

**HYPERION**  
*RELEASE 9.3.1*

USING ORACLE® ENTERPRISE  
MANAGER GRID CONTROL TO  
MONITOR ORACLE'S HYPERION  
PRODUCTS

ORACLE | Hyperion

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## About this Document

This white paper presents information about integrating Hyperion products with Oracle Enterprise Manager Grid Control, which provides a complete management solution for Hyperion products.

This document presents one of the many methods that can be used to leverage the default service monitoring capabilities of Enterprise Manager Grid Control to monitor Hyperion product services. See Enterprise Manager Grid Control documentation for detailed information on using and administering Enterprise Manager Grid Control.

## Overview of Oracle Enterprise Manager Grid Control

Oracle Enterprise Manager Grid Control is a solution for managing your entire computing enterprise. Enterprise Manager Grid Control allows you to use a Web browser to manage Oracle databases, application servers, host computers, and Web applications, as well as the hardware and software that supports the Web applications.

Enterprise Manager Grid Control provides a wide range of additional features that increase the productivity and efficiency of your IT personnel. For example, you can use Enterprise Manager to monitor the performance and availability of your Web applications, to review and manage the configuration of your software and hardware inventories, and to develop and maintain central management policies, such as administrator roles and privileges, alert thresholds and baselines, automatic notifications, and blackout schedules.

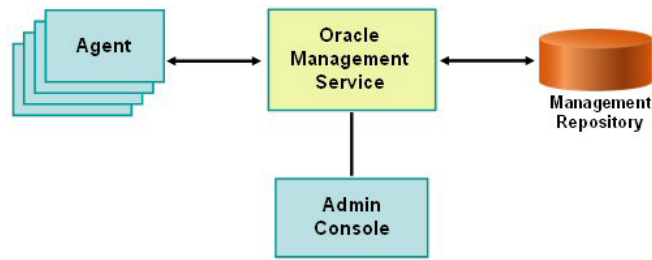
For a complete description of the capabilities and architecture of Enterprise Manager Grid Control, see [Oracle Enterprise Manager Grid Control Concepts Guide](#).

## Oracle Enterprise Manager Grid Control and Hyperion Products

Oracle Enterprise Manager Grid Control monitors Hyperion product services and generates alerts and warnings using standard Enterprise Manager Grid Control metrics. Enterprise Manager Grid Control provides the capabilities to:

- Centrally monitor services
- Issue alerts when services are not available or when service performance degrades below a predefined threshold
- Define and monitor service levels

Enterprise Manager Grid Control can manage components (servers and processes) and the services (functions provided by components) that run on them. Oracle Management Services use agents for monitoring purposes. Beacon, a component of agents, can monitor services running on remote machines. The concept:



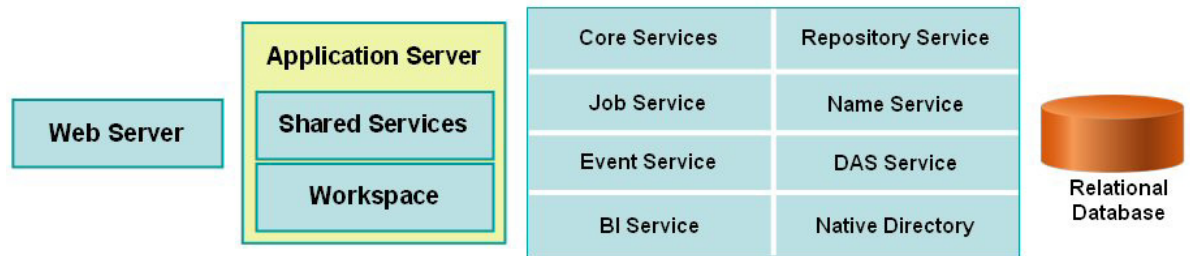
Services are monitored using the generic services provided by Enterprise Manager Grid Control.

