**Note:** The Kerberos protocol can be used to secure the EPM System product environment. For detailed information, see *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.

The following table describes the supported user directories for EPM System products.

| User Directories | Notes |
|---|---|
| Lightweight Directory Access Protocol (LDAP):<br>● IBM Tivoli Directory Server 6.1<br>● Sun ONE 5.2 SP4<br>● Novell eDirectory 8.8<br>● OpenLDAP 2.3.37 | |

| User Directories | Notes |
|---|---|
| Microsoft:<br>• Microsoft Active Directory 2008<br>• Microsoft Active Directory 2003<br>• Microsoft Active Directory 2000<br>• Microsoft NTLM[12] | NTLM is not supported with Financial Management on 64-bit platforms.<br>NTLM is supported only if it is already configured as a user directory from a previous release. You cannot configure NTLM as a new user directory in Shared Services Console in this release. For more information, see *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*. |
| SAP Directory:<br>• SAP R/3 Enterprise 5.0 | |
| Database providers:<br>• Oracle Database 9.2.0.5 – 11*g* (11.1.0.6.0)[3]<br>• IBM DB2 8.2 FP4 – 9.1*x*<br>• Microsoft SQL Server 2000 SP3a – 2005 | See "Data Tier (Repository) Requirements" on page 35 for the list of supported databases for each product. |

[1]Shared Services running on UNIX requires Remote Authentication Module for UNIX NTLM authentication.

[2]If using 64-bit Windows Essbase with NTLM, you must install Remote Authentication Module (HRAM) on a 32-bit machine and proxy the NTLM calls using that HRAM instance from the 64-bit machine.

[3]For high load conditions (10 or more logins per second), Oracle recommends a minimum of 4 GB of memory on the machine that hosts the Oracle Database used as the provider. For conditions with 5 logins per second, 2 GB of memory is sufficient.

The following table describes the supported identity management systems.

| Identity and Access Management Systems | Notes |
|---|---|
| Directory Services:<br>• Oracle Internet Directory 10.1.4.0.1 and higher<br>• Oracle Virtual Directory 10.1.4.0.1 and higher | Oracle Internet Directory is supported as an external user directory and as the Shared Services Native Directory. See *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.<br>**Note:** If you are using Shared Services 11.1.1.1 with earlier releases of other products, Oracle Internet Directory (OID) cannot be used as Native directory. You must use openLDAP. |
| Access Management:<br>• Oracle Access Manager 10.1.4.0.1 and higher<br>• Oracle Application Server Single Sign-On | Not supported for FDM. |
| Identity Management:<br>Oracle Identity Manager 10.1.4.0.1 and higher | Not supported for FDM. |
| Netegrity SiteMinder 6 | Not supported by FDM or Strategic Finance |

# Essbase

This section lists requirements for:

- Essbase
- Administration Services
- Integration Services

- Provider Services
- Essbase Studio
- Smart Search Command Line Utility
- Application Builder for .NET

## Server Operating System/Processor

**Note:** 32/64-bit JVM support for web applications is listed in "Web Tier Requirements" on page 33.

The following table describes the supported operating systems and processors for Essbase server tier components.

| Operating System | Processor | Notes |
|---|---|---|
| Oracle Enterprise Linux 4 – 5 | x86-32<br>32-bit | Not supported for Smart Search Command Line Utility. |
| Oracle Enterprise Linux 4 – 5 | x86-64<br>64-bit | Not supported for Smart Search Command Line Utility. |
| Windows 2003 SP1<br>(R2 is also supported.) | x86-32<br>32-bit | |
| Windows 2003 SP1, Server Enterprise x64 Edition<br>(R2 is also supported.) | x86-64<br>64-bit | Smart Search Command Line Utility binaries are 32-bit. |
| Windows 2003 SP1, Server Enterprise Edition for Itanium-based Systems | Itanium 2<br>64-bit | Not supported for Smart Search Command Line Utility. |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-32<br>32-bit | Not supported for Smart Search Command Line Utility. |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-64<br>64-bit | Not supported for Smart Search Command Line Utility. |
| HP-UX 11.23 | RISC<br>64-bit | Not supported for Smart Search Command Line Utility.<br>Binaries are 32-bit for all components. |
| HP-UX 11.23 – 11.31*x* | Itanium 2<br>64-bit | Not supported for Smart Search Command Line Utility.<br>Administration Services supports only WebSphere and the embedded Java container (Tomcat) on this platform. Binaries are 32-bit for Oracle Application Server and WebLogic Server. |
| IBM AIX 5.2 ML7 – 6.1.*x* | Power<br>64-bit | Not supported for Smart Search Command Line Utility. |

| Operating System | Processor | Notes |
|---|---|---|
| Solaris 9 – 10[1] | SPARC<br>64-bit | Not supported for Smart Search Command Line Utility. |

[1]Solaris 9 requires patch 111712-11.

**Note:** Oracle VM 2.1 for Linux and Windows is supported as a virtualized environment. For information on support for Oracle's EPM System products in third-party virtualized environments, see Metalink Note 588303.1.

## 32-Bit and 64-Bit Client and Server Compatibility

The following table summarizes the compatibility of 32-bit and 64-bit clients and servers with Essbase Server:

| Client | Server | Essbase Server: Platform to Which Client Can Connect |
|---|---|---|
| 32-bit Essbase Administration Services Console | 32-bit Administration Server | 32-bit, 64-bit |
| 32-bit Essbase Administration Services Console | 64-bit Administration Server | 32-bit, 64-bit |
| 64-bit Essbase Administration Services Console | 64-bit Administration Server | 64-bit |
| 32-bit Essbase Studio Console | 32-bit Essbase Studio Server | 32-bit, 64-bit |
| 32-bit Essbase Studio Console | 64-bit Essbase Studio Server | 32-bit, 64-bit |
| 64-bit Essbase Studio Console | 64-bit Essbase Studio Server | 64-bit |
| 32-bit Essbase Integration Services Console | 32-bit Essbase Integration Server | 32-bit , 64-bit |
| 32-bit Essbase Integration Services Console | 64-bit Essbase Integration Server | 32-bit , 64-bit |
| 32-bit Smart View | 32-bit Provider Services | 32-bit, 64-bit |
| 32-bit Smart View | 64-bit Provider Services | 64-bit |
| 32-bit Essbase Administration Services Console | 32-bit Provider Services | 32-bit, 64-bit |
| 64-bit Essbase Administration Services Console | 64-bit Provider Services | 64-bit |
| 32-bit Java API or XMLA client application | 32-bit Provider Services | 32-bit, 64-bit |
| 64-bit Java API or XMLA client application | 64-bit Provider Services | 64-bit |

## API Compatibility on 32-Bit and 64-Bit Platforms

Essbase provides APIs for 32-bit and 64-bit platforms, which you can use to write and compile client programs that interface with Essbase Server.

- Client programs developed for 32-bit platforms using the Essbase C API or Visual Basic API can run on 32-bit platforms and connect to either 32-bit or 64-bit Essbase Server.
- Precompiled client programs developed using the 32-bit Essbase Visual Basic API can run on 64-bit Windows platforms connecting to 64-bit Essbase Server, as long as the 32-bit runtime environment is set up as according to the documented instructions.
- Client programs developed for 64-bit platforms using the Essbase C API:
  - Can run on 64-bit platforms and connect to 32-bit or 64-bit Essbase Servers
  - Cannot run on 32-bit platforms

**Caution!** Client programs developed for 64-bit platforms do not require the #pragma directive to set the byte alignment.

- You cannot develop a client program for 64-bit Windows using the Essbase Visual Basic API.

The following table summarizes the compatibility of client programs developed with Essbase APIs:

| Client Development: Platform with API Version | Platform on which Client Can Run | Essbase Server: Platforms to Which Client Can Connect |
|---|---|---|
| 32-bit C API / Runtime Client | 32-bit | 32-bit, 64-bit |
| 32-bit VB API / Runtime Client | 32-bit Windows | 32-bit, 64-bit |
| | 64-bit Windows | 64-bit |
| 32-bit Java (API or XMLA client application) | 32-bit Provider Services server | 32-bit, 64-bit |
| 32-bit embedded Java (API client application) | | 32-bit, 64-bit |
| 64-bit C API / Runtime Client | 64-bit | 32-bit, 64-bit |
| 64-bit Java (API or XMLA client application) | 64-bit Provider Services server | 64-bit |
| 64-bit embedded Java (API client application) | | 64-bit |

For information on the compatibility of 32-bit and 64-bit EPM System clients and servers with Essbase Server, see "32-Bit and 64-Bit Client and Server Compatibility" on page 42.

### Disk Array Support

For data storage and binary installation, Essbase supports the use of any disk array device that is mounted with a local file system interface (for example, NTFS, HPFS, JFS, VxFS, and UFS). A disk array mounted using NFS or CIFS is not supported.

## Disk Space and RAM

Disk space and RAM requirements are approximate and do not include additional possible requirements on the machine. The installation program calculates the required disk space, based

on your installation choices. Disk space estimates include documentation help files (if applicable) and EPM System common components.

The following table describes the amount of disk space and RAM required for Essbase server tier components.

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Essbase Server | 1 GB | 1 GB |
| Application Programming Interface | 20 MB | 256 MB |
| Administration Services | 500 MB[1] | 32 MB multiplied by the number of concurrent Administration Server users<br>For example, 32 MB * 10 users = 320 MB |
| Essbase Integration Server | 170 MB | 256 MB |
| Provider Services | 340 MB | 340 MB |
| Essbase Studio Server | 60 MB | 256 MB |

[1]Allow extra disk space for data files and outline files that are copied to Administration Server during data loading and outline editing, respectively.

## EPM System Software

The following table describes the required EPM System software for Essbase server tier components.

| Component | Required Software |
|---|---|
| Essbase | • Shared Services (unless using Essbase in native security mode)<br>• Administration Services |
| Administration Services | • Shared Services<br>• Essbase |
| Provider Services | • Administration Services |
| Essbase Studio | • Shared Services<br>• Essbase<br>• Administration Services |
| Smart View | Provider Services |
| Smart Search Command Line Utility | • Shared Services<br>• Essbase |

**Note:** Provider Services integrates with Essbase, Administration Services, and Shared Services but is not required.

**Note:** For information about which releases of these required products are compatible with the current release of Essbase, see Chapter 5, "Release Compatibility."

## Data Sources

The following sections list databases that are supported as data sources for Essbase product components.

### ODBC and JDBC Connectivity for Essbase Studio

This section describes the supported ODBC and JDBC drivers for Essbase Studio

#### ODBC Drivers for Essbase Studio

During cube deployment, when Essbase Studio is run in nonstreaming mode, Essbase Studio Server works with Essbase to query the external data source using an ODBC connection.

For server installations, confirm that you have ODBC drivers that are compatible with both the relational database and the operating system of the machine on which Essbase is installed. The Essbase installation includes ODBC drivers from DataDirect (MERANT). The drivers that work with Performance Management Architect Dimension Server and flat files are also integrated in the Essbase installation. However, in some cases, it is recommended that you use the ODBC drivers provided by your relational database vendor.

The following table describes the supported ODBC drivers for Essbase Studio.

| Relational Database | ODBC Driver (Windows) | Solaris | AIX | HP-UX | Linux |
|---|---|---|---|---|---|
| Oracle Database 10g (10.1.0.3) | DataDirect Driver 5.2 SP1 | Not supported | Not supported | Not supported | Not supported |
| Oracle Database 11*g* (11.1.0.6.0); maximum version<br>Oracle Database 9*i* (9.2.0.5); minimum version | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| IBM DB2 UDB 9.1x; maximum version<br>IBM DB2 UDB 8.2 FP4; minimum version[1] | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| Microsoft SQL Server 2005; maximum version | SQL Server 2005 ODBC native driver[2] | Data Direct Driver 5.2 SP1 | Data Direct Driver 5.2 SP1 | Data Direct Driver 5.2 SP1 | Data Direct Driver 5.2 SP1 |
| Microsoft SQL Server 2000 SP3a; minimum version | SQL Server 2000 ODBC native driver[3] | Data Direct Driver 5.2 SP1 | Data Direct Driver 5.2 SP1 | Data Direct Driver 5.2 SP1 | Data Direct Driver 5.2 SP1 |

| Relational Database | ODBC Driver (Windows) | Solaris | AIX | HP-UX | Linux |
|---|---|---|---|---|---|
| MySQL 5.x[4] | MySQL Connector/ ODBC 3.51x and above[5][6] | MySQL Connector/ ODBC 3.51x | Not supported | Not supported | MySQL Connector/ ODBC 3.51x |
| Netezza NPS 4.x; maximum version<br>Netezza NPS 3.1; minimum version[7] | Netezza 4.2.x ODBC native driver[8] | Netezza 4.2.x ODBC native driver[9] | Netezza 4.2.x ODBC native driver[10] | Netezza 4.2.x ODBC native driver[11] | Netezza 4.2.x ODBC native driver[12] |
| Oracle Business Intelligence Enterprise Edition (OBIEE) 10.1.3. 4 and above[13] | Oracle BI Server ODBC 10.1.3.4 and above | Oracle BI Server ODBC 10.1.3.4 and above | Oracle BI Server ODBC 10.1.3.4 and above | Oracle BI Server ODBC 10.1.3.4 and above | Oracle BI Server ODBC 10.1.3.4 and above |
| Teradata V2R5.1[14] | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC |
| Teradata V2R6.0[15] | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC |
| Teradata V12[16] | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC |

[1]DB2 8.2 FP4 is the equivalent of DB2 8.1 FP11.

