Oracle® Business Intelligence Management Pack
Getting Started Guide
10g Release 4 (10.2.0.4)
E12639-02

July 2008
# Contents

## Preface
- Intended Audience ........................................ .......................... v
- Related Documents ................................................................. v
- Documentation Accessibility ......................................................... v

1 Oracle Business Intelligence Management Pack Getting Started Guide

1.1 Introduction to the Business Intelligence Management Pack ......................... 1-1
1.1.1 Functional Overview .......................................................... 1-1
1.1.2 Monitored Targets ................................................................ 1-2
1.1.3 Additional Sources of Information ........................................... 1-3
1.1.4 System Requirements ............................................................ 1-4
1.1.5 Installing Oracle Enterprise Manager Grid Control 10g Release 4 .................. 1-4
1.1.6 Prerequisites for Discovering Oracle Business Intelligence Targets in Enterprise Manager (in Windows) ................................. 1-5
1.1.7 Prerequisites for Discovering Oracle Business Intelligence Targets in Enterprise Manager (in Linux) ........................................ 1-15
1.2 Discovering and Configuring Oracle Business Intelligence Targets .................. 1-18
1.2.1 Discovering Oracle Business Intelligence Suite Enterprise Edition (EE) Targets ................................................................. 1-18
1.2.2 Refreshing an Existing Oracle BI-EE Suite ..................................... 1-24
1.2.3 Updating Monitoring Configuration for Individual BI-EE Targets ...................... 1-25
1.2.4 Adding Oracle BI DAC Server Target ........................................ 1-26
1.2.5 Adding Two Oracle BI Presentation Servers in a Clustered Environment ............ 1-28
1.2.6 Adding Targets to the System Topology ......................................... 1-30
1.2.7 Removing Servers or Components from an Existing BI-EE Suite ............... 1-30
1.2.8 Adding a Group for Oracle Business Intelligence Targets ....................... 1-31
1.3 Configuration Management ....................................................... 1-32
1.3.1 Collected Configurations ........................................................ 1-32
1.3.2 Viewing Configurations .......................................................... 1-47
1.3.3 Comparing Configurations ....................................................... 1-47
1.3.4 Configuration History ............................................................. 1-48
1.4 Application Performance Management ......................................................... 1-49
1.4.1 Monitoring Basics ..................................................................... 1-49
1.4.1.1 Out-of-Box Monitoring ......................................................... 1-50
1.4.1.2 Metric Baselines ................................................................. 1-51
1.4.1.3 Alerts .................................................................................. 1-52
1.4.1.4 Notifications ....................................................................... 1-53
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4.1.5 Corrective Actions</td>
<td>1-53</td>
</tr>
<tr>
<td>1.4.1.6 Blackouts</td>
<td>1-54</td>
</tr>
<tr>
<td>1.4.2 Monitoring Templates</td>
<td>1-55</td>
</tr>
<tr>
<td>1.4.3 User-Defined Metrics</td>
<td>1-55</td>
</tr>
<tr>
<td>1.4.4 Real-Time Performance Charts</td>
<td>1-56</td>
</tr>
<tr>
<td>1.4.4.1 Oracle BI Server</td>
<td>1-56</td>
</tr>
<tr>
<td>1.4.4.2 Oracle BI Presentation Server</td>
<td>1-57</td>
</tr>
<tr>
<td>1.4.4.3 Oracle BI Scheduler</td>
<td>1-57</td>
</tr>
<tr>
<td>1.4.4.4 Oracle BI DAC Server</td>
<td>1-58</td>
</tr>
<tr>
<td>1.4.4.5 Oracle BI Cluster Controller</td>
<td>1-58</td>
</tr>
<tr>
<td>1.5 Service Level Management</td>
<td>1-58</td>
</tr>
<tr>
<td>1.5.1 Service Tests and Beacons</td>
<td>1-59</td>
</tr>
<tr>
<td>1.5.1.1 Request Simulation versus Browser Simulation</td>
<td>1-61</td>
</tr>
<tr>
<td>1.5.2 Performance and Usage</td>
<td>1-61</td>
</tr>
<tr>
<td>1.5.3 Availability</td>
<td>1-62</td>
</tr>
<tr>
<td>1.5.4 Service-Level Rules</td>
<td>1-63</td>
</tr>
<tr>
<td>1.5.5 Topology View</td>
<td>1-63</td>
</tr>
<tr>
<td>1.5.6 Service Performance</td>
<td>1-63</td>
</tr>
<tr>
<td>1.5.7 Reports</td>
<td>1-64</td>
</tr>
<tr>
<td>1.6 Oracle Business Intelligence Performance Metrics</td>
<td>1-64</td>
</tr>
<tr>
<td>1.6.1 Oracle BI Analytics Server</td>
<td>1-64</td>
</tr>
<tr>
<td>1.6.2 Oracle BI Presentation Server</td>
<td>1-67</td>
</tr>
<tr>
<td>1.6.3 Oracle BI Scheduler</td>
<td>1-68</td>
</tr>
<tr>
<td>1.6.4 Oracle BI Cluster Controller</td>
<td>1-69</td>
</tr>
<tr>
<td>1.6.5 Oracle BI DAC Server</td>
<td>1-69</td>
</tr>
<tr>
<td>1.7 Troubleshooting the Business Intelligence Management Pack</td>
<td>1-70</td>
</tr>
<tr>
<td>1.7.1 Failure to Discover an Oracle BI Suite EE</td>
<td>1-70</td>
</tr>
<tr>
<td>1.7.1.1 Problem</td>
<td>1-70</td>
</tr>
<tr>
<td>1.7.1.2 Possible Cause</td>
<td>1-70</td>
</tr>
<tr>
<td>1.7.1.3 Solution</td>
<td>1-71</td>
</tr>
<tr>
<td>1.7.2 Configuration Comparison for the Oracle BI Presentation Server Fails</td>
<td>1-71</td>
</tr>
<tr>
<td>1.7.3 Certain Metrics Are Not Collected</td>
<td>1-71</td>
</tr>
<tr>
<td>1.7.4 Difference in Component Status of EM and Windows Services Panel</td>
<td>1-72</td>
</tr>
<tr>
<td>1.7.5 Internet Explorer Crashes During Multiple Recording of Same Application Transactions</td>
<td>1-72</td>
</tr>
<tr>
<td>1.7.6 Browser Simulation on Windows XP Beacon is Disabled</td>
<td>1-72</td>
</tr>
</tbody>
</table>
Preface

This guide provides a brief introduction to Oracle Business Intelligence Management Pack.

This preface contains the following topics:

■ Intended Audience
■ Related Documents
■ Documentation Accessibility

Intended Audience

This guide is meant for system administrators who use Oracle Business Intelligence Management Pack.

Related Documents

For more information, refer to Enterprise Manager Grid Control Installation and Basic Configuration Guide and Enterprise Manager Advanced Configuration Guide available at:
http://www.oracle.com/technology/documentation/oem.html

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1

Oracle Business Intelligence Management Pack Getting Started Guide

This chapter provides a brief introduction to Business Intelligence Management Pack. It guides you through the process of discovering and configuring Business Intelligence Suite Enterprise Edition targets and discusses key features in the Business Intelligence Management Pack. It covers the following sections:

- Introduction to the Business Intelligence Management Pack
- Discovering and Configuring Oracle Business Intelligence Targets
- Configuration Management
- Application Performance Management
- Service Level Management
- Oracle Business Intelligence Performance Metrics
- Troubleshooting the Business Intelligence Management Pack

1.1 Introduction to the Business Intelligence Management Pack

This section covers the following topics:

- Functional Overview
- Monitored Targets
- Additional Sources of Information
- System Requirements
- Installing Oracle Enterprise Manager Grid Control 10g Release 4
- Prerequisites for Discovering Oracle Business Intelligence Targets in Enterprise Manager (in Windows)
- Prerequisites for Discovering Oracle Business Intelligence Targets in Enterprise Manager (in Linux)

1.1.1 Functional Overview

The Oracle Business Intelligence Management Pack extends the Enterprise Manager Grid Control management capabilities to Oracle Business Intelligence Suite Enterprise Edition (OBIEE) and Oracle Business Intelligence Data-Warehouse Administration Console (DAC) Servers. This pack leverages on Enterprise Manager Grid Control solutions including configuration management, application performance...
With the BI pack, you can:

- Manage multiple Business Intelligence environments from a single console.
- Monitor the health and capacity utilization of your Business Intelligence environment as well as the underlying hosts running the Business Intelligence application.
- Measure performance and usage metrics for critical Business Intelligence components, get proactive alerts, and diagnose performance problems.
- View detailed analysis of Interactive Dashboards such as Dashboard usage, failed dashboards, top dashboards by resource usage and top users by resource usage over different time periods.
- Set up alerts (based on key performance metrics) and view performance charts for the Data-Warehouse Administration Console (DAC) Server. View summary of completed ETL runs with information about the Duration, Total Steps, Completed Steps, Stopped/Failed Steps, and Running Steps for all completed runs. View logs of all completed ETL routines.
- Track configuration changes through audit trails, take snapshots to store configurations, and compare server configurations.
- Define services from Business Intelligence applications and track service levels.
- Create customized reports to report and share vital information for BI applications.

When combined with other Enterprise Manager packs and plug-ins for managing Oracle and non-Oracle database, middleware, network devices and hosts, you can achieve complete end-to-end management of your entire Oracle Business Intelligence environment.

### 1.1.2 Monitored Targets

The monitored targets in the Business Intelligence Management Pack are summarized in Table 1–1. These targets have been added to Enterprise Manager to manage the Oracle Business Intelligence application.

<table>
<thead>
<tr>
<th>Enterprise Manager Target Type</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle BI Analytics Server</td>
<td>Representation of Oracle BI Analytics Server providing access to metrics, alerts, charts, dashboard usage reports and configuration management.</td>
</tr>
<tr>
<td>Oracle BI Presentation Server</td>
<td>Representation of Oracle BI Presentation Server providing access to metrics, alerts, charts, dashboard usage reports and configuration management.</td>
</tr>
<tr>
<td>Oracle BI Scheduler</td>
<td>Representation of Oracle BI Scheduler providing access to metrics, alerts, customized reports and configuration management.</td>
</tr>
<tr>
<td>Oracle BI Cluster Controller</td>
<td>Representation of Oracle BI Cluster Controller providing access to metrics, alerts, customized reports and configuration management.</td>
</tr>
<tr>
<td>Oracle BI DAC Server</td>
<td>Representation of Oracle BI DAC Server providing access to metrics, alerts, historical ETL performance charts, ETL performance reports and configuration management.</td>
</tr>
</tbody>
</table>
1.1.3 Additional Sources of Information

Refer to the documentation listed in Table 2 for additional information about the Business Intelligence Management Pack. Because the pack leverages many of Enterprise Manager’s underlying capabilities, the base documentation is applicable in many cases.

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle BI Suite EE</td>
<td>Representation of all BI-EE components providing access to alerts/policy violations and the ability to start/stop/restart any of the BI-EE components.</td>
</tr>
<tr>
<td>Generic Service</td>
<td>Generic service modeled with Oracle BI Analytics Server, Oracle BI Scheduler, Oracle BI Presentation Server, Oracle BI Cluster Controller, and the underlying hosts as the key components providing a service oriented view of the monitored BI-EE targets:</td>
</tr>
<tr>
<td></td>
<td>• Define availability based on system health of monitored BI-EE targets</td>
</tr>
<tr>
<td></td>
<td>• Define expected service level based on performance metrics</td>
</tr>
<tr>
<td></td>
<td>• View charts and set up notification alerts based on usage and performance metrics for any of the monitored BI-EE targets</td>
</tr>
<tr>
<td></td>
<td>• View a topology chart showing the service dependencies based on the key components defined</td>
</tr>
<tr>
<td>System</td>
<td>Representation of a system oriented view of monitored BI-EE targets providing access to alerts, charts, blackouts, jobs activity, and topology view.</td>
</tr>
<tr>
<td>Host</td>
<td>Representation of hosts running the Business Intelligence application providing access to metrics, alerts, performance charts, remote file editor, host commands and customized reports.</td>
</tr>
</tbody>
</table>

### Table 1–2 Additional Documentation for the Business Intelligence Management Pack

<table>
<thead>
<tr>
<th>Book</th>
<th>Chapter</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Manager Grid Control Quick Start Guide (<a href="http://download.oracle.com/docs/cd/B16240_01/doc/user.102/b281678/toc.htm">http://download.oracle.com/docs/cd/B16240_01/doc/user.102/b281678/toc.htm</a>)</td>
<td>All</td>
<td>Introduction to Enterprise Manager Grid Control - It is highly recommended that you go over this piece of documentation first if you are new to using Oracle Enterprise Manager</td>
</tr>
<tr>
<td>Enterprise Manager Concepts Guide (<a href="http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b11949/toc.htm">http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b11949/toc.htm</a>)</td>
<td>All</td>
<td>Overall information on the capabilities of Oracle Enterprise Manager Grid Control</td>
</tr>
</tbody>
</table>

- **System Monitoring**: Setting up Thresholds and Alerts
- **Service Management**: Defining Service Level Objective, Running Service Level Reports
- **Managing Deployments Chapter**: Viewing Configurations, Comparing Configurations, Taking Configuration Snapshots, Using Configuration Policy
- **Host and Third-Party Target Management**: Monitoring the Operating System and the Host
- **Information Publisher**: Creating Custom Reports

Oracle Business Intelligence Management Pack Getting Started Guide 1-3
1.1.4 System Requirements

The Business Intelligence Management Pack is supported on the same platforms that support Oracle Enterprise Manager Grid Control 10g Release 4 (10.2.0.4).

Currently, the Business Intelligence Management Pack is supported with Oracle Business Intelligence Suite Enterprise Edition (EE) 10.1.3.2, 10.1.3.2.1, 10.1.3.3 and all later versions. To learn about Oracle BI-EE system requirements, visit the System Requirements and Supported Platforms page (http://download.oracle.com/docs/cd/E10417_01/doc/bi.1013/e10417.pdf).