## Hyperion Products Architecture

- “Foundation Services” on page 3
- “Reporting and Analysis” on page 3
- “Essbase” on page 4
- “Planning” on page 4
- “Financial Management” on page 4

## Foundation Services

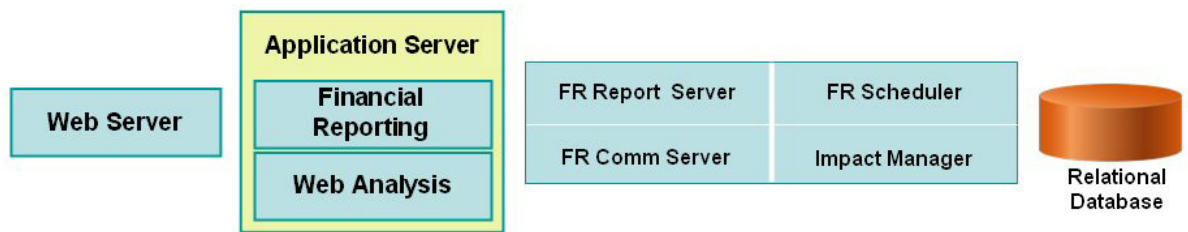
Oracle's Hyperion® Foundation Services provide the core infrastructure components that all Hyperion products use. The component diagram:



Oracle's Hyperion® Workspace is installed as a part of the Oracle's Hyperion® Reporting and Analysis – System 9 installation.

## Reporting and Analysis

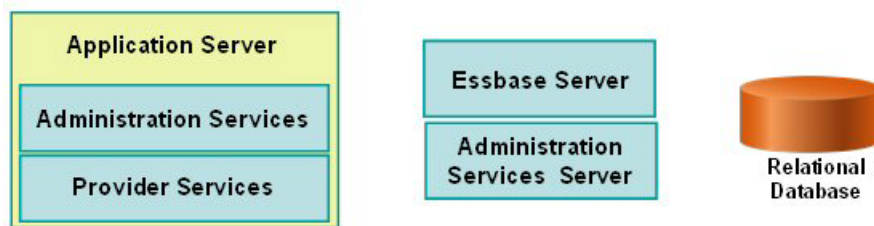
Reporting and Analysis comprises three products—Oracle's Hyperion® Interactive Reporting – System 9, Oracle's Hyperion® Financial Reporting – System 9, and Oracle's Hyperion® Web Analysis – System 9. Workspace, a part of Oracle's Hyperion® Foundation Services, is installed with Reporting and Analysis. The component diagram:



## Essbase

Oracle's Hyperion® Essbase® – System 9 provides an enterprise-class analysis infrastructure that supports the development of sophisticated business models that use Essbase data. It provides the analysis you require through a standalone deployment that fully uses data from any enterprise data source, or as a foundation for custom or packaged BPM solutions.

Essbase is the administrative interface to Essbase. Oracle's Essbase® Integration Services is a metadata-driven environment to integrate business analysis applications built on Hyperion® System™ 9 BI+™ Essbase Analytics™ with detailed data stored in relational databases. The component diagram:



## Planning

Oracle's Hyperion® Planning – System 9 is a centralized, Web-based planning, budgeting, and forecasting solution that drives collaborative, integrated, event-based planning processes throughout the enterprise for a wide range of financial and operational needs. Planning component diagram:



## Financial Management

Oracle's Hyperion® Financial Management – System 9, a Web-based financial consolidation and reporting application, assists in improving the financial close and reporting process, and helps reduce internal control risks. It delivers financial analysis that supports strategic and operational management decisions. The component diagram:



## Assumptions

- Enterprise Manager Grid Control 10gRelease 2 or later is installed.
- If you are using the JDBC drivers supplied by Hyperion to monitor SQL Server or DB/2 databases, Enterprise Manager Grid Control is patched with the patch for bug 6328367.
- Enterprise Manager Grid Control agent is installed on each machine that hosts the Hyperion product, databases, and services that Enterprise Manager Grid Control should manage. While installing the agent, ensure that you correctly identify the Enterprise Manager Grid Control management server that should manage the machine.
- Hyperion product Release 9.3.x is installed and configured as instructed in the appropriate Hyperion product installation guide.