[2]Microsoft SQL Server 2005 native driver must be obtained separately from Microsoft.

[3]Microsoft SQL Server 2000 native driver must be obtained separately from Microsoft.

[4]MySQL is supported as a data source, but not as an Essbase Studio catalog.

[5]MySQL ODBC driver must be obtained separately from MySQL.

[6]Essbase, Essbase Studio, and MySQL may each be installed on different machines; however, the MySQL ODBC driver must be installed on the machine where Essbase resides.

[7]Netezza is supported as a data source, but not as an Essbase Studio catalog.

[8]Works with Netezza NPS versions 3.1 through 4.x.

[9]Works with Netezza NPS versions 3.1 through 4.x.

[10]Works with Netezza NPS versions 3.1 through 4.x.

[11]Works with Netezza NPS versions 3.1 through 4.x.

[12]Works with Netezza NPS versions 3.1 through 4.x.

[13]OBIEE is supported as a data source, but not as an Essbase Studio catalog.

[14]Teradata ODBC drivers must be obtained separately from Teradata Corporation.

[15]Teradata ODBC drivers must be obtained separately from Teradata Corporation.

[16]Teradata ODBC drivers must be obtained separately from Teradata Corporation.

### JDBC Drivers for Essbase Studio

During cube deployment, when Essbase Studio is run in streaming mode, Essbase Studio Server uses JDBC drivers to query the external data source directly.

Most JDBC drivers are installed automatically when you install Essbase Studio. Oracle, IBM DB2, Microsoft SQL Server, and Teradata drivers are installed automatically during the installation of Essbase Studio Server. For MySQL, Netezza, and OBIEE JDBC, you must obtain the JDBC driver from the manufacturer.

### MySQL

The MySQL JDBC driver library file (`mysql-connector-java.jar`) is not included in the installation. You must download the file from the MySQL web site. Copy the file to the Essbase Studio server directory in `$HYPERION_HOME/products/Essbase/EssbaseStudio/Server`. The MySQL JDBC driver version is 3.1.x and above.

### Netezza

The Netezza NPS JDBC driver library file is not included in the installation. You must download the file from the Netezza web site. Copy the file to the Essbase Studio server directory in `$HYPERION_HOME/products/Essbase/EssbaseStudio/Server`. The Netezza NPS JDBC driver version is 4.2.x and is compatible with Netezza NPS versions 3.1 up to 4.x.

### OBIEE

The OBIEE JDBC driver library file is not included in the installation. You must download the file from the Oracle web site. Copy the file to the Essbase Studio server directory in `$HYPERION_HOME/products/Essbase/EssbaseStudio/Server`. The OBIEE version is 10.1.3.4 and above.

## ODBC and JDBC Connectivity for Integration Services

This section describes the supported ODBC and JDBC drivers for Integration Services.

### ODBC Drivers for Integration Services

For server installations, confirm that you have ODBC drivers that are compatible with both the relational database and the operating system of the server on which Integration Services is installed. Integration Services includes ODBC drivers from DataDirect (MERANT). However, in some cases, it is recommended that you use the ODBC drivers provided by your relational database vendor.

The following table describes the supported ODBC drivers for Integration Services.

| Relational Database | Windows | Solaris | AIX | HP-UX | Linux |
|---|---|---|---|---|---|
| Oracle Database 11*g* (11.1.0.6.0); maximum version<br>Oracle Database 9*i* (9.2.0.5) | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| IBM DB2 UDB 9.1<br>IBM DB2 UDB 8.2<br>IBM DB2 UDB 8.1.7a<br>IBM DB2 v7x for z/OS[1] | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |

| Relational Database | Windows | Solaris | AIX | HP-UX | Linux |
|---|---|---|---|---|---|
| Microsoft SQL Server 2005; maximum version<br>Microsoft SQL Server 2000 SP3a; minimum version | SQL Server 2005 ODBC native driver[2] | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| MySQL[3][4] | MySQL Connector/ODBC 3.51 x | MySQL Connector/ODBC 3.51 x | Not supported | Not supported | MySQL Connector/ODBC 3.51 x |
| Teradata V2R5.1 | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC |
| Teradata V2R6.0[5] | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC |
| Teradata V12[6] | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC |

[1]IBM DB2 v7x for z/OS is supported as data source, but not for OLAP Metadata Catalog.

[2]Microsoft SQL Server 2005 driver must be obtained from Microsoft.

[3]MySQL is supported for OLAP Metadata Catalog, but not as a data source.

[4]MySQL ODBC drivers must be obtained from MySQL.

[5]Teradata ODBC drivers must be obtained from NCR corporation.

[6]Teradata ODBC drivers must be obtained from NCR corporation.

## ODBC Drivers for Essbase SQL Interface

This section describes the supported ODBC drivers for Essbase SQL Interface on 32-bit and 64-bit platforms.

The following table describes the supported ODBC drivers for Essbase SQL Interface on 32-bit platforms.

### 32–bit

| Relational Database | Windows | Solaris | AIX | HP-UX RISC | Linux |
|---|---|---|---|---|---|
| Oracle Database 10*g* (10.1.0.3) | DataDirect Driver 5.2 SP1 | Not supported | Not supported | Not supported | Not supported |
| Oracle Database 10*g* (10.1.0.5)<br>Oracle Database 9*i* (9.2.0.1) | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| IBM DB2 UDB 9.1<br>IBM DB2 UDB 8.2<br>IBM DB2 UDB 8.1.7a<br>IBM DB2 v7x for z/OS[1] | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |

| Relational Database | Windows | Solaris | AIX | HP-UX RISC | Linux |
|---|---|---|---|---|---|
| Microsoft SQL Server 2005 | SQL Server 2005 ODBC native driver | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| Microsoft SQL Server 2000 SP3a | SQL Server 2000 ODBC native driver | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| Teradata V2R5.1[2] | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC |
| Teradata V2R6.0[3] | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC |
| Teradata V12[4] | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC |

[1]IBM DB2 v7x for z/OS is supported as a data source, but not for OLAP Metadata Catalog.

[2]Teradata ODBC drivers must be obtained separately from Teradata.

[3]Essbase supports Teradata Parallel Transporter (TPT) 12, which can connect to Teradata V2R6 databases. See the *Oracle Essbase SQL Interface Guide*.

[4]Essbase supports Teradata Parallel Transporter (TPT) 12, which can connect to Teradata V12 databases. See the *Oracle Essbase SQL Interface Guide*.

### 64–bit

The following table describes the supported ODBC drivers for Essbase SQL Interface on 64-bit platforms.

| Relational Database | Windows | Solaris | AIX | HP-UX Itanium | Linux |
|---|---|---|---|---|---|
| Oracle Database 10*g* (10.1.0.3) | DataDirect Driver 5.2 SP1 | Not supported | Not supported | Not supported | Not supported |
| Oracle Database 10*g* (10.1.0.5)<br>Oracle Database 9*i* (9.2.0.1) | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| IBM DB2 UDB 9.1<br>IBM DB2 UDB 8.2<br>IBM DB2 UDB 8.1.7a | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5. SP1 | DataDirect Driver 5.2 SP1 |
| Microsoft SQL Server 2005 | SQL Server 2005 ODBC native driver | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| Microsoft SQL Server 2000 SP3a | SQL Server 2000 ODBC native driver | DataDirect Driver 5.2 SP1 | Not supported | DataDirect Driver 5.2 SP1 | DataDirect Driver 5.2 SP1 |
| Teradata V2R5.1[1] | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC | Teradata 3.05 ODBC |
| Teradata V2R6.0[2] | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC | Teradata 3.06 ODBC |

| Relational Database | Windows | Solaris | AIX | HP-UX Itanium | Linux |
|---|---|---|---|---|---|
| Teradata V12[3] | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC | Teradata 12.0 ODBC |

[1]Teradata ODBC drivers must be obtained separately from Teradata.

[2]Essbase supports Teradata Parallel Transporter (TPT) 12, which can connect to Teradata V2R6 databases. See the *Oracle Essbase SQL Interface Guide*.

[3]Essbase supports Teradata Parallel Transporter (TPT) 12, which can connect to Teradata V12 databases. See the *Oracle Essbase SQL Interface Guide*.

# Reporting and Analysis

This section lists requirements for:

- Financial Reporting
- Interactive Reporting
- Production Reporting
- Web Analysis

## Server Operating System/Processor

**Note:** 32/64-bit JVM support for web applications is listed in "Web Tier Requirements" on page 33.

The following table describes the supported operating systems and processors for Reporting and Analysis server tier components.

| Operating System | Processor | Notes |
|---|---|---|
| Oracle Enterprise Linux 4 – 5 | x86-32<br>32-bit | Not supported for Financial Reporting Print Server. |
| Oracle Enterprise Linux 4 – 5 | x86-64<br>64-bit | Not supported for Financial Reporting Print Server.<br>Binaries are 32-bit only for:<br>● Interactive Reporting services<br>● Financial Reporting services |
| Windows 2003 SP1<br>(R2 is also supported.) | x86-32<br>32-bit | |
| Windows 2003 SP1, Server Enterprise x64 Edition<br>(R2 is also supported.) | x86-64<br>64-bit | Binaries are 32-bit only for:<br>● Interactive Reporting services<br>● Financial Reporting services |

| Operating System | Processor | Notes |
|---|---|---|
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-32<br>32-bit | Not supported for Financial Reporting Print Server. |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-64<br>64-bit | Not supported for Financial Reporting Print Server.<br>Binaries are 32-bit only for:<br>● Financial Reporting services<br>● Interactive Reporting services |
| HP-UX 11.23 | RISC<br>64-bit | Not supported for Financial Reporting Print Server.<br>Binaries are 32-bit only for:<br>● Financial Reporting services<br>● Interactive Reporting services<br>● Production Reporting<br>Connectivity to Interactive Reporting data sources on a 64-bit operating system requires a 32-bit database client. |
| HP-UX 11.23 – 11.31*x* | Itanium 2<br>64-bit | Not supported for Financial Reporting Print Server.<br>Binaries are 32-bit only for:<br>● Interactive Reporting services<br>Connectivity to Interactive Reporting data sources on a 64-bit operating system requires a 32-bit database client. |
| IBM AIX 5.2 ML7 – 6.1.*x* | Power<br>64-bit | Not supported for Financial Reporting Print Server.<br>Binaries are 32-bit only for:<br>● Financial Reporting services<br>● Interactive Reporting services |
| Solaris 9 – 10[1] | SPARC<br>64-bit | Not supported for Financial Reporting Print Server.<br>Binaries are 32-bit only for:<br>● Financial Reporting services<br>● Interactive Reporting services |

[1]Solaris 9 requires patch 111712-11.

**Note:** When using Financial Management as a data source, for performance reasons, running both Reporting and Analysis and Financial Management on a Windows platform is highly recommended. Deploying Financial Management and Reporting and Analysis in a mixed environment of Windows/UNIX may result in unsatisfactory performance.

**Note:** Oracle VM 2.1 for Linux and Windows is supported as a virtualized environment. For information on support for Oracle's EPM System products in third-party virtualized environments, see Metalink Note 588303.1.

## Disk Space and RAM

Disk space and RAM requirements are approximate and do not include additional possible requirements on the machine. The installation program calculates the required disk space, based on your installation choices. Disk space estimates include documentation help files (if applicable) and EPM System common components.

The following table describes the amount of disk space and RAM required for Reporting and Analysis server tier components.

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Financial Reporting | 200 MB | 1 GB |
| Interactive Reporting | 500 MB | 1 GB |
| Production Reporting | 200 MB | 256 MB |
| Web Analysis | 1 GB | 1 GB |

## EPM System Software

The following table describes the required EPM System software for Reporting and Analysis server tier components.

| Component | Required EPM System Software |
|---|---|
| All Reporting and Analysis components | • Shared Services<br>• EPM Workspace |

## Other Third-Party Software

The following table describes the required third-party software for Reporting and Analysis server tier components.

| Required Software | Required For |
|---|---|
| • One of the following PDF generators:<br>  ❍ Adobe Acrobat Distiller Server 8.0 or 6.0<br>  ❍ GPL Ghostscript 8.63, AFPL Ghostscript 8.54 or 8.51, or GNU Ghostscript 7.0.6<br>**Note:** Ghostscript is supported in 32-bit mode only. | Financial Reporting[1] |
| Adobe Acrobat Reader 6.0 or later | Interactive Reporting, UNIX platforms only.<br>If the installation location for Acrobat Reader is not in the `PATH`, set a new environment variable: `PATH_TO_ACROREAD`, where the path is the Acrobat Reader installation location. |

| Required Software | Required For |
|---|---|
| One of the following:<br>● Microsoft SQL Server (2005 or 2000 SP3a) Analysis Services client—Windows only<br>● SAP GUI 6.20 OLE DB for OLAP Provider—Windows only<br>● SAP GUI 6.4 OLE DB for OLAP Provider—Windows only | Interactive Reporting |
| One of the following:<br>● NetWeaver BI and SAP BW 7.0 connectivity require the use of SAP JCO 2.1.7<br>● For Microsoft SQL Server, you need Microsoft SQL Server (2005 or 2000 SP3a) Analysis Services. The SSAS client and SSAS server versions must match. | ● Financial Reporting<br>● Production Reporting<br>● Web Analysis |
| SQL Grid connectivity (supports SQL Grid withOracle Database, IBM DB2, and Microsoft SQL Server)—Merant drivers | Web Analysis |
| An X virtual frame buffer (X11/Xvfb) or a hardware graphics display device[2] | To perform chart generation in UNIX, required for:<br>● Financial Reporting<br>● Web Analysis<br>● Production Reporting |

[1]For Financial Reporting, you must use Ghostscript, not Distiller, to import content into Microsoft Word and PowerPoint.