The Business Intelligence Management Pack also supports the Oracle BI DAC Server, which is provided in the Oracle Business Intelligence Applications installation. Currently, the BI Pack supports Oracle Business Intelligence Applications 7.9, 7.9.1, 7.9.2, 7.9.3 and 7.9.4. To learn about Oracle BI Applications system requirements, visit the System Requirements and Supported Platforms page (http://download.oracle.com/docs/cd/E10920_01/doc/em.79/e10924 toc.htm).

1.1.5 Installing Oracle Enterprise Manager Grid Control 10g Release 4

Before you begin configuring Grid Control 10g Release 4 (10.2.0.4) to manage your Business Intelligence Management Pack components, you must install and configure Grid Control 10g Release 4 (10.2.0.4) on at least one host computer on your network.

Oracle recommends that you install the Grid Control components on their own host or hosts. For example, if the Business Intelligence Management Pack middle tier is installed on host1.us.oracle.com, then install and configure the Oracle Management Service and Oracle Management Repository on host2.us.oracle.com.

Install the Grid Control 10.2 Oracle Management Agent on every host that includes the components you want to manage with Grid Control.
1.1.6 Prerequisites for Discovering Oracle Business Intelligence Targets in Enterprise Manager (in Windows)

Before you start monitoring Oracle Business Intelligence targets in Enterprise Manager, you must perform the following tasks:

- Install the Enterprise Manager Grid Control 10g Release 4 (10.2.0.4)

The information required to perform these steps is available in Chapter 3 of the Oracle Enterprise Manager Grid Control Installation and Basic Configuration Guide (http://download.oracle.com/docs/cd/B16240_01/doc/install.102/e10953/toc.htm).

- Install Grid Control 10g Release 4 (10.2.0.4) Agent on each of the hosts.

Install an Agent in each of the hosts where Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, Oracle BI Cluster Controller, and Oracle BI DAC Server run on.

The information required to perform these steps is available in Chapter 3 of the Oracle Enterprise Manager Grid Control Installation and Basic Configuration Guide.

If you would like to monitor additional targets, such as MS IIS and databases supporting Oracle Business Intelligence, and you have the proper license for monitoring these targets, then install the Agent on these hosts as well.

- After Enterprise Manager Grid Control OMS and Agents are installed, complete the following steps before initiating the discovery process:

  1. Install an Oracle database or use an existing Oracle database to host the Scheduler tables and S_NQ_ACCT table for usage statistics.

Note: Installing Enterprise Manager Grid Control 10g Release 4 requires any previous releases of Grid Control - that is any 10.2.0.x.0 installation, and upgrade to 10.2.0.4.0 release. If you do not have a previous release, but want a 10.2.0.4.0 Grid Control environment, then first install 10.2.0.1.0 Grid Control (10.2.0.2.0 for Windows), and then upgrade it to 10.2.0.4.0 - please see the README file for Enterprise Manager 10gR4 (http://www.oracle.com/technology/software/products/oem/htdocs/gridR4_10204_readme.html). The installation of the Grid Control 10g Release 4 (10.2.0.4) agent does not require a previous release of Grid Control 10g agent. The installation file for OEM agent is found on Oracle OTN Web site: (http://www.oracle.com/technology/software/products/oem/htdocs/agents.html)
2. Create an account called S_NQ_SCHED (the recommended account name) on the Oracle database and run the following scripts to create the necessary tables:

```
SQL> conn system/password@oraclebi
Connected.
SQL> create user s_nq_sched
2  identified by password
3  default tablespace users
4  temporary tablespace temp
5  quota unlimited on users
6 /
SQL> grant connect
2 , create table
3 , create view
4 , create procedure
5 to s_nq_sched
6 /
SQL> conn s_nq_sched/password@oraclebi
Connected.
SQL> @C:\OracleBI\server\Schema\SAJOBS.Oracle.sql
Table created.
...
Commit complete.
SQL> @C:\OracleBI\server\Schema\SAACCT.Oracle.sql
Table created.
Index created.
...
Commit complete.
```

3. Update the TNSNAMES.ORA file (located in <Oracle Database Home>\NETWORK\ADMIN) to include an entry that points to the S_NQ_SCHED user account.

```sql
S_NQ_SCHED =
(DESCRIPTION =
```
(ADDRESS_LIST =
  (ADDRESS = (PROTOCOL = TCP)(HOST = <hostname>)(PORT = 1521))
)

(CONNECT_DATA =
  (SID = oraclebi)
  (SERVER = DEDICATED)
)

Alternatively, you may use the "Net Manager" tool - provided in the Configuration and Migration Tools for the Oracle database - to create a new service for the S_NQ_SCHED user account.

4. Open Microsoft ODBC Data Source Administrator to set up an ODBC System Data Source to point through the S_NQ_SCHED service created in the TNSNAMES.ORA file.

Figure 1–1 ODBC Data Source Administrator

5. Select the System DSN sub-tab and click Add to create a new Data Source. Select Microsoft ODBC for Oracle or Oracle ODBC Driver. See screenshots below for Oracle ODBC Driver Configuration.
6. Open Oracle BI Administration Tool and import the S_NQ_SCHED schema from the Oracle database into the physical layer of the Oracle BI repository being used. To import a physical schema from an Oracle database, follow these steps:
   - In the Administration Tool, select File > Import, and then select from Database.
   - In the Select Data Source dialog box, select an appropriate connection type from the Connection Type drop-down list - for example, OCI 10g/11g. Write down the TNS name associated with the S_NQ_SCHED service (as defined in the TNSNAMES.ORA file). Type a valid user name and password for the data source and click OK to continue.
In the Import dialog box, select the S_NQ_SCHED schema. After you select all the objects you want to import, click Import or drag and drop them into the Physical Layer.
7. Once the S_NQ_SCHED schema has been appropriately imported into the Physical Layer, click Connection Pool and verify that all the connection settings are correct.

Note: For more information about importing a physical schema from relational data sources, please refer to Chapter 4 of the Oracle Business Intelligence Server Administration Guide (http://download.oracle.com/docs/cd/E10415_01/doc/bi.1013/b31770.pdf)
Figure 1–5  Connection Pool

Note: For more information on setting up Connection Pools, refer to Chapter 4 of the Oracle Business Intelligence Server Administration Guide ([http://download.oracle.com/docs/cd/E10415_01/doc/bi.1013/b31770.pdf](http://download.oracle.com/docs/cd/E10415_01/doc/bi.1013/b31770.pdf)).
8. Update the OracleBI\server\Config\NQSConfig.INI file to enable usage tracking for the BI Server:
   - Set ENABLE to "YES",
   - Set DIRECT_INSERT to "YES"
   - Update the PHYSICAL_TABLE_NAME and CONNECTION_POOL parameters to provide information about the Oracle database and the table to be used for usage tracking. Make sure that the Database and Connection Pool specified are appropriately configured in the Physical Layer in the Oracle BI Administration Tool.

9. Update the Scheduler Database Configuration Settings to point to the Oracle database and provide the login credentials. Run the schconfig.exe file to update the configuration settings:
   `cd C:\OracleBI\server\bin\`
   `run schconfig`
10. Update the database configuration of the BI Job Manager. From Windows, select Programs, Oracle Business Intelligence, and then Job Manager.
11. Re-start all the Oracle BI-EE services and make sure they are running properly.

12. Oracle BI Analytics Server and Oracle BI Presentation Server expose performance counters via the JMX agent. Several settings have to be changed in the JMX agent before the discovery process.

Open the OracleBI\systemsmanagement\runagent.cmd file in Notepad.

Replace `-Dcom.sun.management.jmxremote` with the following:

- `Dcom.sun.management.jmxremote`
- `Dcom.sun.management.jmxremote.port=9980`
- `Dcom.sun.management.jmxremote.authenticate=false`
- `Dcom.sun.management.jmxremote.ssl=false`

13. Start the JMX agent - OracleBI\systemsmanagement\runagent.cmd. Make sure that all the Oracle BI-EE services are running - OC4J, Oracle BI Java Host, Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, and Oracle BI Cluster Controller (if applicable).
cd C:\OracleBI\systemsmanagement\runagent.cmd

1.1.7 Prerequisites for Discovering Oracle Business Intelligence Targets in Enterprise Manager (in Linux)

Before you start monitoring Oracle Business Intelligence targets in Enterprise Manager, you must perform the following tasks:

- Install the Enterprise Manager Grid Control 10g Release 4 (10.2.0.4)
  The information required to perform these steps is available in Chapter 3 of the Oracle Enterprise Manager Grid Control Installation and Basic Configuration Guide (http://download.oracle.com/docs/cd/B16240_01/doc/install.102/e10953/toc.htm).

- Install Grid Control 10g Release 4 (10.2.0.4) Agent on each of the hosts.
  Install an Agent in each of the hosts where Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, Oracle BI Cluster Controller, and Oracle BI DAC Server run on.

- After Enterprise Manager Grid Control OMS and Agents are installed, complete the following steps before initiating the discovery process:
  1. Install an Oracle database or use an existing Oracle database to host the Scheduler tables and S_NQ_ACCT table for usage statistics.
     - Note: The BI Management Pack currently supports Oracle databases only for the Scheduler and Usage Statistics tables.

  2. Create an account called S_NQ_SCHED (the recommended account name) on the Oracle database and run the following scripts to create the necessary tables:
     SQL> conn system/password@oraclebi
     Connected.
     SQL> create user s_nq_sched
     2 identified by password
     3 default tablespace users
     4 temporary tablespace temp
     5 quota unlimited on users
     6 /
     SQL> grant connect
     2 , create table
     3 , create view

Oracle Business Intelligence Management Pack Getting Started Guide 1-15
4. create procedure
5 to s_nq_sched
6 /
SQL> conn s_nq_sched/password@oraclebi
Connected.
SQL>
@/ora/biee/10.1.3.2/OracleBI/server/Schema/SAJOBS.Oracle.sql
Table created.
...
Commit complete.
SQL>
@/ora/biee/10.1.3.2/OracleBI/server/Schema/SAACCT.Oracle.sql
Table created.
Index created.
...
Commit complete.

3. On the Windows server hosting the Oracle Business Intelligence client tools (for example, Oracle BI Administration Tool), update the TNSNAMES.ORA file (located in <Oracle Database Home>\NETWORK\ADMIN) to include an entry that points to the S_NQ_SCHED user account.

S_NQ_SCHED =
  (DESCRIPTION =
   (ADDRESS_LIST =
    (ADDRESS = (PROTOCOL = TCP)(HOST = <hostname>)(PORT = 1521))
   )
  )
  (CONNECT_DATA =
   (SID = oraclebi)
   (SERVER = DEDICATED)
  )
)
Alternatively, you may use the "Net Manager" tool - provided in the Configuration and Migration Tools for the Oracle database - to create a new service for the S_NQ_SCHED user account.

4. On the Windows server hosting the Oracle Business Intelligence client tools (e.g. Oracle BI Administration Tool), open Microsoft ODBC Data Source Administrator to set up an ODBC System Data Source to point through the S_NQ_SCHED service created in the TNSNAMES.ORA file. Select the "System DSN" sub-tab and click on "Add" to create a new Data Source. Select either "Microsoft ODBC for Oracle" or "Oracle ODBC Driver". Enter the requested credentials and test the database connection.

5. On the Windows server hosting the Oracle Business Intelligence client tools, open Oracle BI Administration Tool and import the S_NQ_SCHED schema from the
Oracle database into the physical layer of the Oracle BI repository being used. To import a physical schema from an Oracle database, follow these steps:

- In the Administration Tool, select **File**, **Import**, and then select **from Database**
- In the Select Data Source dialog box, select an appropriate connection type from the Connection Type drop-down list, for example, OCI 10g/11g. Enter the TNS name associated with the S_NQ_SCHED service (as defined in the TNSNAMES.ORA file). Type a valid user name and password for the data source and click **OK** to continue.
- In the Import dialog box, select the S_NQ_SCHED schema. After you select the objects to import, click **Import** or drag and drop them into the Physical Layer.

**Note:** For more information about importing a physical schema from relational data sources, please refer to Chapter 4 of the Oracle Business Intelligence Server Administration Guide

6. After importing the S_NQ_SCHED schema into the Physical Layer, click on **Connection Pool** and verify that all the connection settings are correct. Ensure that the Connection Pool settings are also appropriate for the Linux server hosting the Oracle BI Analytics Server - for instance, verify that the Call Interface selected is enabled on the Linux server as well (for example, JDBC OCI driver).

**Note:** For more information about setting up Connection Pools, please refer to Chapter 4 of the Oracle Business Intelligence Server Administration Guide.

7. Save the changes made on the BI Administration Tool by selecting **File** and then **Save**.

8. On the Linux server hosting the Oracle BI Analytics Server, update the OracleBI/server/Config/NQSConfig.INI file to enable usage tracking for the BI Server.
   - Set **ENABLE** to "YES",
   - Set **DIRECT_INSERT** to "YES"
   - Update the **PHYSICAL_TABLE_NAME** and **CONNECTION_POOL** parameters to provide information about the Oracle database and the table to be used for usage tracking. Make sure that the Database and Connection Pool specified are appropriately configured in the Physical Layer in the Oracle BI Administration Tool.

9. Update the Scheduler Database Configuration Settings (OracleBI/server/Bin/schconfig) to point to the Oracle database and provide the login credentials.

10. Re-start all the Oracle BI-EE services (OracleBI/setup) and make sure they are running properly.

11. Oracle BI Analytics Server and Oracle BI Presentation Server expose performance counters via the JMX agent. Several settings have to be changed in the JMX agent before the discovery process.
Open the OracleBI/systemsmanagement/runagent.sh file in a text editor (for example, emacs). Replace 
-Dcom.sun.management.jmxremote with the following:
-Dcom.sun.management.jmxremote
-Dcom.sun.management.jmxremote.port=9980
-Dcom.sun.management.jmxremote.authenticate=false
-Dcom.sun.management.jmxremote.ssl=false

12. Start the JMX agent - OracleBI/systemsmanagement/runagent.sh. Make sure that all the Oracle BI-EE services are running - OC4J, Oracle BI Java Host, Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, and Oracle BI Cluster Controller (if applicable).