## Setting up Enterprise Manager Grid Control to Monitor Hyperion Products

You must complete these tasks before you can use Enterprise Manager Grid Control to monitor the services belonging to Hyperion products:

- [“Creating a System” on page 5](#)
- [“Creating Generic Services and Web Applications for Hyperion Products” on page 6](#)
- [“Creating a Group for Hyperion Products” on page 13](#)

### Creating a System

A system is a logical grouping of infrastructure components such as servers, databases, and application servers that work together to support the monitoring of Hyperion product services.

Hyperion recommends that you create one system to monitor Hyperion product resources.

► To create a system:

- 1 In Enterprise Manager Grid Control console, select **Targets > Systems**.
- 2 From **Add**, select **System**.
- 3 Click **Go**.

The Create System screen opens.

ORACLE Enterprise Manager 10g  
Grid Control

Home Targets Deployments Alerts Compliance Jobs Reports

Hosts | Databases | Application Servers | Web Applications | Services | Systems | Groups | All Targets | Siebel | Collaboration Suites

### Create System

Cancel OK

Components Topology Charts Columns Dashboard

\* Name

**Components**

Remove Add

Select All Select None

Select	Name	Type
<input type="checkbox"/>	ctg-test2.hyperion.com	Host
<input type="checkbox"/>	ctg-training.hyperion.com	Host

**Time Zone**

Time Zone

Components Topology Charts Columns Dashboard

Cancel OK

- 4 In **Name**, enter a unique system name; for example, `System9`.
- 5 In **Components**, click **Add** and select the host machines where Hyperion product services are running.
- 6 Select the time zone to use in system-level operations; for example, in system statistics and scheduling.
- 7 Click **OK**.

## Creating Generic Services and Web Applications for Hyperion Products

A service is an entity that provides useful functions to end-users; for example, E-mail. A service is supported by one or more underlying system components.

A Web application models a Web-based application or a Web site. A Web application consolidates the components of your Web application and determines the availability, performance, and usage of the application.

See Oracle Enterprise Manager Grid Control documentation for detailed information.

You should create a Web application service for each Hyperion Web application you need to monitor. Similarly, you should create a generic service to monitor each Hyperion product service or relational database. For example, Oracle's Hyperion® Shared Services has the following three manageable components:

- Shared Services Web application
- OpenLDAP (Native Directory) service
- Relational database

To monitor these components, create two generic services and a Web application service (for Shared Services Web application).

► To create services and Web applications:

**1** In Enterprise Manager Grid Control console, select **Targets > Services**.

**2** From **Add**, select an option:

- **Generic Service** to create a service
- **Web Application** to create a Web application

**3** Click **Go**.

Depending on your selection, the Create Generic Service Wizard or Create Web Application Wizard opens.

The Create Generic Service Wizard guides you through the steps involved in creating a generic service and linking it to the system that you configured earlier.

The Create Web Application Wizard guides you through the steps involved in creating a Web application service and linking it to the system that you configured earlier. See [“Creating a System” on page 5](#).

For detailed instructions on how to create a service, see *Oracle Enterprise Manager Grid Control Online Help* or documentation.

**4** In **Name**, enter a unique service name.

**5** In **System**, click **Select System**.

- a. In **Search and Select: Systems**, select the system to use to monitor Hyperion products. See [“Creating a System” on page 5](#).
- b. Click **Select**.

**6** Click **Next**.

**7** Using the wizard, complete the remaining steps to create the generic service or Web application service. Click **Finish** in the final step to create the service or Web application.

See the following sections for some of the settings that you must enter into the wizard.

- [“Common Settings” on page 8](#)
- [“Settings for Shared Services” on page 10](#)
- [“Settings for Essbase” on page 10](#)
- [“Settings for Planning” on page 11](#)
- [“Settings for Financial Management” on page 11](#)
- [“Settings for Interactive Reporting” on page 12](#)
- [“Settings for Financial Reporting” on page 13](#)
- [“Settings for Web Analysis” on page 13](#)
- [“Settings for Performance Scorecard” on page 13](#)