[2]Oracle recommends that an X virtual frame buffer (Xvfb) be used instead of a hardware graphics display device (because Xvfb performs all operations in memory and does not require that a screen or input device be attached to the computer).

## Data Sources

The following table describes the supported data sources for Reporting and Analysis server tier components.

| Supported Data Source Databases | Reporting and Analysis Modules and Connectivity | Notes |
|---|---|---|
| EPM System data sources: one or more of the following:[1]<br>● Essbase | ● Interactive Reporting—C API / MDX<br>● Financial Reporting—ADM<br>● Web Analysis—ADM<br>● Production Reporting—DDO | |
| ● Financial Management | ● Financial Reporting—ADM<br>● Web Analysis—ADM | ● The version of Financial Management ADM must match the version of Financial Management Server.<br>● If running Reporting and Analysis on a UNIX platform, Financial Management is not supported as a data source. |

| Supported Data Source Databases | Reporting and Analysis Modules and Connectivity | Notes |
|---|---|---|
| • Planning | • Financial Reporting—ADM<br>• Web Analysis—ADM | • Planning data sources only apply to Financial Reporting.<br>• Web Analysis supports Planning only for access to Essbase cubes.<br>• The version of Planning ADM must match the release of Planning Server. |
| Oracle Database[2]:<br>• Oracle Database 11*g*<br>• Oracle Database 10*g* Release 2 (10.2.0.2)<br>• Oracle Database 10*g* (10.1.0.5)<br>• Oracle Database 9*i* (9.2.0.5) | • Interactive Reporting—OCI, ODBC<br>• Production Reporting—OCI, ODBC, JDBC<br>• Web Analysis—JDBC | |
| One of the following:<br>• Microsoft Access 2007<br>• Microsoft Access 2003<br>• Microsoft Access XP (2002)<br>• Microsoft Access 2000 | Production Reporting—ODBC | Supported only by Production Reporting—Windows only |
| IBM DB2 9.1 | • Interactive Reporting—ODBC<br>• Production Reporting—ODBC, JDBC, DB2 Connect<br>• Web Analysis—JDBC | |
| IBM DB2 8.2 | • Interactive Reporting—ODBC<br>• Production Reporting—ODBC, JDBC, DB2 Connect<br>• Web Analysis—JDBC | |
| IBM DB2 v7x for z/OS | • Interactive Reporting—ODBC<br>• Production Reporting—ODBC, JDBC, DB2 Connect | Supported only by:<br>• Interactive Reporting<br>• Production Reporting<br>• Web Analysis |
| IBM DB2:<br>• IBM DB2 OLAP Server 8.2<br>• IBM DB2 OLAP Server 8.1.7a | | Not supported by:<br>• Oracle's Hyperion® Interactive Reporting Studio<br>• Oracle Hyperion Financial Reporting Studio, Fusion Edition<br>• Web Analysis |
| Informix 9.4 and later | Production Reporting—ODBC, JDBC, SDK 2.81 | Supported only by Production Reporting |

| Supported Data Source Databases | Reporting and Analysis Modules and Connectivity | Notes |
|---|---|---|
| Informix 9.2 and later | Interactive Reporting—ODBC | Supported only by Interactive Reporting |
| Microsoft SQL Server:<br>● Microsoft SQL Server 2005 SP1[3]<br>● Microsoft SQL Server 2000 SP3a | ● Interactive Reporting—ODBC<br>● Production Reporting—ODBC, JDBC<br>● Web Analysis—JDBC | |
| Microsoft SQL Server:[4]<br>● Microsoft SQL Server 2005 SP1 Analysis Services[5]<br>● Microsoft SQL Server 2000 SP3a Analysis Services[6] | ● Interactive Reporting—ODBO<br>● Financial Reporting—ADM<br>● Production Reporting—DDO<br>● Web Analysis—ADM | |
| Netezza NPS 3.1 – 4.*x* | ● Interactive Reporting—ODBC<br>● Production Reporting—ODBC | Supported only by:<br>● Interactive Reporting<br>● Production Reporting |
| OpenEdge 10.1B | Production Reporting—ODBC | Supported only by Production Reporting |
| Progress 9.1E04 | Production Reporting—ODBC | Supported only by Production Reporting |
| Red Brick 6.3 or higher | ● Interactive Reporting—ODBC<br>● Production Reporting—ODBC | Supported only by:<br>● Interactive Reporting—Windows only<br>● Production Reporting—Windows only |
| SAP:<br>● SAP BW 3.1 or 3.5<br>● NetWeaver BI (SAP BW) 7.0 | ● Financial Reporting—BAPI<br>● Interactive Reporting—ODBO<br>● Production Reporting—BAPI<br>● Web Analysis—BAPI | |
| SAP R/3 Enterprise (mySAP ERP 2005 ) 4.6C / 6.x | Production Reporting—BAPI | Supported only by Production Reporting |
| Sybase 15 | ● Interactive Reporting—ODBC<br>● Production Reporting—ODBC, JDBC, CTLIB | Supported only by:<br>● Interactive Reporting<br>● Production Reporting |
| Sybase ASE 12.5.1 and 12.5.2 and later | ● Interactive Reporting—ODBC<br>● Production Reporting—ODBC, JDBC, CTLIB<br>● Web Analysis—JDBC | Supported only by:<br>● Interactive Reporting<br>● Production Reporting |

| Supported Data Source Databases | Reporting and Analysis Modules and Connectivity | Notes |
|---|---|---|
| Sybase IQ 12.6 and later | • Interactive Reporting—ODBC<br>• Production Reporting—ODBC | Supported only by:<br>• Interactive Reporting—Windows only<br>• Production Reporting—Windows only |
| Teradata (ODBC):[7]<br>• Teradata V12.*x* (Teradata ODBC driver version 12.0)<br>• Teradata V2R6.0.*x* (Teradata ODBC driver version 3.06)<br>• Teradata V2R5.1.*x* (Teradata ODBC driver version 3.05) | • Interactive Reporting—ODBC<br>• Production Reporting—ODBC, PP2 (Solaris, PA-RISC HP-UX)<br>• Web Analysis—JDBC | Not supported by Financial Reporting |
| Teradata (JDBC):[8]<br>• Teradata V12.*x* (Teradata JDBC driver version 12.00.00.01)<br>• Teradata V2R6.0.*x* (Teradata JDBC driver version 03.01.00.102 or 03.02.00.03)<br>• Teradata V2R5.1.*x* (Teradata JDBC driver version 03.01.00.10, 03.03.00.06, or 03.04.00.03) | • Web Analysis—JDBC | Not supported by Financial Reporting |

[1]Data sources should be consistent with compatibility matrix. See Chapter 5, "Release Compatibility".

[2]For all supported versions of Oracle Database: 1) Includes support for Real Application Cluster (RAC) and ASM. Includes support for SE, SE1, and EE. The Oracle OLE provider and Oracle Database server must be the same version.

[3]By default, SQL Server 2005 disables TCP/IP connections to the database. Ensure that the TCP/IP connections are enabled.

[4]Microsoft SQL Server Analysis Services, supported only by Windows-based Reporting and Analysis servers.

[5]To connect to Microsoft SSAS 2005 databases, you must install SSAS Connectivity Client on any Financial Reporting client or server or any Web Analysis Web application machine.

[6]To connect to SSAS 2000 databases, you must install SSAS 2000 Connectivity Client on any Financial Reporting client or server or any Web Analysis Web application machine.

[7]Obtain the driver separately from the Teradata web site.

[8]Obtain the driver separately from the Teradata web site.

# Financial Performance Management Applications

This section lists requirements for:

- Planning
- Financial Management
- Performance Scorecard
- Profitability and Cost Management
- Strategic Finance

**Note:** Requirements for Performance Management Architect and Calculation Manager are listed in "Foundation Services" on page 36.

## Server Operating System/Processor

**Note:** 32/64-bit JVM support for web applications is listed in "Web Tier Requirements" on page 33.

The following table describes the supported operating systems and processors for Financial Performance Management Applications server tier components.

| Operating System | Processor | Notes |
|---|---|---|
| Oracle Enterprise Linux 4 – 5 | x86<br>32-bit | Supported only for:<br>● Planning<br>● Performance Scorecard |
| Oracle Enterprise Linux 4 – 5 | x64<br>64-bit | Supported only for:<br>● Planning<br>● Performance Scorecard |
| Windows 2003 SP1[1]<br>(R2 is also supported.) | x86-32<br>32-bit | |
| Windows 2003 SP1, Server Enterprise x64 Edition<br>(R2 is also supported.) | x86-64<br>64-bit | |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-32<br>32-bit | Supported only for:<br>● Planning<br>● Performance Scorecard |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-64<br>64-bit | Supported only for:<br>● Planning<br>● Performance Scorecard |
| HP-UX 11.23 | RISC<br>64-bit | Supported only for:<br>● Performance Scorecard<br>● Profitability and Cost Management |
| HP-UX 11.23 – 11.31*x* | Itanium 2<br>64-bit | Supported only for:<br>● Planning<br>● Performance Scorecard |
| IBM AIX 5.2 ML7 – 6.1.*x* | Power<br>64-bit | Supported only for:<br>● Planning<br>● Performance Scorecard |

| Operating System | Processor | Notes |
|---|---|---|
| Solaris 9 – 10[2] | SPARC<br>64-bit | Supported only for:<br>● Planning<br>● Performance Scorecard<br>● Profitability and Cost Management |

[1]For Financial Management, also install the following DCOM hot fix from Microsoft: http://support.microsoft.com/kb/899148.

[2]Solaris 9 requires patch 111712-11.

**Note:** Oracle VM 2.1 for Linux and Windows is supported as a virtualized environment. For information on support for Oracle's EPM System products in third-party virtualized environments, see Metalink Note 588303.1.

## Disk Space and RAM

Disk space and RAM requirements are approximate and do not include additional possible requirements on the machine. The installation program calculates the required disk space, based on your installation choices. Disk space estimates include documentation help files (if applicable) and EPM System common components.

The following table describes the amount of disk space and RAM required for Financial Performance Management Applications server tier components.

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Financial Management Server | 32 GB (10 GB available) | 4 GB |
| Database Server for Financial Management | 12 GB | 4 GB |
| Planning | 4 GB (10 GB available) | 2 GB |
| Performance Scorecard | 2 GB recommended | 1 GB[1] |
| Strategic Finance Server | 350 MB[2] | 2 GB |
| Profitability and Cost Management | 4 GB | 2 GB |

[1]1 GB includes Performance Scorecard and Alerter servers.

[2]Sufficient storage should be included to contain the entities, their backup archives, administrative and transaction files, and user background task logs, such as consolidation reports.

## EPM System Software

The following table describes the required EPM System software for Financial Performance Management Applications server tier components.

| Component | Required EPM System Software |
|---|---|
| Planning (using Classic application administration) | • Shared Services<br>• EPM Workspace<br>• Essbase (Essbase Server and Administration Services components)<br>• Business Rules |
| Planning (using Performance Management Architect application administration) | • Shared Services<br>• EPM Workspace<br>• Essbase (Essbase Server and Administration Services components)<br>• Performance Management Architect<br>• Calculation Manager (required for Oracle Hyperion Capital Asset Planning, Fusion Edition and Oracle Hyperion Workforce Planning, Fusion Edition) |
| Financial Management | • Shared Services<br>• EPM Workspace<br>• Performance Management Architect (optional, if you are using Classic Application Administration)<br>• Calculation Manager (optional) |
| Performance Scorecard | • Shared Services<br>• EPM Workspace<br>• Essbase (Essbase Server and Administration Services components) — required for custom reporting through cube production |
| Strategic Finance | • Shared Services |
| Profitability and Cost Management | • Shared Services<br>• EPM Workspace<br>• Performance Management Architect |

# Data Management

This section lists requirements for:

- Data Integration Management
- FDM
- Data Relationship Management

## Server Operating System/Processor

The following table describes the supported operating systems and processors for Data Management server tier components.

| Operating System | Processor | Notes |
|---|---|---|
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-32<br>32-bit | Supported only for Data Integration Management. |
| Red Hat Enterprise Linux 4 – 5<br>(includes Advanced Server and Advanced Platform) | x86-64<br>64-bit | Supported only for Data Integration Management; binaries are 32-bit. |
| Windows 2003 SP1<br>(R2 is also supported.) | x86-32<br>32-bit | |
| Windows 2003 SP1, Server Enterprise x64 Edition<br>(R2 is also supported.) | x86-64<br>64-bit | Supported only for FDM and Data Relationship Management.<br>FDM and Data Relationship Management binaries are 32-bit. |
| Windows 2003 SP1, Server Enterprise Edition for Itanium-based Systems | Itanium 2<br>64-bit | Supported only for Data Integration Management; binaries are 32-bit. |
| HP-UX 11.23 | RISC<br>64-bit | Supported only for Data Integration Management; binaries are 32-bit. |
| IBM AIX 5.2 ML7 | Power<br>64-bit | Supported only for Data Integration Management; binaries are 32-bit. |
| Solaris 9 – 10[1] | SPARC<br>64-bit | Supported only for Data Integration Management; binaries are 32-bit. |

[1]Solaris 9 requires patch 111712-11.