1.2 Discovering and Configuring Oracle Business Intelligence Targets

This section covers the following topics:
- Discovering Oracle Business Intelligence Suite Enterprise Edition (EE) Targets
- Refreshing an Existing Oracle BI-EE Suite
- Updating Monitoring Configuration for Individual BI-EE Targets
- Adding Oracle BI DAC Server Target
- Adding Two Oracle BI Presentation Servers in a Clustered Environment
- Adding Targets to the System Topology
- Removing Servers or Components from an Existing BI-EE Suite
- Adding a Group for Oracle Business Intelligence Targets

1.2.1 Discovering Oracle Business Intelligence Suite Enterprise Edition (EE) Targets

Enterprise Manager has a simple discovery wizard for Oracle Business Intelligence Suite Enterprise Edition targets. The Discovery wizard collects details about BI-EE targets including information about the hostname, Oracle BI Home, host login credentials, database credentials, and JMX agent designated port and login credentials.

After the Discovery wizard is complete, System and Service topologies are automatically generated by introspecting a BI-EE environment, and entered into Enterprise Manager’s integrated configuration management database (CMDB).

To discover Oracle Business Intelligence Suite Enterprise Edition targets, perform the following steps:

1. Log on to Enterprise Manager. Navigate to the Targets tab and select All Targets sub-tab.
2. To discover a new BI-EE Suite environment, select Oracle BI Suite EE from the Add drop-down list and click Go.
3. Enter the information requested for Oracle BI Presentation Server. Click Next after entering the necessary information.
   - **Suite Name**: The name that you would like to give to the monitored Oracle BI-EE environment
   - **BI Home**: The directory where Oracle BI is installed - for example, `C:\OracleBI`
   - **Agent Username**: Host Administrator Username
   - **Agent Password**: Host Administrator Password
4. Enter the information requested for the Oracle BI Cluster Controller (if applicable). Click Next after entering the necessary information.
   - BI Home: The directory where Oracle BI is installed – for example, C:\OracleBI
   - Agent Username: Host Administrator Username
   - Agent Password: Host Administrator Password

5. Enter the information requested for the Oracle BI Analytics Server. Click Next after entering the necessary information.
   - BI Home: The directory where Oracle BI is installed – for example, C:\OracleBI
   - Agent Username: Host Administrator Username
   - Agent Password: Host Administrator Password
6. Enter the information requested for the Oracle BI Scheduler. Click Next after entering the necessary information.

- **BI Home**: The directory where Oracle BI is installed - for example, C:\OracleBI
- **Agent Username**: Host Administrator Username
- **Agent Password**: Host Administrator Password
7. Enter the additional information requested (JMX and DB Credentials that are required to collect the metrics for the targets). Click Next after entering the necessary information.
   - JMX Port: 9980 - Check the C:\OracleBI\systemsmanagement\runagent.cmd file to verify that the port has been appropriately changed.
   - JMX Username: oc4jadmin (Default)
   - JMX Password: welcome1 (Default)
   - Database Credentials:
     - Connect String: jdbc:oracle:oci:@<hostname>:<port>:<Database SID>
     - Class String: oracle.jdbc.driver.OracleDriver
     - Username: The username created to access the BI Scheduler tables and S_NQ_ACCT table for usage statistics in the Oracle database - for example, S_NQ_SCHED
     - Password: The password for the S_NQ_SCHED account
8. This is the final review screen before finalizing the discovery. Review all the information entered and make sure that it is accurate. Click Finish to complete the discovery.
1.2.2 Refreshing an Existing Oracle BI-EE Suite

After Oracle BI Suite EE targets are discovered in Enterprise Manager, you may refresh the discovery of Oracle BI Suite EE at anytime. Refreshing an existing Oracle BI Suite EE can be used to enter new details about BI-EE targets including information about the hostname, Oracle BI Home, host login credentials, database credentials, and JMX agent designated port and login credentials.

Perform the following steps to refresh an existing Oracle BI Suite EE:

1. From the Enterprise Manager Console, click the Targets tab.
2. Click the All Targets tab.
3. Click on the target of type Oracle BI Suite EE.
4. Click Refresh Suite.
5. Follow the instructions in the section Discovering Oracle Business Intelligence Suite Enterprise Edition (EE) Targets.
1.2.3 Updating Monitoring Configuration for Individual BI-EE Targets

In addition to refreshing the discovery of an existing Oracle BI Suite EE, you may also update the monitoring configuration details for individual BI-EE targets. Updating monitoring configuration details for individual BI-EE targets can be used to enter new details about BI-EE targets including information about the hostname, Oracle BI Home, host login credentials, database credentials, and JMX agent designated port and login credentials. For instance, if the database credentials for accessing the Oracle BI Scheduler tables changed, then you can update the monitoring configuration details for Oracle BI Scheduler using the Monitoring Configuration page.

Perform the following steps to update monitoring configuration for individual BI-EE targets:

1. From the Enterprise Manager Console, click the Targets tab.
2. Click the All Targets tab.
3. Click on the Oracle BI-EE target that you would like to update. For instance, if you would like to update Oracle BI Scheduler, click on the target of type Oracle BI Scheduler.
4. Click on the Monitoring Configuration link in the Related Links section.
5. Update the information and click OK to save the new changes.
1.2.4 Adding Oracle BI DAC Server Target

In addition to Oracle BI-EE targets, the Business Intelligence Management Pack supports Oracle BI DAC Server.

Perform the following steps to add Oracle BI DAC Server target to Enterprise Manager:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on the Agent that is running on the underlying host for Oracle Business Intelligence Applications. To search for Agent targets, you may select Agent from the Search dropdown list and click Go.
4. Select Oracle BI DAC Server from the Add dropdown list and click Go.
5. Enter the information requested for the Oracle BI DAC Server. Click OK after entering the necessary information.
   - BI Home: The directory where Oracle BI is installed - for example, C:\OracleBI
   - Agent Username: Host Administrator Username
   - Agent Password: Host Administrator Password
   - Connect String: jdbc:oracle:oci:@<hostname>:<port>:<Database SID>
   - Class String: oracle.jdbc.driver.OracleDriver
   - Repository Username = the username used to access the DAC database - for example, DAC
   - Password = the password used to access the DAC database
1.2.5 Adding Two Oracle BI Presentation Servers in a Clustered Environment

The Oracle BI Suite EE discovery wizard allows you to discover one Oracle BI Presentation Server. If you are running a clustered environment with two Oracle BI Presentation Servers, you may use the Oracle BI Suite EE discovery wizard to discover the first Presentation Server, and then add the second Presentation Server manually.

Perform the following steps to add a second Oracle BI Presentation Server target to Enterprise Manager:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on the Agent that is running on the underlying host for Oracle Business Intelligence Applications. To search for Agent targets, you may select Agent from the Search dropdown list and click Go.
4. Select Oracle BI Presentation Server from the Add dropdown list and click Go.
5. Enter the information requested for the Oracle BI Presentation Server. Click OK after entering the necessary information.

- **BI Home**: The directory where Oracle BI is installed - for example, C:\OracleBI
- **Host**: The hostname where Oracle BI Presentation Server is running
- **Admin Port Number**: JMX Port - 9980 - Check the C:\OracleBI\systemsmanagement\runagent.cmd file to verify that the port has been appropriately changed.
- **JMX Username**: oc4jadmin (Default)
- **JMX Password**: welcome1 (Default)
- **Connection Protocol**: rmi
- **Service Name**: jmxrmi
- **Config File**: The configuration file for the Presentation Server (for example, C:\OracleBIData\web\config\instanceconfig.xml)
- **Attribute Definition File**: The attribute definition file for the Presentation Server (for example, C:\OracleBI\systemsmanagement\resources\attribute-definitions.xml)
- **Oracle BI Data Directory**: The Oracle BI Data directory (for example, C:\OracleBIData)
After discovering the Oracle BI Presentation Server, you can add the newly discovered target to the “System” topology. Follow the instructions in the Adding Targets to the System topology section.

### 1.2.6 Adding Targets to the System Topology

A target of type System is automatically created once the discovery wizard for Oracle BI Suite EE is completed. The Oracle BI target of type System is representation of a system oriented view of monitored Oracle BI targets providing access to alerts, charts, blackouts, jobs activity, and topology view. You may edit the list components that define the System target, which in turn, defines the key components critical for running the Oracle BI target of type Service. For more information about monitoring the BI environment from a service-oriented perspective, please view the Service Level Management section.

Perform the following steps to add Oracle BI Presentation Server target to the “System” topology:

1. Click the **Targets** tab on the Enterprise Manager Console.
2. Click the **All Targets** tab.
3. Click the Oracle BI target of type **System** that represents the critical components in your Oracle environment. To search for System targets, you may select **System** from the **Search** dropdown list and click **Go**.
4. Click the **Edit System** link from the **Related Links** section.
5. Click the **Add** button and select the target to add to the System topology.

### 1.2.7 Removing Servers or Components from an Existing BI-EE Suite

After discovering Oracle Business Intelligence targets, you may manually remove individual targets. This will, however, delete the respective target information from the Enterprise Manager repository.

After that entry is deleted, Enterprise Manager does not monitor that target anymore. If you perform a manual refresh for the Oracle BI Suite EE, Enterprise Manager includes that target in the new system topology.
Perform the following steps for manually removing components from an existing enterprise:

- Go to the All Targets tab, search for the server or component you want to delete, select the radio button next to the server or component name, and click Remove.

### 1.2.8 Adding a Group for Oracle Business Intelligence Targets

To obtain better accessibility to the Oracle Business Intelligence targets, you may wish to create a group to include all the monitored Business Intelligence targets as well as other licensed targets that support the Business Intelligence application (for example, databases, application servers, and so on).

Perform the following steps to create a Group target:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. From the Add dropdown list, select Group and click Go.
4. In the Members section, select the Business Intelligence targets that you want to include by clicking Add.

Once the Group target has been appropriately added, you may also add a link to that group in the Target Subtabs section.

Perform the following steps to create a subtab for the newly created Business Intelligence group:

1. Click on the Preferences tab on the Enterprise Manager Console.
2. Click the Target Subtabs tab.
3. Move the newly created group from Available Target Subtabs to Selected Target Subtabs.
4. Click Apply when you are done.

By combining targets in a group, Enterprise Manager offers a wealth of management features that enable you to efficiently manage these targets as one group. Using the Group pages, you can:

- View a summary status of the targets within the group.
- Monitor outstanding alerts and policy violations for the group collectively, rather than individually.
- Monitor the overall performance of the group through performance charts.
- Perform administrative tasks, such as scheduling jobs for the entire group, or blacking out the group for maintenance periods.
- You can also customize the console to provide direct access to group management pages.

For more information about Group Management, refer to the Enterprise Manager Concepts Guide:

1.3 Configuration Management

This chapter explains how Enterprise Manager Grid Control simplifies the monitoring and management of Oracle BI targets in your enterprise through Configuration Management.

For more information about Configuration Management, please refer to the Enterprise Configuration Management section of the Enterprise Manager Concepts Guide:
http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b31949/toc.htm

Configuration Management allows you to view, save, track, compare, and search the configuration information stored in the Management Repository for the monitored Oracle BI targets. The ability to compare configuration settings is useful in diagnostic situations when administrators need to find out what parameter has changed, or how two servers or server components differ from each other. Configuration Management is also useful in achieving regulatory compliance cost effectively, as it could be extremely tedious and error prone to try to keep track of changes manually.

**Note:** The Business Intelligence Management Pack supports configuration management for all monitored Oracle BI targets excluding the host. The Configuration Management Pack for Non-Oracle Systems is needed to take advantage of configuration management features for the underlying hosts running the Oracle BI application.

This section covers the following topics:

- Collected Configurations
- Viewing Configurations
- Comparing Configurations
- Configuration History