## Common Settings

**Table 1**

Field/Area	Description
<b>Step 1: General</b>	
System	Select the system; for example, <code>System9</code> that you created. See <a href="#">“Creating a System” on page 5</a> .
Key Component	Select only the component that must be used to determine service availability or cause analysis.
<b>2: Availability</b>	
Define availability based on	<code>Service Test</code> if you have a service that can be monitored.
<b>3: Service Test</b>	
Test Type	Each service must implement at least one service test. Select one of the following test types: <ul style="list-style-type: none"><li>● <code>Web Transaction</code></li><li>● <code>Port Checker</code></li><li>● <code>JDBC SQL Timing</code></li></ul> See the following product-specific sections to determine the test type and test parameters for each component.*
<b>4: Beacons</b>	
Agent	Select an Enterprise Manager Grid Control agent configured on the machine where the service is running.
Proxy Server	<b>Optional:</b> Name of the proxy server that the beacon should use to access the service.
Proxy Port	<b>Optional:</b> Proxy server port to which the beacon should connect.
<b>5: Performance Metrics</b>	
	Add at least one predefined performance metric based on the service test you defined. Modify the warning and critical threshold values to suit your requirements. See <a href="http://download-east.oracle.com/docs/cd/B16240_01/doc/em.102/b16230.pdf">http://download-east.oracle.com/docs/cd/B16240_01/doc/em.102/b16230.pdf</a> for information on predefined performance metrics.
<b>6: Usage Metrics</b>	
	Add at least one usage metric to measure the demand for the service. After defining usage metrics, add threshold values to generate alerts.

\*This document discusses only one of the many possible service tests can be defined to monitor a service. You may choose to define a different service test. See Enterprise Manager Grid Control documentation for detailed information on service tests.

## Common Database Test Parameters for JDBC SQL Timing Service Test

- [“Assumptions” on page 9](#)



- “Oracle Database Test Parameters” on page 9
- “Microsoft SQL Server Database Test Parameters” on page 9
- “IBM DB/2 Database Test Parameters” on page 9

### Assumptions

- The JAR file for the JDBC driver class (`<Hyperion_Home>\common\JDBC\DataDirect\3.6\lib\hyjdbc.jar`) is copied into `<Agent_home>\sysman\jlib`.
- `<Agent_home>\sysman\config\classpath.lst` is updated to include `hyjdbc.jar` stored in `<Agent_home>\sysman\jlib`.

In these paths, `<Agent_home>` refers to the directory; for example, `C:\OracleHomes\agent10g\` (Windows), where Enterprise Manager Grid Control agent is installed.

- If you are using the JDBC drivers supplied by Hyperion to monitor SQL Server or DB/2 databases, Enterprise Manager Grid Control is patched with the patch for Bug 6328367.

### Oracle Database Test Parameters

**Connection String:** `jdbc:hyperion:oracle://<host>:<port>;SID=<sid>;` for example, `jdbc:hyperion:oracle://MyServer:1521;SID=orcl`

**Class String:** `hyperion.jdbc.oracle.OracleDriver`

### Microsoft SQL Server Database Test Parameters

**Connection String:** `jdbc:hyperion:sqlserver://<host>:<port>;DatabaseName=<DBname>;` for example, `jdbc:hyperion:sqlserver://MyServer:1433;DatabaseName=MySQLdb`

**Class String:** `hyperion.jdbc.sqlserver.SQLServerDriver`

#### Note:

If you are using the JDBC driver supplied by Hyperion, ensure that Enterprise Manager Grid Control is patched with the patch for Bug 6328367.

### IBM DB/2 Database Test Parameters

**Connection String:** `jdbc:hyperion:db2://<host>:<port>;DatabaseName=<DBname>;MaxPooledStatements=40;DynamicSections=1000;` for example, `jdbc:hyperion:oracle://MyServer:1527;DatabaseName=MyDb2db`

**Class String:** `hyperion.jdbc.db2.DB2Driver`

**Note:**

If you are using the JDBC driver supplied by Hyperion, ensure that Enterprise Manager Grid Control is patched with the patch for Bug 6328367.