**Note:** Oracle VM 2.1 for Linux and Windows is supported as a virtualized environment. For information on support for Oracle's EPM System products in third-party virtualized environments, see Metalink Note 588303.1.

## Disk Space/RAM

Disk space and RAM requirements are approximate and do not include additional possible requirements on the machine. The installation program calculates the required disk space, based on your installation choices. Disk space estimates include documentation help files (if applicable) and EPM System common components.

The following table describes the amount of disk space and RAM required for Data Management server tier components.

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| Data Integration Management | Refer to the Informatica PowerCenter 8.1.1 installation documentation. | Refer to the Informatica PowerCenter 8.1.1 installation documentation. |
| FDM Database Server | • Dependent on size of the FDM application<br>• Multiple HDDs to spread processing | 1 GB per 75 concurrent users (2 GB minimum) |

| Component | Disk Space (Minimum) | RAM (Minimum) |
|---|---|---|
| FDM folder structure | Dependent on size of the FDM application | |
| FDM Application Server | 200 MB | 2 GB (per 75 concurrent users) |
| FDM Web Server | 200 MB | 2 GB |
| Data Relationship Management-Database Server | 2 GB | 2 GB |
| Data Relationship Management-Application Server | 100 MB | 2 GB |

## EPM System Software

The following table describes the required EPM System software for Data Management server tier components.

| Required Component | Required EPM System Software |
|---|---|
| Data Relationship Management Application Server | • Shared Services—For external authentication only |
| FDM | • Shared Services—For external authentication only |

**Note:** Other EPM System components may be required depending on the EPM System products that are deployed.

## Third-Party Software

The following table describes the required third-party software for Data Management server tier components.

| Required Software | Required For |
|---|---|
| Informatica PowerCenter 8.1.1 SP3 | Data Integration Management |
| Excel 2000 or later | FDM Application Server |
| Microsoft MDAC 2.8 or later | • FDM Application Server<br>• FDM Web Server<br>• Data Relationship Management Application Server<br>**Note:** On Windows 2003, MDAC is automatically installed. |
| Microsoft IIS 6.0 (on Windows Server 2003) with .NET framework 2.0 (automatically installed if not detected) | • FDM Web Server<br>• Data Relationship Management Web Server |

# 5 Release Compatibility

**In This Chapter**



## How to Read the Tables in This Chapter

To ensure that you obtain the correct information from the tables in this chapter, read down each column to identify the versions of EPM System products that are compatible with the product named in the column heading.

| | Planning 11.1.1.1* | Financial Management 11.1.1.1 | Performance Scorecard 11.1.1.1 | Strategic Finance 11.1.1.1 | Profitability and Cost Management 11.1.1.1 |
|---|---|---|---|---|---|
| **Essbase** | | | | | |
| Compatible Essbase versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* (7.1.2 API) | 11.1.1.*x* |

For example, Planning 11.1.1.1 is compatible with Essbase versions 11.1.1.*x*, 9.3.*x*, and 9.2.*x*.

**Note:** The two tables for Smart View release compatibility in "Foundation Services Compatibility Tables" on page 65 are not formatted like the other tables in this chapter.

# Foundation Services Release Compatibility

If you upgrade any EPM System product to Release 11.1.1.1, you must also upgrade the following Foundation Services components to Release 11.1.1.1:

- Shared Services
- EPM Workspace
- Performance Management Architect (includes Calculation Manager) — Required to upgrade only if you are using Performance Management Architect as the application creation tool for Planning, Financial Management, or Profitability and Cost Management.

In addition, if you use any Reporting and Analysis components, you must upgrade them to 11.1.1.1:

- Financial Reporting
- Interactive Reporting
- Production Reporting
- Web Analysis

# Backward-Compatibility with Other EPM System Products

Foundation Services and Reporting and Analysis 11.1.1.1 components are backward-compatible with previous versions of the following products:

- Essbase
- Planning; Workforce Planning; Capital Asset Planning
- Financial Management
- Performance Scorecard
- Strategic Finance; Strategic Finance for Banking
- Data Integration Management
- Data Relationship Management

To identify the versions of these products that are supported with 11.1.1.1 Foundation Services components, see "Shared Services, EPM Workspace, Performance Management Architect, and Smart Space Compatibility" on page 65.

To use EPM System products in a mixed-release environment (i.e., not all products have been upgraded to 11.1.1.1), you must edit Oracle's Hyperion Shared Services Registry to ensure that the products operate properly. For more information about editing Shared Services Registry content for mixed-release use, and for information about other issues with using EPM System in a mixed-release environment, see "Using Mixed Releases" in *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

**Note:** Editing the Shared Services Registry is not required when using release 11.1.1.0 and release 11.1.1.1 in a mixed-release environment.

# Foundation Services Compatibility Tables

Use the following tables to determine compatibility between Foundation Services components and other product components:


- "Shared Services, EPM Workspace, Performance Management Architect, and Smart Space Compatibility" on page 65
- "Smart View Compatibility with Provider Services" on page 67
- "Smart View Compatibility with Independent Providers" on page 67


## Shared Services, EPM Workspace, Performance Management Architect, and Smart Space Compatibility

The following table describes the release compatibility between Foundation Services components and other product components.

**Table 5** Shared Services, EPM Workspace, Performance Management Architect, and Smart Space Release Compatibility

| | **Shared Services 11.1.1.1**[1] | **EPM Workspace 11.1.1.1**[2] | **Performance Management Architect 11.1.1.1 (includes Calculation Manager)** | **Smart Space 11.1.1.1** |
|---|---|---|---|---|
| **Essbase** | | | | |
| Compatible Essbase versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x*<br>9.3.1 | 11.1.1.*x*<br>9.3.1 |
| Compatible Administration Services versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x*<br>9.3.1 | NA |
| Compatible Provider Services versions[3] | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA |
| Compatible Integration Services versions | NA | NA | NA | NA |
| Compatible Essbase Studio versions | 11.1.1.*x* | NA | 11.1.1.*x* | NA |
| **Reporting and Analysis** | | | | |

| | Shared Services 11.1.1.1[1] | EPM Workspace 11.1.1.1[2] | Performance Management Architect 11.1.1.1 (includes Calculation Manager) | Smart Space 11.1.1.1 |
|---|---|---|---|---|
| Compatible Financial Reporting versions | 11.1.1.1 | 11.1.1.1 | NA | 11.1.1.*x*<br>9.3.1 |
| Compatible Production Reporting versions | 11.1.1.1 | 11.1.1.1 | NA | 11.1.1.*x*<br>9.3.1 |
| Compatible Interactive Reporting versions | 11.1.1.1 | 11.1.1.1 | NA | 11.1.1.*x*<br>9.3.1 |
| Compatible Web Analysis versions | 11.1.1.1 | 11.1.1.1 | NA | 11.1.1.*x*<br>9.3.1 |
| **Financial Performance Management Applications** | | | | |
| Compatible Planning versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.1<br>9.3.1.1.6 and higher[4] | NA |
| Compatible Financial Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.1 | NA |
| Compatible Performance Scorecard versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x* | NA | NA |
| Compatible Strategic Finance versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA |
| Compatible Profitability and Cost Management versions | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* | NA |
| **Data Management** | | | | |
| Compatible Data Relationship Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | All versions through flat files or interface tables | NA |
| Compatible FDM versions | 11.1.1.*x* | NA | NA | NA |

| | Shared Services 11.1.1.1[1] | EPM Workspace 11.1.1.1[2] | Performance Management Architect 11.1.1.1 (includes Calculation Manager) | Smart Space 11.1.1.1 |
|---|---|---|---|---|
| Compatible Data Integration Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA |

[1]Some products do not support the Lifecycle Management feature of Shared Services. See the *Oracle Hyperion Enterprise Performance Management System Lifecycle Management Guide*.

[2]EPM Workspace 11.1.1.1 is also compatible with Oracle BI EE and Oracle BI Publisher versions 10.1.3.3.1 and 10.1.3.3.2.

[3]For the 9.2.*x* releases, Analytic Services Smart View Provider is supported.

[4]Calculation Manager 11.1.1.1 is not compatible with Planning 9.3.1, including Workforce Planning and Oracle Hyperion Capital Asset Planning, Fusion Edition.

## Smart View Compatibility with Provider Services

The following table describes the release compatibility between Smart View and Provider Services.

**Table 6 Smart View Compatibility with Provider Services and EPM System Products**

| Provider Services Version | Smart View Client Version | Supported Product Versions |
|---|---|---|
| Provider Services 11.1.1.1 | 11.1.1.*x*[1] | Planning 11.1.1.*x* |
| | | Essbase:<br>● 11.1.1.*x*<br>● 9.3.*x*<br>● 9.2.*x* |

[1]Smart View 11.1.1.1 is also compatible with Oracle Business Intelligence Enterprise Edition versions 10.1.3.3.1 and 10.1.3.3.2.

**Note:** Smart Slice operations and Planning ad hoc operations are supported only when Provider Services Release 11.1.1.*x* is used.

## Smart View Compatibility with Independent Providers

The following table describes the release compatibility between Smart View and independent providers.

**Table 7** Smart View Compatibility with Independent Providers

| Smart View Client Version | Supported Versions of Independent Providers | Notes |
|---|---|---|
| 11.1.1.1 | Financial Management:<br>● 11.1.1.*x*<br>● 9.3.*x*<br>● 9.2.*x* | |
| 11.1.1.1 | Planning:<br>● 11.1.1.*x*<br>● 9.3.*x*<br>● 9.2.*x* | ● Smart Slice operations and Planning ad hoc operations are supported only when Provider Services Release 11.1.1.*x* is used. See Table 6.<br>● Smart View 11.1.1.1 does not support Offline Planning Provider 9.2. Smart View support for Offline Planning is only for Planning 9.3.0.1 and higher. |
| 11.1.1.1 | Reporting and Analysis:<br>● 11.1.1.*x*<br>● 9.3.*x*<br>● 9.2.*x* | |

**Note:** Smart View 11.1.1.1 is also compatible with Oracle Crystal Ball Enterprise Performance Management, Fusion Edition.

# Essbase Release Compatibility

The following table describes the release compatibility between Essbase components and other product components.

**Note:** For Smart View compatibility, see "Smart View Compatibility with Provider Services" on page 67.

**Table 8** Essbase Release Compatibility

| | Essbase 11.1.1.1 | Administration Services 11.1.1.1 | Integration Services 11.1.1.1 | Provider Services 11.1.1.1 | Essbase Studio 11.1.1.1 |
|---|---|---|---|---|---|
| **Foundation Services** | | | | | |
| Compatible Shared Services versions | 11.1.1.1 | 11.1.1.1 | NA | 11.1.1.1 | 11.1.1.1 |
| Compatible EPM Workspace versions | NA | NA | NA | NA | NA |

| | Essbase 11.1.1.1 | Administration Services 11.1.1.1 | Integration Services 11.1.1.1 | Provider Services 11.1.1.1 | Essbase Studio 11.1.1.1 |
|---|---|---|---|---|---|
| Compatible Performance Management Architect versions[1] | 11.1.1.1 | NA | NA | NA | 11.1.1.1 |
| Compatible Smart Space versions | 11.1.1.1 | NA | NA | NA | NA |
| **Essbase** | | | | | |
| Compatible Essbase versions | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x* |
| Compatible Administration Services versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | 11.1.1.*x* |
| Compatible Provider Services versions[2] | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x* |
| Compatible Integration Services versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | 11.1.1.*x* |
| Compatible Essbase Studio versions | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* | NA |
| **Reporting and Analysis** | | | | | |
| Compatible Financial Reporting versions | 11.1.1.1 | NA | NA | NA | NA |
| Compatible Production Reporting versions | 11.1.1.1 | NA | NA | NA | NA |
| Compatible Interactive Reporting versions | 11.1.1.1 | NA | NA | NA | NA |
| Compatible Web Analysis versions | 11.1.1.1 | NA | NA | NA | 11.1.1.1 |
| **Financial Performance Management Applications** | | | | | |

| | Essbase 11.1.1.1 | Administration Services 11.1.1.1 | Integration Services 11.1.1.1 | Provider Services 11. 1.1.1 | Essbase Studio 11.1. 1.1 |
|---|---|---|---|---|---|
| Compatible Planning versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x*<br>Planning and Administration Services must be at the same release level in order for Business Rules to work properly. | NA | NA | NA |
| Compatible Financial Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | NA |
| Compatible Performance Scorecard versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | NA |
| Compatible Strategic Finance versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | NA |
| Compatible Profitability and Cost Management versions | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* | NA |
| **Data Management** | | | | | |
| Compatible Data Relationship Management versions | All versions through flat files or interface tables | NA | All versions through flat files or interface tables | NA | NA |
| Compatible FDM versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | 11.1.1.*x* |
| Compatible Data Integration Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA | NA |

[1]Includes Calculation Manager

[2]For the 9.2.*x* releases, Analytic Services Smart View Provider and Analytic High Availability Services are supported.

# Reporting and Analysis Release Compatibility

The following table describes the release compatibility between Reporting and Analysis components and other product components.

For EPM Workspace compatibility information, see "Foundation Services Release Compatibility" on page 64.