1.3.1 Collected Configurations

The Business Intelligence Management Pack in Enterprise Manager Grid Control collects configuration information for all managed Oracle BI targets on the hosts that have a running Management Agent. The agent periodically sends the configuration information to the Management Repository over HTTP or HTTPS, allowing you to view up-to-date configuration information for your Oracle BI environment through Grid Control.
## Table 1–3  Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle BI Server</td>
<td>■ Product Version</td>
</tr>
<tr>
<td></td>
<td>■ Cache Configuration:</td>
</tr>
<tr>
<td></td>
<td>- Cache Enable (ENABLE) - Indicates whether cache is enabled</td>
</tr>
<tr>
<td></td>
<td>- Cache Replace Algorithm (REPLACE_ALGORITHM) - When cache is replaced this is the algorithm used to determine which cache entry to replace</td>
</tr>
<tr>
<td></td>
<td>- Max Rows Per Cache Entry (MAX_ROWS_PER_CACHE_ENTRY) - The maximum rows per entry in cache. 0 is unlimited size.</td>
</tr>
<tr>
<td></td>
<td>- Max Cache Entry Size (MAX_CACHE_ENTRY_SIZE) - The maximum size of each cache entry.</td>
</tr>
<tr>
<td></td>
<td>- Max Cache Entries (MAX_CACHE_ENTRIES) - The maximum number of cache entries before using REPLACE_ALGORITHM</td>
</tr>
<tr>
<td></td>
<td>- Max Global Cache Entries (MAX_GLOBAL_CACHE_ENTRIES) - The maximum number of shared cache entries when cluster aware caching is turned on.</td>
</tr>
<tr>
<td></td>
<td>- Cache Poll Seconds (CACHE_POLL_SECONDS) - The number of seconds defining the interval when Analytic Server will check for shared cache.</td>
</tr>
<tr>
<td></td>
<td>■ Locale - The language selected for the Oracle BI environment</td>
</tr>
<tr>
<td></td>
<td>■ DB Dynamic Library:</td>
</tr>
<tr>
<td></td>
<td>- DB2CLI - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- DB2CLI35 - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- NQSXML - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- OCI10g - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- OCI7 - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- OCI8 - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- OCI8i - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- ODBC200 - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- ODBC350 - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>- XMLA - DLL name of DBGateway</td>
</tr>
<tr>
<td></td>
<td>■ Optimization Flags:</td>
</tr>
<tr>
<td></td>
<td>- Strong Date Time Check (STRONG_DATETIME_TYPE_CHECKING) - TRUE or FALSE</td>
</tr>
<tr>
<td></td>
<td>■ Security:</td>
</tr>
<tr>
<td></td>
<td>- SSL - Whether Analytic Server uses SSL</td>
</tr>
</tbody>
</table>
Server:
- Enable DB Hints (ENABLE_DB_HINTS) - Enable backend database hits
- DISCONNECTED - When Oracle Business Intelligence Server is being run as part of OracleBI Disconnected Client, the DISCONNECTED parameter must be set to YES. The default is NO.
- Client Management Thread Max (CLIENT_MGMT_THREADS_MAX) - The maximum number of client management threads (RFC)
- Server Thread Stack Size (SERVER_THREAD_STACK_SIZE) - When a thread is created, this is how much memory is allocated for the thread stack size
- DB Gateway Thread Range (DB_GATEWAY_THREAD_RANGE) - Minimum and Maximum number of threads in the global DB Gateway thread pool
- RPC Service or Port Number (RPC_SERVICE_OR_PORT) - The RPC port that Analytic Server listens on
- Max Session Limit (MAX_SESSION_LIMIT) - Maximum number of sessions allowed on this Analytic Server instance
- Max Drill Down Info Cache Entries (MAX_DRILLDOWN_INFO_CACHE_ENTRIES) - The maximum number of drill down info objects to keep in memory
- Server Thread Range (SERVER_THREAD_RANGE) - Number of threads in the primary execution thread pool
- Max Drill Down Query Cache Entries (MAX_DRILLDOWN_QUERY_CACHE_ENTRIES) - The maximum number of drill down query objects to keep in memory
- DB Gateway Thread Stack Size (DB_GATEWAY_THREAD_STACK_SIZE) - When a DB Gateway thread is created, this is how much memory is allocated for the thread stack size
- Max Query Plan Cache Entries (MAX_QUERY_PLAN_CACHE_ENTRIES) - The maximum number of logical query plans to keep in memory
- Cluster Participant (CLUSTER_PARTICIPANT) - Whether this Analytic Server is a member of a cluster
- Max Expanded Sub Query Predicates (MAX_EXPANDED_SUBQUERY_PREDICATES) - The maximum number of sub query predicates
- Sort Memory Size
- Sort Buffer Increment Size
Oracle BI Presentation Server

- Product Version
- BI Presentation Server Configuration Parameters:
  - Config Directory
  - Connection Expire Minutes - Defines the length of idle time the connection between the Oracle BI Presentation Server and the Oracle BI Analytics Server is maintained before this connection is closed. This setting stands for idle time only.
  - Connection Max Concurrent Establish - The maximum number of threads that can be concurrently attempting to create connections to Oracle BI Analytics Server. Any threads beyond this number generate an error with an exception.
  - Corda Lib Dir
  - CSV Charset
  - Data Dir - Data Directory
  - Debug Startup
  - Default Message Dir
  - Disconnected - When Oracle Business Intelligence Server is being run as part of Oracle BI Disconnected Client, the DISCONNECTED parameter must be set to YES. The default is NO.
  - Disconnected Dir - The location on disk of the Disconnected Applications directory
  - Drillability Status - If FALSE the Oracle BI Presentation Server does not inquire about the drill status of columns and results cannot be drilled. Improves performance by not calling NQS Get Level Drillability, if the installation does not require drilling capability.
  - DSN AnalyticsWeb
  - Enable 508 - Shows download menus as separate links
  - Entropy Source - Controls whether to use high quality or standard quality entropy source for session IDs. If the requested source is not available, the server does not start. Note also that the high quality entropy source is likely to be significantly slower and may involve more blocking.
  - Force Refresh - Causes Presentation Server to always bypass its cache. To be used only for testing - may have serious performance implications.
  - Harden XSS
  - Java Home
  - Java Host Dir
  - Java Host Lib Dir
  - Java Max Heap PDF
  - Java Min Heap PDF
  - License File - Location of license file
  - Log Config File
  - Log Config Node
  - Maintenance Mode - Causes Presentation Server to start in maintenance mode - primarily for OnDemand.
  - Maximum Content-Disposition Filename Length - Sets the maximum length of Content-Disposition filename parameter permissible. Anything over this length is truncated. As this length refers to the final encoded value in the header, the actual number of Unicode characters in the filename may vary.
  - Maximum Follow Links
  - Max Tickets LifeTime
  - Minutes - Controls expiration of tickets used by external processes for security.

Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle BI</td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td>Server</td>
<td></td>
</tr>
</tbody>
</table>

Oracle Business Intelligence Management Pack Getting Started Guide 1-35
## Configuration Management

### Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
</table>
| Oracle BI Presentation Server | Minimum PDF Size  
|                           | Msg CRC Checking  
|                           | On Demand Answers - Set to true for On Demand deployment. Affects some UI generation and program behavior  
|                           | PDF Lib Directory  
|                           | PDF Server Service String  
|                           | PDF Threads  
|                           | Persistent Storage Dir - The location where Oracle BI Presentation Server stores iBot deliveries. At startup, Oracle BI Presentation Server attempts to create this directory  
|                           | Persistent Storage State  
|                           | Disconnected Application Repository  
|                           | ResDir - Specifies the physical location of the primary resource files of Oracle BI Presentation Server (resource files that ship with the product and not files that are customized for each customer). If specified a full path must be provided. Note also that Oracle BI Presentation Server must have permission to read this path. If this is a network share then the administrator must ensure that the user under which Oracle BI Presentation Server is running has read access to the share as well as read access to the file system the share is exported from. If this value is specified and is different from the physical location of the Oracle BI Presentation Server DLL files then URL\ResourceVirtualPath must be specified.  
|                           | SA Root Dir  
|                           | SAW Root Dir  
|                           | Search ID Expire Minutes  
|                           | System Subject Area - Whether or not a system subject area exists and should be used - Temporary file directory  
|                           | UI Default Timeout Minutes - Controls timeout on HTTP server threads  
|                           | Unaccess Running Timeout Minutes - If a running query has not been accessed for this amount of time the query is cancelled. This handles the case where the user is at the "Searching" screen and goes elsewhere abandoning the search. Do not make this too small because often the user might want to go elsewhere and come back to the search later  
|                           | Use PDF Server  
|                           | Use Replication - Controls whether replication is enabled  
|                           | Web DLL  
|                           | XML External Directory  
|                           | Preloading of ODBC Driver  
|                           | Allowed Languages  
|                           | Allowed Locale  

1-36 Oracle Business Intelligence Management Pack Getting Started Guide
BI Presentation Server Display Configurations

- **Allow Remember Password**: Enables or disables the functionality to 'remember' user passwords. A value other than 'True' disables the capability.
- **Collapsible Sections Default**: Determines whether dashboard sections are collapsible.
- **Cube Max Populated Cells**: The maximum number of populated cells in the Pivot Table. If this maximum is exceeded, the user receives an error when rendering the pivot table.
- **Cube Max Records**: The maximum number of records returned by a query for the Pivot Table engine to process. This roughly governs the maximum number of cells that can be populated in a pivot table (unpopulated cells in a sparse pivot table do not count). If this maximum is exceeded, the user receives an error when rendering the pivot table.
- **Default Skin**: Default skin for dashboard.
- **Default Style**: Default style for dashboard.
- **Dashboard Inline Load**: Controls whether dashboard loads inline or with a page refresh.
- **Dashboard Max Before Menu**: Controls how many dashboards will display in the banner before switching to menu dashboards.
- **Dashboard Show Inline**: Shows the hidden iframe used for dashboard updates.
- **Disable PivotTable Auto Preview**: Disable auto preview of PivotTables.
- **NewCursor Wait Seconds**: Determines the duration for which the server waits for results after the initial request before returning the Search page to the browser. You can set a higher value (such as 3 seconds) to avoid page refreshes if the majority of queries are not returned in a second. If you run performance tests, some test implementations function efficiently only if this setting is very high (such as 3600 seconds).
- **OldCursor Wait Seconds**: Determines the duration the server waits for results after subsequent requests before refreshing the Search page to the browser. It may be useful to set this value higher (such as 60 seconds) to avoid page refreshes.
- **Show Page Tabs Always**: Determines whether the dashboard page tabs are shown even if the current page is hidden.
- **Show Section Headings Default**: Determines whether the dashboard section headings are shown by default.
- **Portal Banner Height**: Determines the height of the portal banner frame displayed in Intelligence Dashboards. This is an implementation-wide setting, so all portal style sheets must anticipate this value.
- **Prompt Drop Down Max Values**: The maximum number of rows that can appear in the drop-down list of prompts.
- **ResultRow Limit**: The maximum number of rows that can appear in the table view.
- **Default Rows Displayed**: Sets the default rows for each page when the table view is viewed in browser and when none is specified by the user.
- **Default Rows Displayed In Delivery**: Sets the default rows for each page when the table view is delivered.
- **Default Rows Displayed In Download**: Sets the default rows for each page when the table view is downloaded to Excel.
- **Max Accounts Per Page**: Max number of accounts per page.
- **Max Visible Columns**: Sets the maximum number of columns to be displayed in a Pivot View.
- **Max Visible Pages**: Sets the maximum number of page choices (or pages in PDF) to be displayed in a Pivot View.
- **Max Visible Rows**: Sets the maximum number of rows to be displayed in a Pivot View.
- **Max Visible Sections**: Sets the maximum number of sections to be displayed in a Pivot View.

### Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI Presentation Server Display Configurations</td>
<td></td>
</tr>
<tr>
<td>Allow Remember Password</td>
<td>Enables or disables the functionality to 'remember' user passwords. A value other than 'True' disables the capability.</td>
</tr>
<tr>
<td>Collapsible Sections Default</td>
<td>Determines whether dashboard sections are collapsible.</td>
</tr>
<tr>
<td>Cube Max Populated Cells</td>
<td>The maximum number of populated cells in the Pivot Table. If this maximum is exceeded, the user receives an error when rendering the pivot table.</td>
</tr>
<tr>
<td>Cube Max Records</td>
<td>The maximum number of records returned by a query for the Pivot Table engine to process. This roughly governs the maximum number of cells that can be populated in a pivot table (unpopulated cells in a sparse pivot table do not count). If this maximum is exceeded, the user receives an error when rendering the pivot table.</td>
</tr>
<tr>
<td>Default Skin</td>
<td>Default skin for dashboard.</td>
</tr>
<tr>
<td>Default Style</td>
<td>Default style for dashboard.</td>
</tr>
<tr>
<td>Dashboard Inline Load</td>
<td>Controls whether dashboard loads inline or with a page refresh.</td>
</tr>
<tr>
<td>Dashboard Max Before Menu</td>
<td>Controls how many dashboards will display in the banner before switching to menu dashboards.</td>
</tr>
<tr>
<td>Dashboard Show Inline</td>
<td>Shows the hidden iframe used for dashboard updates.</td>
</tr>
<tr>
<td>Disable PivotTable Auto Preview</td>
<td>Disable auto preview of PivotTables.</td>
</tr>
<tr>
<td>NewCursor Wait Seconds</td>
<td>Determines the duration for which the server waits for results after the initial request before returning the Search page to the browser. You can set a higher value (such as 3 seconds) to avoid page refreshes if the majority of queries are not returned in a second. If you run performance tests, some test implementations function efficiently only if this setting is very high (such as 3600 seconds).</td>
</tr>
<tr>
<td>OldCursor Wait Seconds</td>
<td>Determines the duration the server waits for results after subsequent requests before refreshing the Search page to the browser. It may be useful to set this value higher (such as 60 seconds) to avoid page refreshes.</td>
</tr>
<tr>
<td>Show Page Tabs Always</td>
<td>Determines whether the dashboard page tabs are shown even if the current page is hidden.</td>
</tr>
<tr>
<td>Show Section Headings Default</td>
<td>Determines whether the dashboard section headings are shown by default.</td>
</tr>
<tr>
<td>Portal Banner Height</td>
<td>Determines the height of the portal banner frame displayed in Intelligence Dashboards. This is an implementation-wide setting, so all portal style sheets must anticipate this value.</td>
</tr>
<tr>
<td>Prompt Drop Down Max Values</td>
<td>The maximum number of rows that can appear in the drop-down list of prompts.</td>
</tr>
<tr>
<td>ResultRow Limit</td>
<td>The maximum number of rows that can appear in the table view.</td>
</tr>
<tr>
<td>Default Rows Displayed</td>
<td>Sets the default rows for each page when the table view is viewed in browser and when none is specified by the user.</td>
</tr>
<tr>
<td>Default Rows Displayed In Delivery</td>
<td>Sets the default rows for each page when the table view is delivered.</td>
</tr>
<tr>
<td>Default Rows Displayed In Download</td>
<td>Sets the default rows for each page when the table view is downloaded to Excel.</td>
</tr>
<tr>
<td>Max Accounts Per Page</td>
<td>Max number of accounts per page.</td>
</tr>
<tr>
<td>Max Visible Columns</td>
<td>Sets the maximum number of columns to be displayed in a Pivot View.</td>
</tr>
<tr>
<td>Max Visible Pages</td>
<td>Sets the maximum number of page choices (or pages in PDF) to be displayed in a Pivot View.</td>
</tr>
<tr>
<td>Max Visible Rows</td>
<td>Sets the maximum number of rows to be displayed in a Pivot View.</td>
</tr>
<tr>
<td>Max Visible Sections</td>
<td>Sets the maximum number of sections to be displayed in a Pivot View.</td>
</tr>
</tbody>
</table>
Max Default Values - The maximum number of default values for dashboard prompts
Max DropDown Values - The maximum number of rows that can appear in the drop-down list of prompts
Reload Inline - Controls whether to use the inline load when doing prompt constrain or clicking Go button
Max Items Per Page

- BI Presentation Server Client Configurations
  - Auto Flush Enabled
  - Auto Flush Threshold
  - Client Session Expire Minutes - Defines the idle time before Oracle BI Presentation Server deletes the user’s client (browser) session information from its memory. This session includes user-specific state information such as request cache, dashboard page state, subject area information, connection information, and so on
  - Cookie Domain - Domain for which the cookies apply. This setting is only for Web experts
  - Cookie Expire - Cookie Lifetime in minutes
  - Cookie Path
  - Cookie Secure - Secure cookie Lifetime in minutes
  - Default Timeout Minutes - Determines the default thread timeout used for long-running operations on worker threads
  - Logon Expire Minutes - Time after which a user is automatically logged off (unless the user has clicked Remember Password). To disable this you must the value greater than ClientSessionExpireMinutes
  - Username Cookie Name - Cookie used to remember the username
  - Password Cookie Name - Cookie name used for the password cookie
  - Persist Cookies - True or False
  - Session ID Cookie Name - Cookie name used for session IDs (session cookie)
  - Session ID Entropy Source Quality - Controls whether to use high quality or standard quality entropy source for session IDs. If the requested source is not available, the server does not start. Note also that the high quality entropy source is likely to be significantly slower and may involve more blocking
  - Impersonator
  - SSO Client Header
  - SSO Enabled
  - SSO Server Variable
  - SSO Strip Windows Domain

- Absolute Command URL Prefix - Determines how Oracle BI Presentation Server generates absolute URLs to the ISAPI extension. If a value is explicitly specified, it must be of the form protocol://server//path for example the complete virtual path to Oracle BI Presentation Server
  - Command Name - Determines how Oracle BI Presentation Server generates URLs for static resources such as images, script files, style sheets, (and other user specified files). If a value is explicitly specified, it must be of the form protocol://server//file then the prefix used is the same as that used for commands to the Oracle BI Presentation Server ISAPI extension.

Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Default Values</td>
<td>The maximum number of default values for dashboard prompts</td>
</tr>
<tr>
<td>Max DropDown Values</td>
<td>The maximum number of rows that can appear in the drop-down list of prompts</td>
</tr>
<tr>
<td>Reload Inline</td>
<td>Controls whether to use the inline load when doing prompt constrain or clicking Go button</td>
</tr>
<tr>
<td>Max Items Per Page</td>
<td></td>
</tr>
<tr>
<td>BI Presentation Server Client Configurations</td>
<td></td>
</tr>
<tr>
<td>Auto Flush Enabled</td>
<td></td>
</tr>
<tr>
<td>Auto Flush Threshold</td>
<td></td>
</tr>
<tr>
<td>Client Session Expire Minutes</td>
<td>Defines the idle time before Oracle BI Presentation Server deletes the user’s client (browser) session information from its memory. This session includes user-specific state information such as request cache, dashboard page state, subject area information, connection information, and so on</td>
</tr>
<tr>
<td>Cookie Domain</td>
<td>Domain for which the cookies apply. This setting is only for Web experts</td>
</tr>
<tr>
<td>Cookie Expire</td>
<td>Cookie Lifetime in minutes</td>
</tr>
<tr>
<td>Cookie Path</td>
<td></td>
</tr>
<tr>
<td>Cookie Secure</td>
<td>Secure cookie Lifetime in minutes</td>
</tr>
<tr>
<td>Default Timeout Minutes</td>
<td>Determines the default thread timeout used for long-running operations on worker threads</td>
</tr>
<tr>
<td>Logon Expire Minutes</td>
<td>Time after which a user is automatically logged off (unless the user has clicked Remember Password). To disable this you must the value greater than ClientSessionExpireMinutes</td>
</tr>
<tr>
<td>Username Cookie Name</td>
<td>Cookie used to remember the username</td>
</tr>
<tr>
<td>Password Cookie Name</td>
<td>Cookie name used for the password cookie</td>
</tr>
<tr>
<td>Persist Cookies</td>
<td>True or False</td>
</tr>
<tr>
<td>Session ID Cookie Name</td>
<td>Cookie name used for session IDs (session cookie)</td>
</tr>
<tr>
<td>Session ID Entropy Source Quality</td>
<td>Controls whether to use high quality or standard quality entropy source for session IDs. If the requested source is not available, the server does not start. Note also that the high quality entropy source is likely to be significantly slower and may involve more blocking</td>
</tr>
<tr>
<td>Impersonator</td>
<td></td>
</tr>
<tr>
<td>SSO Client Header</td>
<td></td>
</tr>
<tr>
<td>SSO Enabled</td>
<td></td>
</tr>
<tr>
<td>SSO Server Variable</td>
<td></td>
</tr>
<tr>
<td>SSO Strip Windows Domain</td>
<td></td>
</tr>
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<td>Absolute Command URL Prefix</td>
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</tr>
</tbody>
</table>
Customer Resource Physical Path - Specifies the physical location of resource files that are not part of a default installation (includes styles/skins customized for customers). If specified, a full path must be provided. Note that Oracle BI Presentation Server must have permission to read from this path. If this is a network share, then the administrator must make sure that the user under which Oracle BI Presentation Server is running has read access to the share as well as read access to the file system the share is exported from.

Customer Resource Virtual Path - This setting overrides the virtual path used for resource files that are not part of a default installation.

Force Absolute Command URL

Force Absolute Resource URL

Resource Physical Path - Specifies the physical location of Oracle BI Presentation Server’s primary resource files (resource files that ship with the product and not files that are customized for each customer). If specified, a full path must be provided. Note also that Oracle BI Presentation Server must have permission to read this path. If this is a network share, then the administrator must ensure that the user under which Oracle BI Presentation Server is running has read access to the share as well as read access to the file system the share is exported from. If this value is specified and is different from the physical location of the Oracle BI Presentation Server DLL files, the URL\ResourceVirtualPath must be specified.

Resource Server Prefix - Designates a separate Web server to deliver static resources thereby reducing the load on the main Web server. This prefix is used for the resources that have a fully qualified virtual path of the form "//Path//file". If a resource file has a relative virtual path of the form "Path//file", the prefix used is the same used for commands to the Oracle BI Presentation Server extension.

Resource Virtual Path - This setting overrides the virtual path used for Oracle BI Presentation Server's primary resource files. To generate relative URLs, the virtual path defaults to "Res" assuming that the resource folder is present under the same virtual directory as the Oracle BI Presentation Server DLL files. To generate absolute URLs, the value of URL\AbsoluteCommandURLPrefix is used. If a value is specified, it must be a fully qualified virtual path of the form "//Path//file", the prefix used is the same used for commands to the Oracle BI Presentation Server extension.

Cache Banner Dashboard List

Cache Low/Memory Threshold MB - Memory threshold (in megabytes). When the query cache exceeds this value, the application cleans up older cache entries.

Cache Max Entries - CacheMaxEntries is roughly the maximum number of open record sets the Oracle BI Presentation Server keeps open at a time. The minimum value is 3. For substantial implementations, increase this value to 1000 or higher. The main factor that affects its size is the memory consumption.

Cache Max ExpireMinutes - Sets the maximum duration an entry in the query cache can exist before it is removed. The Default is one hour. CacheMinUserExpireMinutes can make an entry for a particular user last longer than CacheMaxExpireMinutes. A cache entry may be removed before one hour if many queries are being run (this value is only a maximum).

Cache Min ExpireMinutes - Sets the minimum amount of time a cache entry can exist in the query cache before it is removed.

Cache Minimum Memory Threshold MB - Memory threshold (in megabytes) beyond which the query cache no longer accepts new queries until sufficient memory has been recovered.

Cache Min User Expire Minutes - Sets the minimum amount of time a cache entry remains for a user after being viewed. A cache entry is not removed for a specific user for this amount of time after the user has last used the cache entry. For example, if CacheMaxExpireMinutes is set for one hour and the user logs in again during the 59th minute, the entry still exists for that user for an additional 10 minutes.

Cache Refresh Optimize - Causes duplicate requests to piggyback on each other.

Oracle Business Intelligence Management Pack Getting Started Guide 1-39
Configuration Management

Max Lifetime Minutes - The maximum lifetime in minutes of a cache entry in the Column Info metadata cache (regardless of when it was last accessed)

Unused Expire Minutes - The number of minutes before unused entries in the Column Info metadata cache are purged

- BI Presentation Server Marketing Configurations
  - Marketing File System - File path used by Oracle BI Marketing to share output list files
  - Marketing FunctionShip Fixed Random - If set to TRUE the SQL generator issues SQL so that the Oracle BI Analytics Server can function. The function ship is specific to Fixed Random Sampling in Segment Trees
  - Marketing FunctionShip Pct Random - If set to TRUE the SQL generator issues SQL so that the Oracle BI Analytics Server can function. The function ship is specific to Percentage Random Sampling in Segment Trees
  - Marketing Jobs Log DetailLevel
  - Marketing Jobs LogSize - Maximum number of jobs in the job history log. When the maximum is reached the oldest 25% are timed out
  - Marketing Jobs Wait Seconds - Duration between successive checks on the status of a Marketing job run from the User Interface. The jobs include: Purge and List Format Preview, /List Generation, Saved Result Set Creation (in the Segments UI or the Segment Trees UI), Segment Counts, and Segment Tree Counts. The wait-refresh cycles are meant to keep the browser from timing out while waiting on the jobs to complete
  - Marketing Preview Path - File path where preview and output list files are written
  - Marketing Preview Size - Number of default records shown in the List Format preview UI
  - This configuration key can be overridden in the UI for the preview job
  - Marketing Quality Numeric Data
  - Marketing Use BOM - If set to FALSE the list generateMiniDumpion files do not contain the BOM characters at the file start
  - Marketing Wrap Column Headers - If set to FALSE, column headers are not wrapped in text qualifiers. This applies only to delimited file formats
  - Mktg Cache Temp CreateSQL - If using temporary tables, this key specifies the parametrized SQL statement to create the table. The parameter @TempTableName contains the table name (unique name generated internally by the Marketing Server)
  - Mktg Cache Temp DropSQL - If using temporary tables, this specifies the parametrized SQL statement to drop the table. The parameters @TempTableName contains the table name
  - Mktg Cache Temp InsertSQL - If using temporary tables, this key specifies the parametrized SQL statement to move from temporary to cache table. The parameters @TempTableName contains the table name (unique name generated internally by the Marketing Server). The parameter @PhysicalTableName contains the cache table name (also set internally by Marketing server)
  - Mktg Cache Temp TableName Prefix - Prefix to the temporary table name used above. The Marketing server picks only the first two characters of the prefix specified
  - Mktg Cache Use Temp Table - If set to TRUE, the Marketing Server uses an intermediary temporary table (a different one for each transaction) to store cache values before moving it to the cache table

Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets

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<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Lifetime Minutes</td>
<td>The maximum lifetime in minutes of a cache entry in the Column Info metadata cache (regardless of when it was last accessed)</td>
</tr>
<tr>
<td>Unused Expire Minutes</td>
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</tr>
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<td>File path used by Oracle BI Marketing to share output list files</td>
</tr>
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</tr>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
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<td>If set to FALSE the list generateMiniDumpion files do not contain the BOM characters at the file start</td>
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</tr>
</tbody>
</table>
BI Presentation Server Alerts Configurations:
- Content Delivery Mode
- Debug Delivery Email
- Default Delivery Disposition
- Default Delivery Format - Allowed values: html, pdf, excel, excel2000, text, and csv. Format used when a delivery format has been left as device default
- Embed Resources Inline - If true, CSS style sheets are copied into HTML pages. If false, the CSS style sheets are included as attachments and are referenced from the HTML pages
- Force 7bit ASCII Attachment Names
- IBot Connect String
- Ignore Webcat Delivery Profiles
- MHTML Mime Type
- Schedule Server - Element with attributes: ssl, schCredAlias, ccsPrimary, ccsPrimaryPort, ccsSecondary, ccsSecondaryPort
- Send IBot Connect String
- Session Cleanup Frequency Seconds - If an iBot session goes idle for this value, then it is closed and released. This is to guarantee steady state memory consumption in the face of either SASch crashing or other network problems
- Session Timeout Seconds
- UpperCase Recipient Names
- Use ForwardOnly CursorFor SystemSA

BI Presentation Server Charts Configurations:
- Axis Limits Fudge Factor - Factor used when computing the minimum and maximum values for the axes
- Axis Limits Overscan Limit - Another factor used for computing the minimum and maximum values for the axes
- Cache Directory - Sets the location Oracle BI Presentation Server uses as temporary storage for cache of image files as well as the corresponding image map files
- Default Image Type - Sets the default image type to be used for charts. The available choices are FLASH, SVG, and PNG. Flash and SVG images provide the greatest degree of interactivity. PNG images currently support no interaction such as drilling and navigation
- Default Interaction - Determines the default "interaction" behavior of Oracle BI Presentation Server charts. The possible values are: (a) Drill, (b) Navigate, and (c) None. If the value is set to Drill, charts are by default created with drilling capability. If the value is Navigate, charts are set up to navigate to the value of Charts\DefaultNavigationPath. If this value is set to None, charts are by default non-interactive. For example, clicking on a chart (or region of a chart) does not display anything. Note that this can always be overridden through the user interface
- Default Navigation Path - If the value of Charts\DefaultInteraction is set to Navigate, this setting specifies the default URL to which the charts navigate. Otherwise this value is ignored
- Delivered Image Type - Determines the image type used for deliveries. The value supported is PNG
- Flash CLSID - Adjusts the CLSID generated in the HTML page for flash images
- Flash CodeBase - Adjusts the codebase generated in the HTML page for flash images
- Flash Plugins Page - Used with EMBED tags for Flash images
- FontMap File