## Settings for Shared Services

**Table 2**

Component	Test Type	Test Parameters
Shared Services (Web application)	Web Transaction	<b>Basic Single URL:</b> http://<host>:<port>/interop/index.jsp, for example: http://MyServer:58080/interop/index.jsp
Database	JDBC SQL Timing	See <a href="#">“Common Database Test Parameters for JDBC SQL Timing Service Test” on page 8</a> . <b>User Name:</b> The user name that was identified during Shared Services database configuration. <b>Password:</b> The database password corresponding to the user name. <b>Query statement:</b> <code>select count(*) from hub_metainfo</code>
Native Directory	Port Checker	<b>Host:</b> Name of the machine where Oracle's Hyperion® Shared Services is installed. <b>Expected Open Port:</b> Port number; for example, 58089, where Native Directory is running. <b>Expected closed ports:</b> None.

## Settings for Essbase

**Table 3**

Component	Test Type	Test Parameters
Essbase Server	Port Checker	<b>Host:</b> Name of the machine where Essbase Server is running. <b>Expected Open Port:</b> Port number, for example 1423, where Oracle's Hyperion® Essbase® - System 9 Server is running. <b>Expected closed ports:</b> None.
Oracle's Essbase® Administration Services (Web application)	Web Transaction	<b>Basic Single URL:</b> http://<host>:<port>/easconsole; for example: http://MyServer:10080/admin
Oracle's Hyperion® Provider Services (Web application)	Web Transaction	<b>Basic Single URL:</b> http://<host>:<port>/aps; for example: http://MyServer:13080/aps

Component	Test Type	Test Parameters
Integration Services	Port Checker	<p><b>Host:</b> Name of the machine where Integration Services is running.</p> <p><b>Expected Open Port:</b> Port number, for example 3388, where Oracle's Essbase® Integration Services is running.</p> <p><b>Expected closed ports:</b> None.</p>

## Settings for Planning

Table 4

Component	Test Type	Test Parameters
Planning (Web application)	Web Transaction	<p><b>Basic Single URL:</b>  <a href="http://&lt;host&gt;:&lt;port&gt;/HyperionPlanning">http://&lt;host&gt;:&lt;port&gt;/HyperionPlanning</a>, for example:  <a href="http://MyServer:8300/HyperionPlanning">http://MyServer:8300/HyperionPlanning</a></p>
Database	JDBC SQL Timing	<p>See <a href="#">“Common Database Test Parameters for JDBC SQL Timing Service Test” on page 8</a>.</p> <p><b>User Name:</b> The user name that was identified during Oracle's Hyperion® Planning – System 9 database configuration.</p> <p><b>Password:</b> Database password corresponding to the user name.</p> <p><b>Query statement:</b> <code>select count(*) from hpsys_properties</code></p>

## Settings for Financial Management

Table 5

Component	Test Type	Test Parameters
Internet Information System	Web Transaction	<p><b>Basic Single URL:</b>  <a href="http://&lt;host&gt;:&lt;port&gt;/HFM">http://&lt;host&gt;:&lt;port&gt;/HFM</a>, for example: <a href="http://MyServer:80/HFM">http://MyServer:80/HFM</a></p>
Database	JDBC SQL Timing	<p>See <a href="#">“Common Database Test Parameters for JDBC SQL Timing Service Test” on page 8</a>.</p> <p><b>User Name:</b> The user name that was identified during Oracle's Hyperion® Financial Management – System 9 database configuration.</p> <p><b>Password:</b> Database password corresponding to the user name.</p> <p><b>Query statement:</b> <code>select count(*) from hsx_datasources</code></p>

## Settings for Reporting and Analysis

- [“Settings for Interactive Reporting” on page 12](#)

- “Settings for Financial Reporting” on page 13
- “Settings for Web Analysis” on page 13