**Table 9** Reporting and Analysis Release Compatibility

| | **Interactive Reporting 11.1.1.1**[1] | **Financial Reporting 11.1.1.1** | **Production Reporting 11.1.1.1** | **Web Analysis 11.1.1.1** |
|---|---|---|---|---|
| **Foundation Services** | | | | |
| Compatible Shared Services versions[2] | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 |
| Compatible EPM Workspace versions | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 |
| Compatible Performance Management Architect versions[3] | NA | NA | NA | NA |
| Compatible Smart Space versions | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 |
| **Essbase** | | | | |
| Compatible Essbase versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |
| Compatible Administration Services versions | NA | NA | NA | NA |
| Compatible Provider Services versions[4] | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |
| Compatible Integration Services versions | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |
| Compatible Essbase Studio versions | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* | 11.1.1.*x* |
| **Financial Performance Management Applications** | | | | |

| | Interactive Reporting 11.1.1.1[1] | Financial Reporting 11.1.1.1 | Production Reporting 11.1.1.1 | Web Analysis 11.1.1.1 |
|---|---|---|---|---|
| Compatible Planning versions | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |
| Compatible Financial Management versions | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |
| Compatible Performance Scorecard versions | NA | NA | NA | NA |
| Compatible Strategic Finance versions | NA | NA | NA | NA |
| Compatible Profitability and Cost Management versions | NA | NA | NA | 11.1.1.*x* |
| **Data Management** | | | | |
| Compatible Data Relationship Management versions | NA | NA | NA | NA |
| Compatible FDM versions | NA | NA | NA | NA |
| Compatible Data Integration Management versions | NA | NA | NA | NA |

[1]Release compatibility among Interactive Reporting components is listed in Table 10.

[2]Shared Services is not needed for standalone products.

[3]Includes Calculation Manager.

[4]For the 9.2.*x* releases, Analytic High Availability Services is supported.

The following table describes the release compatibility between Interactive Reporting product components.

**Table 10 Interactive Reporting Components Release Compatibility**

| | Interactive Reporting 11.1.1.1 | Interactive Reporting 9.3.*x* | Interactive Reporting 9.2.*x* |
|---|---|---|---|
| Oracle's Hyperion® Impact Management Services — Impact of Change | 11.1.1.*x* | 9.3.*x* | 9.2.*x* |
| Impact Management Services — Data Model Update | 11.1.1.*x* | 9.3.*x* | 9.2.*x* |
| Oracle's Hyperion® Impact Management Services — JavaScript Update Kits | 11.1.1.*x* | 11.1.1.*x*<br>9.3.*x* | NA |

| | Interactive Reporting 11.1.1.1 | Interactive Reporting 9.3.*x* | Interactive Reporting 9.2.*x* |
|---|---|---|---|
| Dashboard Development Services — Dashboard Studio | 11.1.1.*x*<br>9.3.*x* | 11.1.1.*x*<br>9.3.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |
| Oracle's Hyperion® Dashboard Development Services — Dashboards, Templates, and Components | 11.1.1.*x*<br>9.3.*x* | 11.1.1.*x*<br>9.3.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* |

# Financial Performance Management Applications Release Compatibility

The following table describes the release compatibility between Financial Performance Management Applications components and other product components.

**Table 11** Financial Performance Management Applications Release Compatibility

| | Planning 11.1.1.1[1] | Financial Management 11.1.1.1 | Performance Scorecard 11.1.1.1 | Strategic Finance 11.1.1.1 | Profitability and Cost Management 11.1.1.1 |
|---|---|---|---|---|---|
| **Foundation Services** | | | | | |
| Compatible Shared Services versions | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 |
| Compatible EPM Workspace versions | 11.1.1.1 | 11.1.1.1 | 11.1.1.1 | NA | 11.1.1.1 |
| Compatible Performance Management Architect versions[2] | 11.1.1.1 | 11.1.1.1 | NA | NA | 11.1.1.1 |
| Compatible Smart Space versions | NA | NA | NA | NA | NA |
| **Essbase** | | | | | |
| Compatible Essbase versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* (7.1.2 API) | 11.1.1.*x* |

| | **Planning 11.1.1.1**[1] | **Financial Management 11.1.1.1** | **Performance Scorecard 11.1.1.1** | **Strategic Finance 11.1.1.1** | **Profitability and Cost Management 11.1.1.1** |
|---|---|---|---|---|---|
| Compatible Administration Services versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x*<br>Planning and Administration Services must be at the same release level in order for Oracle's Hyperion® Business Rules to work properly. | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | 11.1.1.*x* |
| Compatible Provider Services versions | NA | NA | NA | NA | 11.1.1.*x* |
| Compatible Integration Services versions | NA | NA | NA | NA | 11.1.1.*x* |
| Compatible Essbase Studio versions | NA | NA | NA | NA | NA |
| **Reporting and Analysis** | | | | | |
| Compatible Financial Reporting versions | 11.1.1.1 | 11.1.1.1<br>9.3.*x*<br>9.2.*x* | NA | NA | NA |
| Compatible Oracle's Hyperion® SQR® Production Reporting versions | NA | NA | NA | NA | NA |
| Compatible Interactive Reporting versions | NA | NA | Through IR Smartcuts | NA | NA |
| Compatible Web Analysis versions | 11.1.1.1 | 11.1.1.1<br>9.3.*x*<br>9.2.*x* | Through Extended Analytics | NA | 11.1.1.1 |
| **Financial Performance Management Applications** | | | | | |
| Compatible Planning versions | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | The version deployed with Essbase | NA |

| | Planning 11.1.1.1[1] | Financial Management 11.1.1.1 | Performance Scorecard 11.1.1.1 | Strategic Finance 11.1.1.1 | Profitability and Cost Management 11.1.1.1 |
|---|---|---|---|---|---|
| Compatible Financial Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA |
| Compatible Performance Scorecard versions | NA | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA |
| Compatible Strategic Finance versions | The version deployed with Essbase | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | NA | NA |
| Compatible Profitability and Cost Management versions | NA | NA | NA | NA | NA |
| **Data Management** | | | | | |
| Compatible Data Relationship Management versions | All versions through flat files | All versions through flat files | NA | NA | NA |
| Compatible FDM versions | The version deployed with Essbase | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | NA | 11.1.1.*x* | NA |
| Compatible Data Integration Management versions | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x* | NA | NA |

[1]Includes Oracle Hyperion Workforce Planning, Fusion Edition and Capital Expense Planning

[2]Includes Calculation Manager

# Data Management Release Compatibility

The following table describes the release compatibility between Data Management components and other product components.

**Table 12** Data Management Release Compatibility

| | Data Relationship Management 11.1.1.1 | FDM 11.1.1.1 | Oracle's Hyperion® Data Integration Management 11.1.1.1 |
|---|---|---|---|
| **Foundation Services** | | | |

| | Data Relationship Management 11.1.1.1 | FDM 11.1.1.1 | Oracle's Hyperion® Data Integration Management 11.1.1.1 |
|---|---|---|---|
| Compatible Shared Services versions | 11.1.1.1[1] | 11.1.1.1 | NA |
| Compatible EPM Workspace versions | NA | NA | NA |
| Compatible Oracle Hyperion Smart View for Office, Fusion Edition versions | NA | NA | NA |
| Compatible Performance Management Architect versions[2] | All versions via flat files or interface tables | NA | NA |
| Compatible Smart Space versions | NA | NA | NA |
| **Essbase** | | | |
| Compatible Essbase versions | All versions through flat files | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* (7.1.2 API) | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x*<br>7.1.6 |
| Compatible Administration Services versions | All versions through flat files or interface tables | NA | NA |
| Compatible Provider Services versions | NA | NA | NA |
| Compatible Integration Services versions | All versions through flat files or interface tables | NA | NA |
| Compatible Essbase Studio versions | NA | 11.1.1.*x* | NA |
| **Financial Performance Management Applications** | | | |
| Compatible Planning versions | All versions through flat files | The version deployed with Essbase | 11.1.1.*x*<br>9.3.*x*<br>9.2.0.3 |
| Compatible Financial Management versions | All versions through flat files | 11.1.1.*x*<br>9.3.*x*<br>9.2.*x* | 11.1.1.*x*<br>9.3.*x*<br>9.2.0.3 |
| Compatible Performance Scorecard versions | NA | NA | 11.1.1.*x*<br>9.3.*x* |
| Compatible Strategic Finance versions | NA | 11.1.1.*x* | NA |

| | Data Relationship Management 11.1.1.1 | FDM 11.1.1.1 | Oracle's Hyperion® Data Integration Management 11.1.1.1 |
|---|---|---|---|
| Compatible Profitability and Cost Management versions | NA | NA | NA |

[1]If Data Relationship Management is used only with Shared Services, and not with any other EPM System products, it is also backward-compatible with the 9.2.*x* and 9.3.*x* versions of Shared Services.

[2]Includes Calculation Manager

# 6 Preparing Your Environment

**In This Chapter**



## Preparing a Database

Before you install and configure most EPM System products, you must create a database using a supported RDBMS (Oracle Database, Microsoft SQL Server, or IBM DB2).

For ease of deployment and simplicity, you can use one database repository for all products (with the exceptions noted below). When you configure multiple products at one time using EPM System Configurator, one database is configured for all selected products.

**Caution!** To use a different database for each product, perform the "Configure Database" task separately for each product. 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.

The following products and product components require unique databases:

- Performance Management Architect interface data source.
- Extended Analytics for Financial Management and Extended Analytics for Strategic Finance.
- Planning. Each Planning application should have its own repository.
- Performance Scorecard.
- FDM. Use an Oracle Database instance exclusively for FDM.

  For information about the FDM database, see the *Oracle Hyperion Financial Data Quality Management DBA Guide*.
- Data Relationship Management. See the *Oracle Hyperion Data Relationship Management Installation Guide*.

**Upgrade Note!**

If you are upgrading from a previous release of EPM System products, use the same database or databases that you used in the previous release.

# Using an Oracle Database

## Oracle Database Installation Information

- Install Oracle Database full client on the following machines:
  - Performance Management Architect Dimension server
  - Financial Management application server
  - Data Relationship Management server
- If your database resides on a remote computer, create a Net Service Name that enables the product to connect to the remote database.
- Use the global database server name when specifying locations and paths. Do not use `localhost` as a server name.

## Oracle Database Creation Considerations

For the best compatibility with non-ASCII character sets, the database **must** be created using Unicode Transformation Format UTF-8 encoding (character set). Use of UTF-8 is **required** if you need multi-lingual support (multi character set support). 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)

**Note:** The UTF-8 character set must be applied to the client and to the Oracle database.

## Oracle Database Roles and Privileges

Oracle Database user IDs should have the following roles and privileges:

- CREATE SESSION
- CREATE VIEW
- RESOURCE

### Required Oracle Database Account (FDM only)

The default tablespace used by FDM is the `Users` tablespace. To ensure that users do not exceed a space-used threshold or if you have questions about the appropriate value for the quota, consult with your database administrator.

Oracle recommends that FDM has its own Oracle Database instance.

Oracle recommends that you review the *Oracle Hyperion Financial Data Quality Management DBA Guide* prior to creating the database instance.

## Oracle Database Sizing Guidelines

Oracle recommends that you set tablespaces with autoextend on.

The following table describes the Oracle Database sizing guidelines.

| Product | Sizing Guideline |
|---|---|
| Shared Services | Start with 100MB, and add more as the number of migrations with Lifecycle Management and the number of audit records increases. |
| EPM Workspace | The amount of 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. |
| Performance Management Architect | Oracle recommends starting with at least 250MB. |
| Smart Space | The amount of 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 Oracle Smart Space Collaborator, Fusion Edition database without having to increase the data file or tablespace. A shared pool size of 60 MB is used during configuration with EPM System Configurator. |
| Administration Services | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Essbase Studio | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Planning 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. |
| 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. |
| Performance Scorecard | 500 MB |
| Profitability and Cost Management | 100 MB |

| Product | Sizing Guideline |
|---|---|
| FDM | See the *Oracle Hyperion Financial Data Quality Management DBA Guide*. |

# Oracle Database Configuration Considerations

## 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 EPM 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>• Make sure that `SEGMENT SPACE MANAGEMENT` parameter is set to `AUTO` when you create tablespace. This parameter is needed for better performance. |
| Reporting and Analysis | Dedicate a tablespace to Reporting and Analysis. Determine the tablespaces to be used as the default tablespace and the temporary tablespace for this user. Do not use the SYSTEM tablespace. |
| Financial Management | Set up a temporary tablespace greater than 1GB. |
| FDM | See the *Oracle Hyperion Financial Data Quality Management DBA Guide*. |
| Data Relationship Management | • Set initial tablespace size to 1GB<br>• Extents at 500MB<br>• Turn Auto Extend ON |

## Other Parameters

The following table describes other Oracle Database parameters.

| Product | Other Parameters |
|---|---|
| General/All Products | Set the nls_length_semantics parameter to `char`:<br>`nls_length_semantics=char` |
| Shared Services | For Shared Services to work correctly, set the following parameters:<br>`nls_language = American`<br>`nls_territory = America` |
| Planning | Planning requires that `CURSOR_SHARING` in Oracle be set to the default setting, "EXACT." If you have performance issues with Planning cube refresh, check this setting to be sure that it is set to "EXACT." |

| Product | Other Parameters |
|---|---|
| Financial Management | Set Oracle `OPEN_CURSORS` to 5000. |
| Performance Scorecard | Set Oracle `OPEN_CURSORS` to 1500 or higher. |
| FDM | See the *Oracle Hyperion Financial Data Quality Management DBA Guide*. |

### Operating System Configuration for Oracle Database

For Reporting and Analysis, set the necessary environment variables:

- (UNIX/Linux)
  - ORACLE_HOME
  - PATH
  - (Solaris/Linux) LD_LIBRARY_PATH
  - (AIX) LIBPATH
  - (HP) SHLIB_PATH

## Using a Microsoft SQL Server Database

### Microsoft SQL Server Database Creation Considerations

When you set the security properties for the database, select the following Authentication option: SQL Server and Windows.