Table 1-3 (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI Presentation Server Alerts Configurations:</td>
<td></td>
</tr>
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<td>Debug Delivery Email</td>
<td></td>
</tr>
<tr>
<td>Default Delivery Disposition</td>
<td></td>
</tr>
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</tr>
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<td>Embed Resources Inline - If true, CSS style sheets are copied into HTML pages. If false, the CSS style sheets are included as attachments and are referenced from the HTML pages</td>
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<td>Force 7bit ASCII Attachment Names</td>
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</tr>
<tr>
<td>IBot Connect String</td>
<td></td>
</tr>
<tr>
<td>Ignore Webcat Delivery Profiles</td>
<td></td>
</tr>
<tr>
<td>MHTML Mime Type</td>
<td></td>
</tr>
<tr>
<td>Schedule Server - Element with attributes: ssl, schCredAlias, ccsPrimary, ccsPrimaryPort, ccsSecondary, ccsSecondaryPort</td>
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</tr>
<tr>
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<td>Flash Plugins Page - Used with EMBED tags for Flash images</td>
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</tr>
<tr>
<td>FontMap File</td>
<td></td>
</tr>
</tbody>
</table>
Table 1–3  (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>JavaHost Service String</td>
<td>Points to the box that is running the Java host</td>
</tr>
<tr>
<td>Max Completion Time In Sec</td>
<td></td>
</tr>
<tr>
<td>Max In Memory Chart</td>
<td>Maximum size of charts that are kept in memory. All others are saved to disk</td>
</tr>
<tr>
<td>Max Processing Threads</td>
<td></td>
</tr>
<tr>
<td>Max Queued Charts</td>
<td></td>
</tr>
<tr>
<td>SVG Plugins Page</td>
<td>Entry used to write out HTML tag for SVG images</td>
</tr>
<tr>
<td>Max Concurrent</td>
<td>Maximum concurrently executing funnel chart requests</td>
</tr>
<tr>
<td>Max Canvas Height</td>
<td>The maximum height of gauge canvas</td>
</tr>
<tr>
<td>Max Canvas Width</td>
<td>The maximum width of gauge canvas</td>
</tr>
<tr>
<td>Max Gauges Per Canvas</td>
<td>The maximum number of gauges for each canvas or how many rows to process for gauges</td>
</tr>
<tr>
<td>BI Presentation Server Report Cache Configurations</td>
<td></td>
</tr>
<tr>
<td>BI Presentation Server State Pool Configurations:</td>
<td></td>
</tr>
<tr>
<td>Cross User Visibility</td>
<td></td>
</tr>
<tr>
<td>Disk Check Usage Interval Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Check Usage Interval Seconds</td>
<td></td>
</tr>
<tr>
<td>Disk Cleanup Interval Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Expire Minutes</td>
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</tr>
<tr>
<td>Disk Expire Reduction Ratio</td>
<td></td>
</tr>
<tr>
<td>Disk Maximum Usage KB</td>
<td></td>
</tr>
<tr>
<td>Disk Minimum Free KB</td>
<td></td>
</tr>
<tr>
<td>Disk Resave Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Sub Directories</td>
<td></td>
</tr>
<tr>
<td>File Extension</td>
<td></td>
</tr>
<tr>
<td>Memory Buckets</td>
<td></td>
</tr>
<tr>
<td>Memory Cleanup Interval Minutes</td>
<td></td>
</tr>
<tr>
<td>Memory Expire Minutes</td>
<td></td>
</tr>
<tr>
<td>Memory Maximum Entries</td>
<td></td>
</tr>
<tr>
<td>Memory Minimum Bucket Size</td>
<td></td>
</tr>
<tr>
<td>Verify Reloaded Entry Key</td>
<td></td>
</tr>
<tr>
<td>BI Presentation Server XML Cache Defaults</td>
<td></td>
</tr>
<tr>
<td>Cache Directory</td>
<td></td>
</tr>
<tr>
<td>Cross User Visibility</td>
<td></td>
</tr>
<tr>
<td>Disk Check Usage Interval Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Check Usage Interval Seconds</td>
<td></td>
</tr>
<tr>
<td>Disk Cleanup Interval Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Expire Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Expire Reduction Ratio</td>
<td></td>
</tr>
<tr>
<td>Disk Maximum Usage KB</td>
<td></td>
</tr>
<tr>
<td>Disk Minimum Free KB</td>
<td></td>
</tr>
<tr>
<td>Disk Resave Minutes</td>
<td></td>
</tr>
<tr>
<td>Disk Sub Directories</td>
<td></td>
</tr>
</tbody>
</table>
Configuration Management

Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>File Extension</td>
</tr>
<tr>
<td></td>
<td>Memory Buckets</td>
</tr>
<tr>
<td></td>
<td>Memory Cleanup Interval Minutes</td>
</tr>
<tr>
<td></td>
<td>Memory Expire Minutes</td>
</tr>
<tr>
<td></td>
<td>Memory Maximum Entries</td>
</tr>
<tr>
<td></td>
<td>Memory Minimum Bucket Size</td>
</tr>
<tr>
<td></td>
<td>Verify Reloaded EntryKey</td>
</tr>
<tr>
<td></td>
<td>BI Presentation Server Thread Pool Configurations:</td>
</tr>
<tr>
<td></td>
<td>Idle Thread Timeout Secs - The duration before an idle thread is reaped</td>
</tr>
<tr>
<td></td>
<td>Max Queue Size - Maximum number of jobs allowed in the queue</td>
</tr>
<tr>
<td></td>
<td>Max Threads - Maximum number of threads</td>
</tr>
<tr>
<td></td>
<td>Min Threads - Minimum number of threads</td>
</tr>
<tr>
<td></td>
<td>Worker Thread Size Kb - Number of threads in a stack in kilobytes</td>
</tr>
<tr>
<td></td>
<td>BI Presentation Server Other Configurations</td>
</tr>
<tr>
<td></td>
<td>Admin URL - The URL for the Actuate Admin portal where an administrator can manage Advanced Reporting users permissions jobs files and folders</td>
</tr>
<tr>
<td></td>
<td>AuthId Expiry - The expiration period in minutes of the authentication ID that comes from Actuate</td>
</tr>
<tr>
<td></td>
<td>Connect String Parameter - The parameter in every report that accepts the address for a connection to the Analytics Server</td>
</tr>
<tr>
<td></td>
<td>JavaHost Service String - Points to the box that is running the JavaHost</td>
</tr>
<tr>
<td></td>
<td>Server Analytics ODBCDSN - The DSN set up on the Actuate iServer host to be used for authentication</td>
</tr>
<tr>
<td></td>
<td>Server URL - Points to the Actuate iServer</td>
</tr>
<tr>
<td></td>
<td>Volume - The volume containing the Actuate reports and documents</td>
</tr>
<tr>
<td></td>
<td>Web URL - The URL for the Actuate JSP front-end</td>
</tr>
<tr>
<td></td>
<td>Max Follow Links</td>
</tr>
<tr>
<td></td>
<td>Cache Cleanup Secs</td>
</tr>
<tr>
<td></td>
<td>Cache Timeout Secs</td>
</tr>
<tr>
<td></td>
<td>Hash UserHome Directories - How many characters to use to hash usernames into sub directories</td>
</tr>
<tr>
<td></td>
<td>Catalog AutoSave Minutes</td>
</tr>
<tr>
<td></td>
<td>Catalog AutoSave TimeSpanDays</td>
</tr>
<tr>
<td></td>
<td>Catalog Max Autosaves</td>
</tr>
<tr>
<td></td>
<td>Catalog Path - Contains the location of the file where the Web Catalog is stored. This entry must exist and must be valid. The Oracle BI Presentation Server will not start if the entry is invalid or missing</td>
</tr>
<tr>
<td></td>
<td>Disconnected Dir - The location on disk of the Disconnected Applications directory</td>
</tr>
<tr>
<td></td>
<td>Archive Ibots</td>
</tr>
<tr>
<td></td>
<td>Connection Point Buffer Size</td>
</tr>
<tr>
<td></td>
<td>Disable Send Delay</td>
</tr>
<tr>
<td></td>
<td>Idle Cleanup Frequency Secs</td>
</tr>
<tr>
<td></td>
<td>Idle Timeout Secs</td>
</tr>
<tr>
<td></td>
<td>Keep Alive Frequency Secs</td>
</tr>
</tbody>
</table>

Oracle Business Intelligence Management Pack Getting Started Guide 1-43
**Configuration Management**

**Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets**

<table>
<thead>
<tr>
<th>Target Type</th>
<th>Collected Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep Alive Max Failures</td>
<td></td>
</tr>
<tr>
<td>Max Age Secs</td>
<td></td>
</tr>
<tr>
<td>Max Connections</td>
<td></td>
</tr>
<tr>
<td>Max Retry Attempts</td>
<td></td>
</tr>
<tr>
<td>Server Connect String</td>
<td></td>
</tr>
<tr>
<td>Class Main</td>
<td></td>
</tr>
<tr>
<td>Jni Library - Absolute path to jvm.dll</td>
<td></td>
</tr>
<tr>
<td>JVM Options - Java command line parameters. Default: -Xms128m -Xmx256m -Xrs -Djava.class.path:CLASSPATH -Djava.awt.headless:true -Djava.util.logging.config.file: SADATADIR/web/config/logconfig.txt where CLASSPATH is the list of javahost jar files separated by semicolons</td>
<td></td>
</tr>
<tr>
<td>Log Config File</td>
<td></td>
</tr>
<tr>
<td>Admin Dump Type</td>
<td>Completely Disable - TRUE prevents Oracle BI Presentation Server from producing any dump or core files. Other MiniDump configuration settings are irrelevant if this value is TRUE</td>
</tr>
<tr>
<td>Default Dump Type</td>
<td>Default type of dump to perform. Possible values: disabled Do not capture a dump. normal Capture only enough information to produce stack traces. Same as MiniDumpNormal. For more information, search the MSDN Web site for MiniDump options</td>
</tr>
<tr>
<td>Dump Directory</td>
<td>Directory in which to place dumps</td>
</tr>
<tr>
<td>Max Dumps</td>
<td>The maximum number of dumps to place in the DumpDirectory before overwriting old dumps</td>
</tr>
<tr>
<td>Preload Dbg help</td>
<td>Selecting TRUE loads Microsoft dbghelp.dll library at startup instead of waiting for a crash to occur. This provides for more reliable dumping</td>
</tr>
<tr>
<td>SETranslator Dump Type</td>
<td>The type of dump to perform when hardware exception translator is invoked</td>
</tr>
<tr>
<td>Unhandled Exception DumpType</td>
<td>The type of dump to perform when the server crashes</td>
</tr>
<tr>
<td>Listener</td>
<td></td>
</tr>
<tr>
<td>Max Listen Backlog</td>
<td></td>
</tr>
<tr>
<td>Target Type</td>
<td>Collected Configuration Information</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Oracle BI Scheduler</td>
<td>• Product Version</td>
</tr>
<tr>
<td></td>
<td>• Oracle BI Scheduler Configuration:</td>
</tr>
<tr>
<td></td>
<td>• Admin Name</td>
</tr>
<tr>
<td></td>
<td>• Bulk Fetch Buffer Size</td>
</tr>
<tr>
<td></td>
<td>• CLI Type</td>
</tr>
<tr>
<td></td>
<td>• Cluster Port</td>
</tr>
<tr>
<td></td>
<td>• DSN</td>
</tr>
<tr>
<td></td>
<td>• Default Script Path</td>
</tr>
<tr>
<td></td>
<td>• Log All SqlStmts - True or False</td>
</tr>
<tr>
<td></td>
<td>• Max Exec Threads</td>
</tr>
<tr>
<td></td>
<td>• Min Exec Threads</td>
</tr>
<tr>
<td></td>
<td>• Num of DB Connections</td>
</tr>
<tr>
<td></td>
<td>• Part Of Cluster</td>
</tr>
<tr>
<td></td>
<td>• Pause On Startup</td>
</tr>
<tr>
<td></td>
<td>• Pool Timeout</td>
</tr>
<tr>
<td></td>
<td>• Pool Username</td>
</tr>
<tr>
<td></td>
<td>• Port String</td>
</tr>
<tr>
<td></td>
<td>• Purge Inst Days</td>
</tr>
<tr>
<td></td>
<td>• Purge Interval Minutes</td>
</tr>
<tr>
<td></td>
<td>• Scheduler Script Path</td>
</tr>
<tr>
<td></td>
<td>• Target Type</td>
</tr>
<tr>
<td></td>
<td>• Temp Path</td>
</tr>
<tr>
<td></td>
<td>• Table Error Messages</td>
</tr>
<tr>
<td></td>
<td>• Table Instances</td>
</tr>
<tr>
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<td>• Table Jobs</td>
</tr>
<tr>
<td></td>
<td>• Table Params</td>
</tr>
<tr>
<td></td>
<td>• Java Host Server</td>
</tr>
<tr>
<td></td>
<td>• CA Certificate Dir</td>
</tr>
<tr>
<td></td>
<td>• CA Certificate File</td>
</tr>
<tr>
<td></td>
<td>• Cert PrivateKey FileName</td>
</tr>
<tr>
<td></td>
<td>• Certificate File Name</td>
</tr>
<tr>
<td></td>
<td>• Certificate Verify Depth</td>
</tr>
<tr>
<td></td>
<td>• Cipher List</td>
</tr>
<tr>
<td></td>
<td>• Passphrase File Name</td>
</tr>
<tr>
<td></td>
<td>• Passphrase ProgramName</td>
</tr>
<tr>
<td></td>
<td>• Trusted Peer DNS</td>
</tr>
<tr>
<td></td>
<td>• Use SSL</td>
</tr>
<tr>
<td></td>
<td>• Verify Peer</td>
</tr>
<tr>
<td></td>
<td>• Script RPC Port</td>
</tr>
<tr>
<td></td>
<td>• Auth User</td>
</tr>
<tr>
<td></td>
<td>• Server</td>
</tr>
<tr>
<td></td>
<td>• Service</td>
</tr>
</tbody>
</table>

Table 1–3 (Cont.) Collected Configuration for Oracle BI Targets
## Configuration Management

### Oracle BI Scheduler Mail Configuration
- From
- Max Recipients
- SMTP Port
- SMTP Server
- Sender
- Smtp CA Certificate Directory
- Smtp CA Certificate File
- Smtp CA Certificate Verification Depth
- Smtp Cipher List
- Try
- Use Bcc
- Use SSL
- Username

### Oracle BI Scheduler iBOTS Configuration:
- Debug
- Keep Error LogFiles
- Log Purge Days
- Log_Dir
- Max Delivery SleepSecs
- Max Global SleepSecs
- Max Request SleepSecs
- MaxRows Times Columns
- Min Delivery Sleep Secs
- Min Global Sleep Secs
- Min Request Sleep Secs
- Num Of Delivery Retries
- Num Of Global Retries
- Num Of Request Retries
- Web_Server

### Oracle BI Cluster Controller Configurations (including PRIMARY_CONTROLLER, SECONDARY_CONTROLLER, SERVERS)
- Product Version
- Oracle BI Cluster Controller Configurations
1.3.2 Viewing Configurations

Using the Business Intelligence Management Pack, you can perform the following actions for monitored Oracle BI targets such as Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, Oracle BI Cluster Controller, and Oracle BI DAC Server:

- View the last collected and saved configuration
- Save configurations to a configuration file (XML file) or to the Management Repository
- Search collected configuration data
- View the history of configuration changes
- Compare configurations (see Comparing Configurations for more details)

Perform the following steps to view configuration of a monitored Oracle BI target:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on one of the Oracle BI targets. For instance, to view the configuration for Oracle BI Scheduler, click on the target type Oracle BI Scheduler.
4. Click the View Configuration link in the Configuration section.
5. To save a "snapshot" of the current configuration, click Save.
6. You can select Save to Enterprise Manager Repository or Export to File. Click OK to continue.