## Settings for Interactive Reporting

**Table 6**

Component	Test Type	Test Parameters
Oracle's Hyperion® Workspace (Web application)	Web Transaction	<b>Basic Single URL:</b> <code>http://&lt;host&gt;:&lt;port&gt;/workspace/index.jsp</code> ; for example, <code>http://MyServer:45000/workspace/index.jsp</code>
Core Services	Port Checker	<b>Host:</b> Name of the machine where Core Services is running. <b>Expected Open Port:</b> Ports used by GSM Service, Core Services, NameService, Event Service, Service Broker, Job Service, and Repository Service. <b>Expected closed ports:</b> None.
IRM	Port Checker	<b>Host:</b> Name of the machine where IR services are running. <b>Expected Open Port:</b> See <code>&lt;biplus_home&gt;\common\config\irmconfig.xml</code> for this value.* <b>Expected closed ports:</b> None.
Web server	Web Transaction	<b>Basic Single URL:</b> <code>http://&lt;host&gt;:&lt;port&gt;/workspace/index.jsp</code> ; for example, <code>http://MyServer:19000/workspace/index.jsp</code>
Database	JDBC SQL Timing	See “ <a href="#">Common Database Test Parameters for JDBC SQL Timing Service Test</a> ” on page 8. <b>User Name:</b> The user name that was identified during Oracle's Hyperion® Interactive Reporting – System 9 configuration. <b>Password:</b> Database password corresponding to the user name. <b>Query statement:</b> <code>select count(*) from v8_param_values</code>

\*`irmconfig.xml` contains sections that define service properties, such as `PORT_RANGE`, for various Oracle's Hyperion® Reporting and Analysis – System 9 services. All ports specified as `PORT_RANGE` for `DataAccess`, `BI`, `IRJob`, and `IRLoggingUtility` services must be specified as the value for **Expected Open Port**.

## Settings for Financial Reporting

Table 7

Component	Test Type	Test Parameters
Oracle's Hyperion® Financial Reporting - System 9 (Web application)	Web Transaction	<b>Basic Single URL:</b> <code>http://&lt;host&gt;:&lt;port&gt;/hr/index.jsp</code> ; for example, <code>http://MyServer:8200/hr/index.jsp</code>

## Settings for Web Analysis

Table 8

Component	Test Type	Test Parameters
Oracle's Hyperion® Web Analysis - System 9 (Web application)	Web Transaction	<b>Basic Single URL:</b> <code>http://&lt;host&gt;:&lt;port&gt;/WebAnalysis/WebAnalysis.jsp</code> ; for example, <code>http://MyServer:16000/WebAnalysis/WebAnalysis.jsp</code>

## Settings for Performance Scorecard

Table 9

Component	Test Type	Test Parameters
Web Reports (Web application)	Web Transaction	<b>Basic Single URL:</b> <code>http://&lt;host&gt;:&lt;port&gt;/HPSWebReports</code> ; for example, <code>http://MyServer:18080/HPSWebReports</code>

## Creating a Group for Hyperion Products

Groups provide an efficient way to logically organize, manage, and monitor the components in Hyperion Products. A group has its own home page that shows the most important information for the group and enables you to drill down for more information.

It is Hyperion recommends that you create one group to monitor Hyperion product resources.

► To create a group:

1 In Enterprise Manager Grid Control console, select **Targets > Groups**.

2 In **Groups**, click **Add**.

The Create Groups screen opens.

3 In **Name**, enter a unique group name; for example, `System9Group`.

- 4 In **Members**, click **Add**.
- 5 From **Search and Select: Targets**, select the services you created for Hyperion products.
- 6 Click **Select** to add the services to the group.
- 7 In **Create Group**, click **OK**.

## Monitoring Hyperion Products

You monitor the components in Hyperion products by monitoring the group that contains the Enterprise Manager Grid Control services for Hyperion products. You can use the home page of the group or the dashboard to monitor Hyperion products.

► To monitor Hyperion products:

- 1 Open Enterprise Manager Grid Control console home.
- 2 In **Search**, select **Group**. This field appears in **Target Search** frame.
- 3 Enter the name of the Hyperion Enterprise Manager Grid Control group as the search string. For pattern searches, use % as the wildcard in search strings.
- 4 Click **Go**.

The home page for the group opens. The home page provides a snapshot of the group's status.

- 5 Click **Launch Dashboard**.

A dashboard that displays detailed information on all the targets in the group opens. Use the dashboard to monitor Hyperion products that are defined as targets in the group. See Oracle Enterprise Manager Grid Control documentation for detailed information.



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Authors: James Chacko

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