### Microsoft SQL Server Roles and Privileges

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

**Note:** For FDM, Windows accounts that run MSSQL Server Windows service must have read access to the FDM `Data` folder.

### Microsoft SQL Server Sizing Guidelines

The following table describes the Microsoft SQL Server sizing guidelines.

| Product | Sizing Guideline |
|---|---|
| Shared Services | Start with 100MB, and add more as the number of migrations with Lifecycle Management and the number of audit records increases. |

| Product | Sizing Guideline |
|---|---|
| EPM Workspace | The amount of 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. |
| Performance Management Architect | Oracle recommends starting with at least 250MB. |
| Smart Space | The amount of 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 Smart Space Collaborator database without having to increase the data file or tablespace. A shared pool size of 60 MB is used during configuration with EPM System Configurator. |
| Administration Services | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Essbase Studio | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Planning 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. |
| 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. |
| Performance Scorecard | 500 MB |
| Profitability and Cost Management | 100 MB |
| FDM | See the *Oracle Hyperion Financial Data Quality Management DBA Guide*. |

## Microsoft SQL Server Database Configuration Considerations

The following table describes the Microsoft SQL Server tablespace considerations.

| Product | Tablespace Considerations |
|---|---|
| Data Relationship Management | • Set the initial filesize at 1GB<br>• Turn Auto Growth ON and set at 10% |

# Using an IBM DB2 Database

## IBM DB2 Installation Information

During IBM DB2 installation, consider the following:

- When installing IBM DB2, clear the OLAP Starter Kit option.
- For Performance Management Architect, ensure that your DB2 database is installed on a different computer, and not the Dimension Server machine where the DB2 9 Runtime Client and DB2 .NET Data Provider must be installed.

  **Note:** If DB2 9 Runtime Client is installed on the Performance Management Architect computer, verify that an entry exists in the Global Assembly Cache.
- For Reporting and Analysis, ensure that the IBM DB2 Client Application Enabler is installed on the computers on which you install services. For Core Services and Job Factory Service, if you use an IBM DB2 RDBMS and Reporting and Analysis Services are on separate machines, use the Client Application Enabler to create a client connection to the Reporting and Analysis database.

## IBM DB2 Database Creation Considerations

For the best compatibility with non-ASCII character sets, an IBM DB2 database must be created using Unicode Transformation Format UTF-8 encoding (character set). Use of UTF-8 is required if you need multi-lingual support (multi-character set support).

Use the Client Configuration Assistant to set up a database alias that enables the EPM System product to connect to the database. Be sure to select "Register this Database for ODBC and As a System Data Source."

## IBM DB2 Roles and Privileges

Database users must be assigned the following privileges:

- CREATETAB
- BINDADD
- CONNECT

## IBM DB2 Sizing Guidelines

The following table describes the IBM DB2 sizing guidelines.

| Product | Sizing Guideline |
|---|---|
| Shared Services | Start with 100MB, and add more as the number of migrations with Lifecycle Management and the number of audit records increases. |

| Product | Sizing Guideline |
|---|---|
| EPM Workspace | The amount of 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. |
| Performance Management Architect | Oracle recommends starting with at least 250MB. |
| Smart Space | The amount of 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 Smart Space Collaborator database without having to increase the data file or tablespace. A shared pool size of 60 MB is used during configuration with EPM System Configurator. |
| Administration Services | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Essbase Studio | The amount of space needed depends on the metadata created; Oracle recommends starting with at least 32 MB. |
| Planning 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. |
| 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. |
| Performance Scorecard | 500 MB |

## IBM DB2 Database Configuration Considerations

The following table describes the IBM DB2 database configuration considerations.

| Product | Tablespace Considerations |
|---|---|
| General – All products | Minimum tablespace requirements:<br>● A bufferpool and a tablespace with a 32 KB pagesize<br>● A system temporary bufferpool and a system temporary tablespace with a 32 KB pagesize<br>**Note:** The default tablespace for the database user that owns the repository must not be partitioned.<br><br>Increase settings as follows:<br>● *bufferpool_name* bufferpool from 1000 (default) to 32000 (about the size of the largest audit table and indexes)<br>● IBMDEFAULTBP bufferpool from 1000 (default) to 100000<br>● *tmp_bufferpool_name* bufferpool from 1000 (default) to 8000 (temporary space bufferpool)<br>● DBHEAP from 1200 (default) to 33000<br>● SORTHEAP from 256 (default) to 2000<br>● LOGBFSIZ from 16 (default) to 128 |
| Shared Services and Essbase Studio | ● Increase the heap size as follows:<br>❍ drda_heap_sz parameter – 2048 or higher<br>❍ stmtheap, applheapsz, and app_ctl_heap_sz parameters – 8096<br>● Increase PAGESIZE to 32K.<br>● Increase bufferpool to 32768. |
| Performance Management Architect | ● Increase the heap size as follows:<br>❍ APP_CTL_HEAP_SZ to 8096<br>❍ APPLHEAPSZ to 8192<br>● Ensure that the user has privileges to create tablespaces and buffer pools. |
| Planning | Before you upgrade to Planning, you must configure the database with a large enough tablespace (having a page size of at least 32K) in order to support the Planning tables.<br>The following sample SQL script creates the necessary buffer pool and tablespace. Change the names and the disk location to reflect your needs. By default, the tablespace is named *HSPSPACE8_1* and is created in the C:\DB2DATA\HSPSPACE8_1 directory. The other settings are also defaults; the administrator should adjust the settings as appropriate for the environment.<br>Example:<br>`CREATE BUFFERPOOL hsppool8_1 SIZE 250 PAGESIZE 8 K;`<br>`CREATE REGULAR TABLESPACE hspspace8_1 PAGESIZE 8 K`<br>`MANAGED BY SYSTEM USING ('c:\db2data\hspspace8_1')`<br>`EXTENTSIZE 32 OVERHEAD 24.1 PREFETCHSIZE 8`<br>`TRANSFERRATE 0.9 BUFFERPOOL HSPPOOL8_1;`<br>The database administrator must make sure that the user who logs on to the Planning relational database has rights to use the new tablespace. |

## Performance Scorecard–Specific IBM DB2 Database Configuration Requirements

You must complete the following procedure before you configure Performance Scorecard.

➤ To prepare the IBM DB2 server:

1 **Increase the database log size to 6500.**

2 **Modify this script with information specific to your database:**

```
SET HPSDB=<hpsdatabase>
SET ADMIN=<adminusername>
SET ADMINPWD=<adminpassword>
SET TBSFILE=<table space file location>
SET TMPFILE=<temp file location>
DB2 CONNECT TO %HPSDB% USER %ADMIN% USING %ADMINPWD%
DB2 UPDATE DATABASE CONFIGURATION FOR %HPSDB% USING APPLHEAPSZ 512
DB2 CREATE BUFFERPOOL HPS_BP SIZE 250 PAGESIZE 32 K
DB2 TERMINATE
DB2STOP
DB2START
DB2 CONNECT TO %HPSDB% USER %ADMIN% USING %ADMINPWD%
DB2 CREATE REGULAR TABLESPACE HPS_SPACE1 PAGESIZE 32 K MANAGED BY SYSTEM USING
('%TBSFILE%') EXTENTSIZE 32 OVERHEAD 24.1 PREFETCHSIZE 32 TRANSFERRATE 0.9
BUFFERPOOL HPS_BP
DB2 COMMENT ON TABLESPACE HPS_SPACE1 IS 'HPS Table Space'
DB2 GRANT USE OF TABLESPACE HPS_SPACE1 TO PUBLIC
DB2 CREATE SYSTEM TEMPORARY TABLESPACE HPS_TEMP PAGESIZE 32 K MANAGED BY SYSTEM
USING ('%TMPFILE%') EXTENTSIZE 32 OVERHEAD 24.1 PREFETCHSIZE 32 TRANSFERRATE 0.9
BUFFERPOOL HPS_BP DB2 COMMENT ON TABLESPACE HPS_TEMP IS 'HPS Temporary Table Space'
DB2 TERMINATE
DB2STOP
DB2
```

3 **Save the file as** *name*`.bat`.

4 **From the Command Center, execute the script.**

5 **Windows 2003 users: Perform these steps:**

a. Select **Control Panel, then Computer Management, and then Users and Groups**.

b. On the **User Accounts** box, click **Advanced**.

c. Select **DB2Admin**, right-click and select **Properties**.

d. On the **Properties** box, select **Member Of**.

e. Select **Users**, click **Remove**, and click **Save**.

# Preparing Web Application Servers

Many EPM System products require a Web application server. To identify the products that require an application server and to view the list of supported application servers, see Chapter 4, "System Requirements."

For automatic deployment, EPM Workspace and the application being integrated must be deployed to the same Web application server type. For example, if EPM Workspace is deployed to Oracle Application Server, Performance Management Architect must also be deployed to Oracle Application Server.

## General Considerations

- When deploying to an application server, EPM System products cannot be installed to directories with names that contain spaces; for example, `c:\Program Files` is not acceptable (unless you use short path notation).
- For automatic deployment, the Web server must reside on the same machine where EPM Workspace will be deployed.
- If different operating system (OS) accounts are used to install and run EPM System and your Web application server, the Web application server OS account must be granted:
  - Read access to the Hyperion home directory, and to all subdirectories and files therein
  - Write access to *HYPERION_HOME*`/logs`

  In addition, when you use automatic deployment, the EPM System OS account must be granted write access to the application server files and directories.
- Set all Web applications to have a session timeout that exceeds 10 minutes.

## Oracle Application Server

Ensure that you have root access to the application server installation directory on AIX systems.

On UNIX systems, you must install and configure EPM System products using the same user you used to install Oracle Application Server.

When EPM System components will be deployed to Oracle Application Server in a distributed environment, all of the Oracle Application Server instances must:

- Reside in the same cluster topology
- Use a single instance of the Application Server Control (the Administration OC4J instance) to manage all the instances in the cluster
- Use a supported Web server to route requests to the J2EE containers (OC4J instances)

**Note:** For this release of EPM System, only Oracle HTTP Server (OHS) is supported for automatic deployment, and it must reside on the same machine where EPM Workspace will be deployed. For other Web servers, you must use manual deployment. For more information, refer to "Configuring Cluster Topologies" in the *Oracle® Application Server Administrator's Guide*.

During configuration with EPM System Configurator, for the Web application server deployment task, use the Advanced Set up feature to configure access using a logical address. See “Application Server Deployment: Oracle AS” in the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide* and the *Oracle Hyperion Enterprise Performance Management System Manual Deployment Guide*.

**Note:** The Planning logical address is defined using the “Manage Planning Clusters” task in EPM System Configurator.

## Embedded Java Container

- Oracle provides the Embedded Java Container, which is provided on the installation media for use with the deployment of EPM System products. Oracle does not support the Embedded Java Container application server for use outside EPM System product installations.
- For automatic deployment, the Web server must reside on the same machine where EPM Workspace will be deployed.

## WebLogic Server

- If the WebLogic Server installation path contains spaces, EPM System products cannot deploy to WebLogic Server. Ensure that the installation path includes no spaces.
- Before installing EPM System products, if you are upgrading from WebLogic Server 9.1 to WebLogic Server 9.2.x, you must follow the BEA procedure to migrate application environments: http://edocs.bea.com/common/docs92/upgrade/upgrading9091.html. Perform this procedure on the domain in the *HYPERION_HOME*`/deployments/WebLogic9` directory.
- For automatic deployment, the Web server must reside on the same machine where EPM Workspace will be deployed.
- When you install WebLogic Server, make sure to install the plugins (an optional component of the installation), which are required for Reporting and Analysis.
- When deploying all EPM System products to Oracle WebLogic Server on one machine, 6 GB of RAM is recommended.

## IBM WebSphere

- On UNIX platforms, the user account that installs and configures the EPM System product being deployed must have permission to create a WebSphere profile. Refer to the IBM InfoCenter for detailed instructions on granting permission to create a WebSphere profile as a non-root user.
- If the WebSphere installation path contains spaces, EPM System products cannot deploy to WebSphere. The default WebSphere installation path for Windows is `Program Files/IBM/WebSphere`. Change the installation path so that no spaces are included.
- For automatic deployment, the Web server must reside on the same machine where EPM Workspace will be deployed.
- Install the plugins from the IBM WebSphere 6.1.x supplemental components CD. They are required for Reporting and Analysis.
- When you are installing WebSphere, do not install the Web Services Gateway component of the WebSphere Application Server Network Deployment. The Web Services Gateway component expects messages in SOAP 1.1 format; however, EPM System generates messages in SOAP 1.0 format.