1.3.3 Comparing Configurations

Grid Control gives you the tools to perform comparisons between configurations of the same target type. These comparisons are useful to quickly find similarities and differences between two or more configurations.
You can compare:

- Two configurations in the Management Repository
- Two saved configuration files
- One configuration to multiple configurations
- A configuration in the Management Repository to a saved configuration file

When two target configurations are compared, all categories of collected configuration information are included. Grid Control presents the summary results of the comparison in a tabular format. More information that is detailed is available by drilling down from those summary results.

Perform the following steps to compare configurations of a monitored Oracle BI target:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on one of the Oracle BI targets. For instance, to compare configurations for Oracle BI Scheduler, click on the target type Oracle BI Scheduler.
4. Click the Compare Configuration link in the Configuration section.
5. You may select another target (in this case, another Oracle BI Scheduler) for comparison or click Saved Configurations to launch a comparison between the current configuration and an already saved configuration snapshot.
6. To compare the current configuration to multiple snapshots, click Compare Multiple Configurations link in the Configuration section of the Oracle BI target home page.

1.3.4 Configuration History

Grid Control gives you the tools to view the history of configuration changes for all monitored Oracle BI targets.

Perform the following steps to view configuration history of a monitored Oracle BI target:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on one of the Oracle BI targets. For instance, to view configuration history for Oracle BI Scheduler, click on the target type Oracle BI Scheduler.
4. Click the Configuration History link in the Configuration section.
5. From the View History Records dropdown menu, select Show All to view the configuration changes that occurred in Oracle BI Scheduler.
6. Click the Details link to view more information about a specific change.
7. The configuration changes can also be saved to a CSV file by clicking the Save to File button.

The change history audit trail is useful not only for diagnostic purposes, but also for compliance, as laws such as SOX and HIPAA require traceability of changes at all levels of the application stack. As changes are tracked automatically, it makes compliance a lot easier, quicker and less expensive to implement.
1.4 Application Performance Management

Due to the size, complexity, and criticality of today’s enterprise IT operations, the challenge for IT professionals is to maintain high levels of component availability and performance for both applications and all components that comprise the application’s technology stack. Monitoring the performance of these components and quickly correcting problems before they can impact business operations is crucial.

For more information about Application Performance Management, refer to the System Monitoring section of the Enterprise Manager Concepts Guide:

http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b31949/toc.htm

The Business Intelligence Management Pack in Enterprise Manager provides comprehensive, flexible, easy-to-use monitoring functionality that supports the timely detection and notification of impending IT problems across your Business Intelligence environment.

This chapter covers the following topics:

- Monitoring Basics
- Monitoring Templates
- User-Defined Metrics
- Real-Time Performance Charts

1.4.1 Monitoring Basics

System monitoring functionality permits unattended monitoring of your IT environment. The Business Intelligence Management Pack in Enterprise Manager comes with a comprehensive set of performance and health metrics that allow monitoring of key components in your BI environment, such as Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, Oracle BI Cluster Controller, Oracle BI DAC Server, as well as the underlying hosts on which they run.

The collected performance metrics for the monitored Oracle BI targets are described in the Oracle Business Intelligence Performance Metrics section.

For information about collected performance metrics for the underlying hosts refer to the Host section of the Enterprise Manager Framework, Host, and Services Metric Reference Manual:

(http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b16230/toc.htm).

The Management Agent on each monitored host monitors the status, health, and performance of all managed components (also referred to as targets) on that host. If a target goes down, or if a performance metric crosses a warning or critical threshold, an alert is generated and sent to Enterprise Manager and to Enterprise Manager administrators who have registered interest in receiving such notifications.

Systems monitoring functionality and the mechanisms that support this functionality are discussed in the following sections:

- Out-of-Box Monitoring
- Metric Baselines
- Alerts
- Notifications
1.4.1.1 Out-of-Box Monitoring

Management Agents of Enterprise Manager automatically start monitoring their host systems (including hardware and software configuration data on these hosts) as soon as they are deployed and started. Metrics from all monitored components are stored and aggregated in the Management Repository, providing administrators with a rich source of diagnostic information and trend analysis data. When critical alerts are detected, notifications are sent to administrators for rapid resolution.

Out-of-box, Enterprise Manager monitoring functionality provides:

- In-depth monitoring with Oracle-recommended metrics and thresholds.
- Access to real-time performance charts.
- Collection, storage, and aggregation of metric data in the Management Repository. This allows you to perform strategic tasks such as trend analysis and reporting.
- E-mail notification for detected critical alerts.

The Business Intelligence Management Pack in Enterprise Manager monitors all critical components in your BI environment (such as BI Server, BI Scheduler, BI Presentation Server, BI Cluster Controller, BI DAC Server, and underlying hosts) within your IT infrastructure.

Some examples of monitored metrics are:

- Average Query Request Response Time (Oracle BI Server)
- Completed Requests/Second (Oracle BI Presentation Server)
- Failed Jobs (Oracle BI Scheduler)
- Failed ETL Runs (Oracle BI DAC Server)
- Network Interface Total I/O Rate (Host)

Perform the following steps to view all metrics collected for a monitored Oracle BI target:

1. Click the **Targets** tab on the Enterprise Manager Console.
2. Click the **All Targets** tab.
3. Click one of the Oracle BI targets. For instance, to view the collected metrics for Oracle BI Analytics Server, click the target type **Oracle BI Analytics Server**.
4. Click the **All Metrics** link in the **Related Links** section.

Some metrics have associated predefined limiting parameters called thresholds that cause alerts to be triggered when collected metric values exceed these limits. Enterprise Manager allows you to set metric threshold values for two levels of alert severity:

- **Warning** - Attention is required in a particular area, but the area is still functional.
- **Critical** - Immediate action is required in a particular area. The area is either not functional or indicative of imminent problems.

Perform the following steps to change the warning and critical thresholds of performance metrics for a monitored Oracle BI target:

- Click the **Targets** tab on the Enterprise Manager Console.
Application Performance Management

- Click the All Targets tab.
- Click one of the Oracle BI targets. For instance, to change performance metrics thresholds for Oracle BI Analytics Server, click the target type Oracle BI Analytics Server.
- Click the Metric and Policy Settings link in the Related Links section.

In addition to monitoring performance metrics for each individual BI target, the Business Intelligence Management Pack provides the ability to monitor the BI environment from a service-oriented perspective. A target of type "Generic Service" is created automatically after the Oracle BI Suite EE discovery wizard is completed. The service is modeled with Oracle BI Analytics Server, Oracle BI Scheduler, Oracle BI Presentation Server, Oracle BI Cluster Controller, and the underlying hosts defined as the key components critical for running this service.

For more information about monitoring the BI environment from a service-oriented perspective see Service Level Management section.

You can define metrics to measure the performance of the service. You can add performance metrics from any of the key components that are critical for running the service. After you add metrics, you can define thresholds, which, when exceeded, generate alerts.

Perform the following steps to add performance metrics based on any of the key components and change the warning and critical thresholds for the selected metrics:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click the Oracle BI Service target type Generic Service.
4. Click the Monitoring Configuration tab.
5. Click the Performance Metrics link.
6. Select Based on System from the Add dropdown list and click Go.
7. Select the Oracle BI target to monitor from the Target Type dropdown list, and then select the desired performance metric from the Metric dropdown list. Click Continue to proceed.
8. Define the Warning Threshold and Critical Threshold for the selected performance metric and click OK to save your changes.

1.4.1.2 Metric Baselines

Metric baselines are statistical characterizations of system performance over well-defined time periods. Metric baselines can be used to implement adaptive alert thresholds for certain performance metrics as well as provide normalized views of system performance. Adaptive alert thresholds are used to detect unusual performance events. Baseline normalized views of metric behavior help administrators explain and understand such events. Metric baselines are well-defined time intervals (baseline periods) over which Enterprise Manager has captured system performance metrics. The underlying assumption of metric baselines is that systems with relatively stable performance should exhibit similar metric observations (that is, values) over times of comparable workload.

Two types of baseline periods are supported: moving window baseline periods and static baseline periods. Moving window baseline periods are defined as some number of days before the current date (for example: Last 7 days). This allows comparison of current metric values with recently observed history. Moving window baselines are
useful for operational systems with predictable workload cycles (for example: OLTP days and batch nights). Static baselines are periods of time that you define that are of particular interest to you (for example: end of the fiscal year). These baselines can be used to characterize workload periods for comparison against future occurrences of that workload (for example: compare end of the fiscal year from one calendar year to the next).

Once metric baselines are defined, they can be used to establish alert thresholds that are statistically significant and adapt to expected variations across time. For example, you can define alert thresholds to be generated based on significance level, such as, the HIGH significance level thresholds are values that occur 5 in 100 times. Alternatively, you can generate thresholds based on a percentage of the maximum value observed within the baseline period. These can be used to generate alerts when performance metric values are observed to exceed normal peaks within that period.

Perform the following steps to customize metric baselines for the Oracle BI Service of type Generic Service:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click the Oracle BI Service target type Generic Service.
4. Click the Monitoring Configuration tab.
5. Click the Metric Baselines link in the Related Links section.

### 1.4.1.3 Alerts

When a metric threshold value is reached, an alert is generated. An alert indicates a potential problem; either a warning or critical threshold for a monitored metric has been crossed. An alert can also be generated for various target availability states, such as:

- Target is down.
- Oracle Management Agent monitoring the target is unreachable.

For information about defining warning and critical thresholds, see the Out-of-Box Monitoring section.

When an alert is generated, you can access details about the alert from the Enterprise Manager console. In the All Targets Alerts section of the Enterprise Manager home page, you can view Critical Alerts, Warning Alerts and Errors for all monitored targets.

The home page of any monitored Oracle BI target lists the alerts specific to that target. You may also view a history of alerts for diagnostics purposes.

Perform the following steps to view alert history for a monitored Oracle BI target:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click one of the Oracle BI targets. For instance, to view alert history for Oracle BI Analytics Server, click the target type Oracle BI Analytics Server.
4. Click the Alert History link in the Related Links section.

Enterprise Manager provides various options to respond to alerts. Administrators can be automatically notified when an alert triggers and/or corrective actions can be set up to automatically resolve an alert condition.

For information about setting up notifications, see Notifications section.

For information about setting up corrective actions, see Corrective Actions section.

1.4.1.4 Notifications

When a target becomes unavailable or if thresholds for performance are crossed, alerts are generated in the Enterprise Manager console and notifications are sent to the appropriate administrators. Enterprise Manager supports notifications via e-mail (including e-mail-to-page systems), SNMP traps, and/or by running custom scripts.

Enterprise Manager supports these various notification mechanisms via notification methods. A notification method is used to specify the particulars associated with a specific notification mechanism, for example, which SMTP gateway(s) to use for e-mail, which OS script to run to log trouble-tickets, and so on. Super Administrators perform a one-time setup of the various types of notification methods available for use. Once defined, other administrators can create notification rules that specify the set of criteria that determines when a notification should be sent and how it should be sent. The criteria defined in notification rules include the targets, metrics and severity states (clear, warning, or critical) and the notification method that should be used when an alert occurs that matches the criteria. For example, you can define a notification rule that specifies e-mail should be sent to you when CPU Utilization on any host target is at critical severity or another notification rule that creates a trouble-ticket when any database is down. After a notification rule is defined, it can be made public for sharing across administrators. For example, administrators can subscribe to the same rule if they are interested in receiving alerts for the same criteria defined in the rule. Alternatively, an Enterprise Manager Super Administrator can assign notification rules to other administrators such that they receive notifications for alerts as defined in the rule.

Notifications are not limited to alerting administrators. Notification methods can be extended to execute any custom OS script or PL/SQL procedure, and thus can be used to automate any type of alert handling. For example, administrators can define notification methods that call into a trouble ticketing system, invoke third-party APIs to share alert information with other monitoring systems, or log a bug against a product.

Perform the following steps to customize notifications:

1. Click the Setup link on the Enterprise Manager Console (located in the upper right section).
2. Click on the Notification Methods tab.
3. Enter information required for the Mail Server and add the desired notification methods

1.4.1.5 Corrective Actions

Corrective actions allow you to specify automated responses to alerts. Corrective actions ensure that routine responses to alerts are automatically executed, thereby saving administrator time and ensuring problems are dealt with before they noticeably impact users. For example, if Enterprise Manager detects that a component, such as the Oracle BI Server is down, a corrective action can be specified to automatically run an OS command to start it back up. A corrective action is thus any task you specify
that will be executed when a metric triggers a warning or critical alert severity. By default, the corrective action runs on the target on which the alert has triggered. Administrators can also receive notifications for the success or failure of corrective actions.