- If you are upgrading EPM System products from Release 9.3.x, and you are also upgrading from WebSphere 6.0.x to WebSphere 6.1.x, you must migrate application environments after you install EPM System products and before you configure them with EPM System Configurator. See "Upgrade Configuration Prerequisites" in the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

# Preparing Web Servers

For automatic deployment, the Web server must reside on the same machine where EPM Workspace will be deployed.

## Oracle HTTP Server

If you are using Oracle HTTP Server (OHS) as the Web server, increase the `ThreadsPerChild` parameter from the default value of 50 to 512 in the OHS Web Server configuration file (`httpd.conf`).

## Installing Microsoft Internet Information Services

The following products require IIS to be installed with ASP support enabled:

- Financial Management
- Strategic Finance
- FDM
- Data Relationship Management

### 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, make sure that IIS is installed.

### Enabling Existing .NET 2.0 Framework (Windows 2003)

Performance Management Architect requires .NET 2.0 Framework on the machine where you install the Dimension server. If .NET 2.0 Framework is not installed on your machine, Oracle Hyperion Enterprise Performance Management System Installer, Fusion Edition automatically installs it for you.

If you are using Windows 2003 and .NET 2.0 is installed, you must register and enable .NET 2.0 with IIS.

➤ To enable .NET 2.0 on Windows 2003 machines:

1 Open IIS Manager.

2 In the left pane, select **Web Service Extensions**.

3 If ASP.NET 2.0 is listed in the right pane, enable it by ensuring that the **Status** column is set to **Allowed**.

4 If ASP.NET 2.0 is not listed in the right pane and .NET 2.0 is installed, register .NET 2.0 with IIS:

   a. From the command prompt, go to this directory: `C:\Windows\Microsoft.NET\Framework\v2.0.50727`

   b. Enter `aspnet_regiis.exe –iru`.

   c. Repeat steps 1, 2, and 3.

## Financial Management Web Server Environment

- For Apache Web server, for synchronous load requests in Financial Management that take over 5 minutes to respond, avoid a timeout by setting `ProxyTimeout` to the IIS request timeout (3600s).

# Preparing Web Browsers

## Browser Settings

Ensure that browser preferences and options are enabled as follows:

- For Internet Explorer and Mozilla 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 Internet Explorer (Reporting and Analysis only):
  - Enable ActiveX. See "Enabling ActiveX (Reporting and Analysis)" on page 92.
  - Add the Reporting and Analysis Web site to the trusted zone. For example, in Internet Explorer, select **Tools, then Internet Options, then Security Tab, and then Trusted Sites,** and then click Sites.

## Enabling ActiveX (Reporting and Analysis)

To enable EPM System Web applications to function properly, Internet Explorer must be configured to enable support for ActiveX technologies.

EPM System products do not download ActiveX components to the browser. Instead, only HTML, JavaScript, and XML are sent to and by the client browser.

Guidelines to enable XML components:

- In the Web browser security settings, enable ActiveX controls and plug-in execution by setting ""Run ActiveX controls and plug-ins"" to "Enable."
- Enable ActiveX controls and plug-in execution by adding the `Project` Reporting and Analysis site as a trusted site and changing the custom security settings for trusted sites.
- Provide group policies that define the controls required for handling XML (the MS XML parser and XMLHTTPRequest controls) and enable these administrator approved controls for all sites or for select trusted sites.
- All other ActiveX controls and plug-ins remain disabled. Group policies can be implemented by zone by enabling the controls for sites in the trusted zone.
- For Active X enabled controls, enable the setting ""Script ActiveX controls marked safe for scripting"."

# 7 Ports

In This Chapter



## Default Ports and Shared Services Registry

During the configuration process, default port numbers for most EPM System products are automatically populated in 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.

**Upgrade Note!**

When upgrading products, the port number used in the earlier release is retained in Shared Services Registry. For example, the default listen port for the Shared Services web application in releases prior to 11.1.1.*x* was 58080 and is now 28080; however, after upgrading Shared Services to 11.1.1.*x*, the old port number of 58080 is retained in Shared Services Registry.

## Changing Application Server or Web Server Ports

If you change a port number by using application server or web server tools (administration console or configuration file), you must also change the port number by using EPM System Configurator so that the port numbers are synchronized with the Shared Services Registry. After changing a port number by using the application server or web server tools, run EPM System

Configurator and provide the new port number to update the Oracle's Hyperion Shared Services Registry.

**Note:** When using Oracle Application Server, web applications are accessed through the Oracle HTTP Server port (default is 7777).

# SSL Ports

For more information about configuring SSL ports, see *Oracle Hyperion Enterprise Performance Management System SSL Configuration Guide*.

# Foundation Services Ports

See these sections for information about Oracle's Hyperion® Foundation Services ports:


- "Shared Services Ports" on page 96
- "EPM Workspace Ports" on page 98
- "Configuration and Monitoring Console Ports" on page 99
- "Performance Management Architect Ports" on page 99
- "Calculation Manager Web Application Ports" on page 102
- "Smart Space Ports" on page 102


## Shared Services Ports

The following table describes the Shared Services Web application ports and where you can configure them.

**Table 13** Shared Services Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 28080 | EPM System Configurator |
| SSL listen port | 28443 | EPM System Configurator |
| Shutdown Port for embedded Java container | 28081 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/SharedServices9/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 28082 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/SharedServices9/conf/server.xml<br>For parameters, see the application server documentation. |

The following table describes the Shared Services default service ports and where you can configure them.

**Table 14** Shared Services Default Service Ports

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Remote Authentication Module | 28000 | Remote Authentication Module installation program |
| Oracle's Hyperion® Remote Authentication Module | Additional dynamic port (1) | Not configurable |
| OpenLDAP | 28089 | • UNIX: *HYPERION_HOME*/products/Foundation/openLDAP/startOpenLDAP.sh<br>• Windows: Edit the Windows Registry — HKEY_LOCAL_MACHINE/SOFTWARE/OpenLDAP/Parameters/Urls |
| Oracle Internet Directory (if used as Shared Services Native Directory) | 389<br>636 (SSL) | See the Oracle Internet Directory documentation. |

## Changing the OpenLDAP Port

Use this procedure if you want to run OpenLDAP from a non-default port. You cannot update the port on the User Directories Management page in Shared Services.

➤ To change the OpenLDAP port:

1. Log on to the Shared Services Console.
2. Expand **Application Group**, then expand **Foundation**, and click **Deployment Metadata**.
3. Expand **Shared Services Registry**, then expand **Foundation Services Product**, then expand **Shared Services**.
4. Under **Shared Services**, select **CSSConfig**. Then right-click and select **Export for Edit**.
5. Save the file to your desktop.
6. Edit the exported file to change the `dirPort` value to the custom port value and save the file.
7. In the Oracle's Hyperion® Shared Services Console, right-click **CSSConfig** and click **Import After Edit**.
8. Browse to find the `CSSConfig.xml` file that you edited, then click **Finish**.
9. Under **Shared Services**, select **Native Provider Properties**, then right-click and select `Native Directory@<server>_<default port>`, then click **Export for Edit**.

   **Note:** The default port can be either 28089 or 58089.
10. Save the `Native.Provider.properties` file to your desktop.
11. Edit the `Native.Provider.properties` file to change the port from 28089 or 58089 to the custom port, then save the file.
12. Under **Shared Services**, select **Native Provider Properties**, then right-click and select `Native Directory@<server>_<default port>`, then click **Import after Edit**.

**Note:** The default port can be 28089 or 58089.

13 **Browse to find the** `Native.Provider.properties` **file that you edited, then click Finish.**

14 **Stop all EPM System products.**

15 **Stop Shared Services including OpenLDAP.**

For Windows:

a. Open the Windows Registry Editor by typing the command `regedit`.

b. Go to `HKEY_LOCAL_MACHINE\SOFTWARE\OpenLDAP\Parameters` and change the **Urls string value** from `ldap://:28089` or `ldap://:58089` to `ldap://:<custom port>`

For UNIX:

a. Search for `startOpenLDAP.sh` under the *<HYPERION_HOME>*`/products/Foundation/openLDAP` directory.

b. Edit the file by replacing the existing port (28089 or 58089) with the custom port. Then save the changes.

16 **Restart OpenLDAP and Oracle's Hyperion® Shared Services.**

17 **Restart all other Oracle Hyperion Enterprise Performance Management System products.**

## EPM Workspace Ports

The following table describes the EPM Workspace default service ports and where you can configure them.

**Table 15** EPM Workspace Default Service Ports

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Foundation ports:<br>● Global Services Manager (GSM)<br>● Core Service<br>● Service Broker<br>● Job Service<br>● Event Service<br>● Repository Service | 6800 - 6810<br>Each service listed in this table is assigned a port within the range, either the default range 6800 - 6810, or the range specified during configuration.<br>To identify which port was assigned to each service, use the Configuration and Monitoring Console. | ● EPM System Configurator<br>● Configuration and Monitoring Console |
| Annotation Service | 8199 | Configuration and Monitoring Console |

The following table describes the EPM Workspace Web Server ports and where you can configure them.

**Table 16** EPM Workspace Web Server Port

| Server | Default Server Port | Where Configurable |
|---|---|---|
| Apache and IBM HTTP Server | 19000 | *WEB_SERVER_HOME*/conf/httpd.conf |
| IIS and Oracle HTTP Server | 80<br>443 (SSL) | Microsoft Internet Information Services (IIS) Manager Console. Change the TCP port value setting. |

The following table describes the Oracle Enterprise Performance Management Workspace, Fusion Edition Web application ports and where you can configure them.

**Table 17** EPM Workspace Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 45000 | EPM System Configurator |
| Additional listen port (1) | Dynamic | Not configurable |
| SSL listen port | 45043 | EPM System Configurator |
| Shutdown port for embedded Java container | 45001 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/Workspace/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 45002 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/Workspace/conf/server.xml<br>For parameters, see the application server documentation. |

## Configuration and Monitoring Console Ports

The following table describes the Configuration and Monitoring Console ports and where you can configure them.

**Table 18** Configuration and Monitoring Console Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Configuration and Monitoring Console UI | 55000 | *HYPERION_HOME*/common/workspacert/9.5.0.0/ui/conf/server.xml |
| Configuration and Monitoring Console Agent | 6860 | Configuration and Monitoring Console |

## Performance Management Architect Ports

The following table describes the Performance Management Architect Web application ports and where you can configure them.

**Table 19** Performance Management Architect Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| **Performance Management Architect UI** | | |
| Listen port | 19091 (can be configured for SSL) | EPM System Configurator |
| SSL listen port | 19047 | EPM System Configurator |
| Shutdown port for embedded Java container | 19092 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/EPMAWebServer/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 19093 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/EPMAWebServer/conf/server.xml<br>For parameters, see the application server documentation. |
| **Data Synchronizer Web Service (Performance Management Architect)** | | |
| Listen port | 19101 (can be configured for SSL) | EPM System Configurator |
| SSL listen port | 19145 | EPM System Configurator |
| Shutdown port for embedded Java container | 19102 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/EPMADataSynchronizer/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 19103 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/EPMADataSynchronizer/conf/server.xml<br>For parameters, see the application server documentation. |

The following table describes the Performance Management Architect Dimension Server default service ports and where you can configure them.

**Table 20** Performance Management Architect Dimension Server Default Service Ports

| Services | Default Port Number | Where Configurable |
|---|---|---|
| Server Manager | 5250 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><ServerManagerPort>*portNumber*</ServerManagerPort> |

| Services | Default Port Number | Where Configurable |
|---|---|---|
| Process Manager | 5251 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><Port>*portNumber*</Port><br>web.config file under the webservices directory<br><appSettings> parameter<br><add key="ProcessManagerPort" value="*portNumber*"/> |
| Event Subscription | 5252 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><EventSubscriptionPort>*portNumber*</EventSubscriptionPort> |
| Event Manager | 5253 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><EventManagerPort>*portNumber*</EventManagerPort> |
| Job Manager | 5254 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><JobManagerPort>*portNumber*</JobManagerPort> |
| Engine instances | 5100–5140 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><MinEnginePort>*portNumber*</MinEnginePort><br><MaxEnginePort>*portNumber*</MaxEnginePort> |
| Net JNI Bridge | 5255 | *HYPERION_HOME*/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin/BPMA_Server_Config.xml<br><NetJNIBridgePort>*portNumber*</NetJNIBridgePort> |

**Note:** The only Dimension Server service that can be started directly is Process Manager.

### Upgrade Note!

The Dimension Server services ports have changed for this release. During an upgrade of Performance Management Architect, the old port numbers are changed to the new default ports for this release (listed above). If necessary, you can modify these ports to use the old port numbers.

The following table describes the Oracle Hyperion EPM Architect, Fusion Edition Web server default service ports and where you can configure them.

**Table 21** Performance Management Architect Web Server Port

| Default Web Server Port | Where Configurable |
|---|---|
| 80 | Microsoft Internet Information Services (IIS) Manager Console. Change the TCP port value setting. |

# Calculation Manager Web Application Ports

The following table describes the Hyperion Calculation Manager Web application ports and where you can configure them.

**Table 22** Calculation Manager Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8500 | EPM System Configurator |
| Shutdown port | 8501 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/calcmgr/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 8502 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/calcmgr/conf/server.xml<br>For parameters, see the application server documentation. |

# Smart Space Ports

The following table describes the Oracle Smart Space, Fusion Edition ports and where you can configure them.

| Type of Port | Default Port Number | Where Configurable |
|---|---|---|
| Smart Space Collaborator Client | 5222 | EPM System Configurator |
| Smart Space Collaborator Admin Console | 17086 | EPM System Configurator |
| Smart Space Collaborator Secure Admin Console | 17096 | EPM System Configurator |
| Oracle Smart Space Collaborator, Fusion Edition Wildfire Jabber Server | 17777 | EPM System Configurator |
| Web application listen port | 17080 | EPM System Configurator |
| Web application SSL listen port | 17090 | EPM System Configurator |
| Web application shutdown port | 17081–17085 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/SmartSpaceWebServices/conf/server.xml<br>For parameters, see the application server documentation. |
| Web application AJP connector port | 17081–17085 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/SmartSpaceWebServices/conf/server.xml<br>For parameters, see the application server documentation. |

# Essbase Ports

See these sections for information about Oracle Essbase ports:



## Essbase Ports

The following table describes the Essbase default service ports and where you can configure them.

**Table 23** Essbase Default Service Ports

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Essbase Agent | 1423 | EPM System Configurator |
| Essbase server applications (ESSSVR) | 32768–33768 (two ports per process) | EPM System Configurator |
| Oracle Essbase Integration Services Server | 3388 | *HYPERION_HOME*/products/Essbase/eis/bin/ais.cfg<br>Add `-P`*portnumber* |

**Note:** Starting in release 11.1.1, if you do not specify Oracle Essbase port numbers in EPM System Configurator, the default ports are used.

**Note:** When multiple instances of Essbase Server are installed on one computer, you must specify a unique port number for each instance. By default, the first instance of Essbase Server uses port number 1423, which is specified in EPM System Configurator. Specify a different port number for the second instance during configuration with EPM System Configurator. You connect to subsequent installations by specifying the machine name and the agent port number, in the form: *machineName:agentPort* when connecting.

## Administration Services Ports

The following table describes the Oracle Essbase Administration Services Web application ports and where you can configure them.

**Table 24** Administration Services Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 10080 | EPM System Configurator |
| SSL listen port | 10083 | EPM System Configurator |
| Shutdown port for embedded Java container | 10081 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/eas/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 10082 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/eas/conf/server.xml<br>For parameters, see the application server documentation. |

# Provider Services Ports

The following table describes the Oracle Hyperion Provider Services Web application ports and where you can configure them.

**Table 25** Provider Services Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 13080 | EPM System Configurator |
| SSL listen port | 13083 | EPM System Configurator |
| Shutdown port for embedded Java container | 13081 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/aps/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 13082 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/aps/conf/server.xml<br>For parameters, see the application server documentation. |

# Smart Search Command Line Utility Ports

The following table describes the Oracle Hyperion Smart Search Command Line Utility Web application ports and where you can configure them.

**Table 26** Smart Search Command Line Utility Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 16080 | EPM System Configurator |
| SSL listen port | 16843 | EPM System Configurator |

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Shutdown port for embedded Java container | 16081 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/SmartSearch/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 16082 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/SmartSearch/conf/server.xml<br>For parameters, see the application server documentation. |

## Essbase Studio Ports

The following table describes the Oracle Essbase Studio ports and where you can configure them.

**Table 27** Essbase Studio Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 5300 | *HYPERION_HOME*/products/Essbase/EssbaseStudio/Server/server.properties<br>Parameters: transport.port=*new port number* |
| HTTP listen port | 9080 | *HYPERION_HOME*/products/Essbase/EssbaseStudio/Server/server.properties<br>Parameters: Server.httpPort=*new port number* |

## Application Builder for .NET Ports

The following table describes the Oracle's Hyperion® Application Builder for .NET Web application ports and where you can configure them.

**Table 28** Application Builder for .NET Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 22080 | EPM System Configurator |
| SSL listen port | 22083 | EPM System Configurator |
| Shutdown port for embedded Java container | 22081 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/habnet/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 22082 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/habnet/conf/server.xml<br>For parameters, see the application server documentation. |

# Reporting and Analysis Ports

See these sections for information about Oracle's Hyperion Reporting and Analysis ports:



# Financial Reporting Ports

The following table describes the Financial Reporting Web application ports and where you can configure them.

**Table 29** Financial Reporting Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8200 | EPM System Configurator |
| SSL listen port | 8243 | EPM System Configurator |
| Shutdown port for embedded Java container | 8201 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/FinancialReporting/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 8202 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/FinancialReporting/conf/server.xml<br>For parameters, see the application server documentation. |

The following table describes the Financial Reporting default service ports and where you can configure them.

**Table 30** Financial Reporting Default Service Ports

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Financial Reporting Report Service | Dynamic (2) | *HYPERION_HOME*/products/biplus/lib/fr_repserver.properties<br>Parameters: HRRepSvrPort1, HRRepSvrPort2 |
| Financial Reporting Scheduler Service | Dynamic | *HYPERION_HOME*/products/biplus/lib/fr_scheduler.properties<br>Parameter: HRSchdSvrPort |
| Financial Reporting Print Service | Dynamic | *HYPERION_HOME*/products/biplus/lib/fr_printserver.properties<br>Parameter: HRPrintSvrPort |

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Oracle Hyperion Financial Reporting, Fusion Edition Communication Service | 8299 | *HYPERION_HOME*/products/biplus/lib/fr_global.properties<br>Parameter: RMIPort |
| Remote ADM Server port for Planning datasource access | Dynamic | *HYPERION_HOME*/common/ADM/*VERSION*/lib/ADM.properties file on the Report Server machine<br>Parameter: ADM_RMI_SERVER_PORT |

## Interactive Reporting Ports

The following table describes the Interactive Reporting default service ports and where you can configure them.

**Table 31** Interactive Reporting Default Service Ports

| Service | Default Port Number | Where Configurable |
|---|---|---|
| • Data Access Service (DAS)<br>• Oracle's Hyperion® Interactive Reporting Service<br>• Logging Service | 6810 - 6816<br>Each service listed in this table is assigned a port within the range, either the default range 6810 - 6816, or the range specified during configuration.<br>To identify which port was assigned to each service, use the Configuration and Monitoring Console. | • EPM System Configurator<br>• Configuration and Monitoring Console |

## Web Analysis Ports

The following table describes the Oracle's Hyperion® Web Analysis Web application ports and where you can configure them.

**Table 32** Web Analysis Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 16000 | EPM System Configurator |
| Additional listen ports (2) | Dynamic | Not configurable |
| SSL listen port | 16043 | EPM System Configurator |
| Shutdown port for embedded Java container | 16001 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/WebAnalysis/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 16002 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/WebAnalysis/conf/server.xml<br>For parameters, see the application server documentation. |

# Financial Performance Management Applications Ports

See these sections for information about Oracle's Hyperion Financial Performance Management Applications ports:



## Financial Management Ports

The following table describes the Financial Management default service ports and where you can configure them.

**Table 33** Financial Management Default Service Port

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Financial Management Application Server | 135-plus ephemeral high-range ports (1024–65536) | Windows settings—Fix DCOM ephemeral ports.<br>See the Microsoft support article describing how to set the ports used by DCOM: `http://support.microsoft.com`. Search for "restrict DCOM port." |

The following table describes the Oracle Hyperion Financial Management, Fusion Edition Web server port and where you can configure it.

**Table 34** Financial Management Web Server Port

| Default Web Server Port | Where Configurable |
|---|---|
| 80 (HTTP) or 443 (when SSL is enabled) | In Microsoft Internet Information Services (IIS) Manager Console, change the TCP port value setting. |

## Planning Ports

The following table describes the Planning Web application ports and where you can configure them.

**Table 35** Planning Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 8300 | EPM System Configurator |
| Additional listen port (1) | Dynamic | Not configurable |
| SSL listen port | 8343 | EPM System Configurator |
| Shutdown port for embedded Java container | 8301 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/HyperionPlanning/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 8302 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/HyperionPlanning/conf/server.xml<br>For parameters, see the application server documentation. |

The following table describes the Planning default service ports and where you can configure them.

**Table 36** Planning Default Service Port

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Planning RMI Server | 11333 | *HYPERION_HOME*/common/RMI/*VersionNumber*/HyperionRMI_Port.properties<br>Parameter: registryPort<br>**Note:** For information about additional requirements when changing Oracle Hyperion Planning, Fusion Edition ports, see "Reconfiguring EPM System Products" in *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*. |

# Performance Scorecard Ports

The following table describes the Performance Scorecard Web application ports and where you can configure them.

**Table 37** Performance Scorecard Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 18080 | EPM System Configurator |
| SSL listen port | 18443 | EPM System Configurator |
| Shutdown port for embedded Java container | 18081 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/HPSWebReports/conf/server.xml<br>For parameters, see the application server documentation. |

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| AJP connector port for embedded Java container | 18082 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/HPSWebReports/conf/server.xml<br>For parameters, see the application server documentation. |

The following table describes the Oracle Hyperion Performance Scorecard, Fusion Edition Alerter Web application ports and where you can configure them.

**Table 38** Performance Scorecard Alerter Web Application Ports

| Port Type | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 18090 | EPM System Configurator |
| SSL listen port | 18444 | EPM System Configurator |
| Shutdown port for embedded Java container | 18091 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/HPSAlerter/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 18092 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/HPSAlerter/conf/server.xml<br>For parameters, see the application server documentation. |

## Strategic Finance Ports

The following table describes the Strategic Finance default service port and where you can configure it.

**Table 39** Strategic Finance Default Service Port

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Strategic Finance Server | 7750 | EPM System Configurator<br>**Note:** If you change this port, you must also change it for each Strategic Finance client in the Connection dialog box. |

The following table describes the Oracle Hyperion Strategic Finance, Fusion Edition Web server port and where you can configure it.

**Table 40** Strategic Finance Web Server Port

| Default Web Server Port | Where Configurable |
|---|---|
| 80 (HTTP) or 443 (HTTPS) | Microsoft Internet Information Services (IIS) Manager Console. (Change the TCP port value setting.) |

## Profitability and Cost Management Ports

The following table describes the Oracle Hyperion Profitability and Cost Management, Fusion Edition ports and where you can configure them.

**Table 41 Profitability and Cost Management Default Ports**

| Type of Port | Default Port Number | Where Configurable |
|---|---|---|
| Listen port | 6756 | EPM System Configurator |
| Additional listen port | Dynamic | Not configurable |
| SSL listen port | 6743 | Oracle's Hyperion Enterprise Performance Management System Configurator |
| Shutdown port for embedded Java container | 6757 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/Profitability/conf/server.xml<br>For parameters, see the application server documentation. |
| AJP connector port for embedded Java container | 6758 | *HYPERION_HOME*/deployments/*AppServNameAndVersion*/Profitability/conf/server.xml<br>For parameters, see the application server documentation. |

# Data Management Ports

See these sections for information about Oracle's Data Management ports.

- "FDM Ports" on page 111
- "Data Relationship Management Ports" on page 112

## FDM Ports

The following table describes the FDM default service ports and where you can configure them.

**Table 42 FDM Default Service Ports**

| Service | Default Port Number | Where Configurable |
|---|---|---|
| FDM load balancer FDM application server | 135-plus ephemeral high-range ports (1024–65536) | Windows settings—Fix DCOM ephemeral ports.<br>For more information, see the Microsoft support article describing how to set the ports used by DCOM: http://support.microsoft.com. Search for "restrict DCOM port." |

| Service | Default Port Number | Where Configurable |
|---|---|---|
| File sharing | 137–139, 445 | Controlled by the operating system. By default, file sharing is enabled between all FDMapplication servers and the data server. Default port numbers are the following:<br>● NetBIOS Datagram Service = port 138<br>● NetBIOS Name Resolution = port 137<br>● NetBIOS Session Service = port 139<br>If NetBIOS is turned OFF, then use SMB = port 445 |
| Firewall | 135 plus ephemeral high-range ports (1024–65536) | Windows settings—Fix DCOM ephemeral ports.<br>For more information, see the Microsoft support article describing how to set the ports used by DCOM: `http://support.microsoft.com`. Search for "restrict DCOM port." |

**Note:** For FDM, the DCOM port 135 must be open if you are running in a DMZ environment.

The following table describes the Oracle Hyperion Financial Data Quality Management, Fusion Edition Web server port and where you can configure it.

**Table 43** FDM Web Server Port

| Default Web Server Port | Where Configurable |
|---|---|
| 80 (HTTP) or 443 (HTTPS) | Microsoft Internet Information Services (IIS) Manager Console. (Change the TCP port value setting.) |

# Data Relationship Management Ports

The following table describes the Data Relationship Management default service ports and where you can configure them.

**Table 44** Data Relationship Management Default Service Port

| Service | Default Port Number | Where Configurable |
|---|---|---|
| Data Relationship Management | 135-plus ephemeral high-range ports (1024–65536) | ● `config.xml` using the Data Relationship Management Console<br>● Windows settings—Fix DCOM ephemeral ports.<br>For more information, see the Microsoft support article describing how to set the ports used by DCOM: `http://support.microsoft.com`. Search for "restrict DCOM port." |

The following table describes the Oracle Hyperion Data Relationship Management, Fusion Edition Web server ports and where you can configure them.

**Table 45** Data Relationship Management Web Server Ports

| Default Web Server Ports | Where Configurable |
|---|---|
| 80 (HTTP)<br>443 (HTTPS) | Microsoft Internet Information Services (IIS) Manager Console. (Change the TCP port value setting.) |

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## P



## R



## S

## T



## U



## V



## W