Corrective actions for a target can be defined by all Enterprise Manager administrators who have been granted OPERATOR or greater privilege on the target. For any metric, you can define different corrective actions when the metric triggers at warning severity or at critical severity.

Corrective actions must run using the credentials of a specific Enterprise Manager administrator. For this reason, whenever a corrective action is created or modified, the credentials that the modified action will run with must be specified.

Perform the following steps to set up corrective actions based on performance metrics for a monitored Oracle BI target:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click one of the Oracle BI targets. For instance, if you would like to set up corrective actions based on performance metrics thresholds for Oracle BI Analytics Server, click on the target of type Oracle BI Analytics Server.
4. Click the Metric and Policy Settings link in the Related Links section.
5. Click the Edit link for the performance metric for which you want to set up corrective action.
6. Click Add in the Corrective Actions section to add corrective actions for either critical or warning thresholds.

1.4.1.6 Blackouts

Blackouts allow you to support planned outage periods to perform emergency or scheduled maintenance. When a target is put under blackout, monitoring is suspended, thus preventing unnecessary alerts from being sent when you bring down a target for scheduled maintenance operations such as database backup or hardware upgrade. Blackout periods are automatically excluded when calculating a target’s overall availability.

A blackout period can be defined for individual targets, a group of targets or for all targets on a host. The blackout can be scheduled to run immediately or in the future, and to run indefinitely or stop after a specific duration. Blackouts can be created on an as-needed basis, or scheduled to run at regular intervals. If, during the maintenance period, you discover that you need more (or less) time to complete maintenance tasks, you can easily extend (or stop) the blackout that is currently in effect. Blackout functionality is available from both the Enterprise Manager console as well as via the Enterprise Manager command-line interface (EMCLI). The EMCLI is often useful for administrators who would like to incorporate the blacking out of a target within their maintenance scripts. When a blackout ends, the Management Agent automatically re-evaluates all metrics for the target to provide current status of the target post-blackout.

If an administrator inadvertently performs scheduled maintenance on a target without first putting the target under blackout, these periods would be reflected as target downtime instead of planned blackout periods. This has an adverse impact on the target’s availability records. In such cases, Enterprise Manager allows Super Administrators to go back and define the blackout period that should have happened.
at that time. The ability to create these retroactive blackouts provides Super Administrators the flexibility to define a more accurate picture of target availability.

Perform the following steps to set up blackouts for a monitored Oracle BI target:
1. Click the Setup link on the Enterprise Manager Console (located in the upper right section).
2. Click the Blackouts tab.
3. Click the Create button to launch a blackout wizard.
4. Select the desired target types and enter all the requested information.

1.4.2 Monitoring Templates

Monitoring templates simplify the task of standardizing monitoring settings across your enterprise by allowing you to specify the monitoring settings once and apply them to your monitored targets. This makes it easy for you to apply specific monitoring settings to specific classes of targets throughout your enterprise. For example, you can define one monitoring template for test databases and another monitoring template for production databases.

A monitoring template defines all Enterprise Manager parameters you would normally set to monitor a target, such as:
- Target type to which the template applies.
- Metrics (including user-defined metrics), thresholds, metric collection schedules, and corrective actions.

When a change is made to a template, you can reapply the template across affected targets in order to propagate the new changes. You can reapply the monitoring templates as often as needed. For any target, you can preserve custom monitoring settings by specifying metric settings that can never be overwritten by a template.

Perform the following steps to set up blackouts for a monitored Oracle BI target:
1. Click the Setup link on the Enterprise Manager Console (located in the upper right section).
2. Click the Monitoring Templates tab.
3. Click Create to launch a monitoring template wizard.
4. Select the desired target and click Continue.
5. Enter the information requested (including Warning and Critical Thresholds) and click OK to save your settings.

1.4.3 User-Defined Metrics

User-defined metrics allow you to extend the reach of Enterprise Manager’s monitoring to conditions specific to particular environments via custom scripts. Once a user-defined metric is defined, it will be monitored, aggregated in the repository, and can trigger alerts like any other metric in Enterprise Manager. The supported user-defined metrics in the Business Intelligence Management Pack are the ones created at the host-level (Operating System). Operating System (OS) User-Defined Metrics can be accessed from Host target home pages and allow you to implement custom monitoring functions via OS scripts.

Perform the following steps to set up user-defined metrics for the underlying hosts supporting the Oracle BI environment:
1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click the target type Host on which Oracle Business Intelligence components are running.
4. Click the User-Define Metrics link in the Related Links section.
5. Click Create to create a new user-define metric
6. Enter all the requested information and click OK to save your changes.

If you already have your own library of custom monitoring scripts, you can leverage Enterprise Manager's monitoring features by integrating these scripts with Enterprise Manager as OS user-defined metrics.

1.4.4 Real-Time Performance Charts

Real-time performance charts are available for all monitored Oracle BI targets. The performance charts displayed are based on performance metrics collected by Enterprise Manager.

The collected performance metrics for the monitored Oracle BI targets are described in the Oracle Business Intelligence Performance Metrics section.

Performance charts are discussed in the following sections:

1.4.4.1 Oracle BI Server

- Oracle BI Server
- Oracle BI Presentation Server
- Oracle BI Scheduler
- Oracle BI DAC Server
- Oracle BI Cluster Controller

The Oracle BI Analytics Server home page shows graphs for Request Processing Time (seconds) and Request Throughput (requests per second) under the Response and Load section.

The Performance page (sub-tab) for the Oracle BI Analytics Server displays performance charts that are available in different categories:

General Performance:
- CPU Usage %
- Memory Usage (KB)
- Physical DB Connections
- Execute Requests
- Fetch Requests
- Prepare Requests
- Active Logins
- Total Sessions
Cache Performance:
- Data Cache Hit Ratio %
- Data Cache Hits Vs. Misses
- Generic Cache Requests
- Generic Cache Average Hits/sec
- Generic Cache Utilization Ratio %

Database Performance:
- Queries/sec
- Rows/sec
- Failed queries/sec
- Average Query Response Time (sec)

The Dashboard Reports page (sub-tab) for the Oracle BI Analytics Server displays information about dashboard usage allowing the user to:
- View Dashboard Usage in Last 7 Days
- View Failed Dashboards in Last 24 Hours
- View Top Dashboards by Resource Usage in Last 7 Days
- View Top Users by Resource Usage in Last 7 Days

1.4.4.2 Oracle BI Presentation Server
The Oracle BI Presentation Server home page shows graphs for Complete Requests per Second and Current Requests under the Response and Load section.

The Performance page (sub-tab) for the Oracle BI Presentation Server displays performance charts for the following metrics:
- CPU Usage %
- Memory Usage (KB)
- Sessions
- Chart Engine
- Query Thread Pool
- Chart Thread Pool

1.4.4.3 Oracle BI Scheduler
The Oracle BI Scheduler home page shows graphs for Failed Jobs and Total Jobs under the Scheduler Jobs section.

Under the Failed BI Scheduler Jobs (Last 24 Hrs) section, information about failed jobs is displayed with details about the Job Name, Instance ID, Job ID, Start Time, Duration and Error Message.

Under the Next Scheduled Jobs section, information about scheduled jobs is displayed with details about User ID, Job Name, Job ID, Next Run Time, and Script Type.
1.4.4.4 Oracle BI DAC Server

The Oracle BI DAC Server home page shows graphs for Failed Tasks and Total Tasks under the ETL Performance section.

The Oracle BI DAC Server home page also shows graphs for Running Tasks and Runnable Tasks under the Running Vs Runnable section.

Under the Failed ETL Runs section, information about failed ETL Runs is displayed with details about the ETL Run Name, Process ID, Duration, Total Steps, Completed Steps, Stopped/Failed Steps, Running Steps, and Log.

The Performance page (sub-tab) for the Oracle BI DAC Server displays performance charts that are available in two categories:

**Historical ETL Performance:**
- Total Tasks
- Completed Tasks
- Running Tasks
- Failed Tasks
- Queued Tasks
- Runnable Tasks

**ETL Runs:**
- View summary of completed runs with information about the Duration, Total Steps, Completed Steps, Stopped/Failed Steps and Running Steps for all completed runs.
- View error log for each ETL Run.

1.4.4.5 Oracle BI Cluster Controller

The Oracle BI Cluster Controller home page shows graphs for CPU (%) and Memory Usage (KB).

1.5 Service Level Management

In addition to monitoring performance metrics for each individual BI target, the Business Intelligence Management Pack provides the ability to monitor the BI environment from a service-oriented perspective. A target of type "Generic Service" is created automatically after completing the Oracle BI Suite EE discovery wizard. The service is modeled with Oracle BI Analytics Server, Oracle BI Scheduler, Oracle BI Presentation Server, Oracle BI Cluster Controller, and the underlying hosts defined as the key components critical for running this service.

For more information about Service Level Management, refer to the Service Management section of the Enterprise Manager Concepts Guide:

http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b31949/toc.htm

Enterprise Manager Grid Control provides a comprehensive monitoring solution that helps you to effectively manage services from the overview level to the individual component level. When a service fails or performs poorly, Grid Control provides diagnostics tools that help to resolve problems quickly and efficiently, significantly reducing administrative costs spent on problem identification and resolution. Finally,
customized reports offer a valuable mechanism to analyze the behavior of the applications over time.

Service Level Management is discussed in the following sections:

- Service Tests and Beacons
- Performance and Usage
- Availability
- Service-Level Rules
- Topology View
- Service Performance
- Reports

1.5.1 Service Tests and Beacons

Service tests are functional tests that are defined by Enterprise Manager administrators to represent end user tasks, and are used to determine the availability and performance of a service. The availability of a service is defined in terms of the successful execution of either all or at least one of the 'key' service tests defined for the service.

For the Oracle Business Intelligence Enterprise Edition application, an administrator can define a combination of one or more navigation paths within the application to be used as the criteria for determining the service's availability. For example, the Interactive Dashboards requires that a user successfully log on to the Web site and access one of the available dashboards for the service to be considered available. Enterprise Manager uses these logical tasks or 'transactions' to define the availability of a Web application. These critical paths of business processes for Web applications are recorded, and the stored transaction or 'service test' can be launched at a user-defined interval from strategic locations across the user-base.

Important Notes:

The limitations of using service tests to monitor the availability and performance of the Oracle BI-EE service are listed below:

- The following types of paths/operations can be used in the synthetic web transactions
- Login/Logout: Login and logout of any of the web-based BI-EE components is supported.
- Text-based Dashboard Pages (Without the Flash Based Charts): Retrieving the page-load times for text only pages with pivot tables is supported. On the other hand, flash-based UI components (for example, charts) that retrieve data asynchronously through the BI Presentation Server are not supported.
- Clickable Links: These include tabs from the main dashboard and clickable images.
- The following types of paths/operations cannot be used in the synthetic web transactions
  1. HTML-Based Menus: The use of dropdown lists, checkboxes, or any other dynamic HTML element is not supported.
  2. Frames: Embedded frames (for example, Oracle BI Answers) are not supported.
Service Level Management

- Changes made to the dashboard (for example, rearranging certain tabs, relocating certain components, and so on) may affect your service test. Verify that your service test has not been affected by these changes. In case a service is affected by these changes, you must re-record the web transaction.

- The Browser Simulation playback mode is supported on Windows XP beacons only - Browser Simulation is not supported on Windows 2000/2003 beacons. For information about setting up Windows XP beacons to support Browser Simulation, see the Browser Simulation on Windows XP Beacon is Disabled section.

Availability using service tests are monitored from various global user communities within the network. A service may be unavailable for all users or it may be a problem that is impacting users contained only within a specific network or location. To determine application availability from different end-points, 'beacons' are used to playback service tests at specified intervals from various locations that are representative of your user communities. Beacons are client robots that collect availability and performance data at specified intervals at strategic locations in the network.

Perform the following steps to add a beacon:

1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on the Oracle BI Service target type Generic Service.
4. Click the Monitoring Configuration tab.
5. Click the Service Tests and Beacons link.
6. From the Service Tests section, select Web Transaction from the Test Type dropdown list and click Add.
7. Click Go to Record a Transaction
8. Click Record and navigate through the critical paths in your Web browser. Close the Web browser and click Continue when you finish.
9. Verify the recorded steps and click Continue.
10. Select either Browser Simulation or Request Simulation as the Playback Mode. Refer to Request Simulation versus Browser Simulation for more information about the differences between the two playback modes.
11. Verify the information and click OK to save your service test.
12. From the Beacons section, click Add.
13. Select the desired beacon and click Select.
14. To enable your newly created service test, select your service test from the Service Tests section and click Enable.
1.5.1.1 Request Simulation versus Browser Simulation

The **Request Simulation** mode in Grid Control 10.2.0.4 is equivalent to the web transaction monitoring capability in Grid Control 10.2.0.3.

In Grid Control 10.2.0.3, when a web transaction is recorded, the web transaction monitoring capability records all the HTTP requests that the browser made. The Beacon plays back a web transaction by sending an equivalent set of HTTP requests. Due to the dynamic nature of HTTP requests (especially session specific parameters), the request simulation approach may not be suitable for certain web transactions because requests that contain parameters only relevant to the recording session may not be recorded.

In Grid Control 10.2.0.4, a new mode of playback: **Browser Simulation** was introduced. When a web transaction is recorded, all the HTTP requests, as well as the mouse and keyboard actions are recorded. A Beacon plays back a web transaction by either sending HTTP requests (Request Simulation) or by opening a browser and performing these mouse and keyboard actions (Browser Simulation). For example, data entry in a text field, and mouse click on a button.

At the end of the web transaction recording, a user needs to pick a playback mode - (Request Simulation or Browser Simulation) based on a simple heuristic.

Steps to verify the Request Simulation mode is suitable after recording:

1. Select the radio button **Request Simulation**.
2. Click **Play** next to the selection.
3. Observe the playback flow. Pay attention to any abnormal pages.
4. Click **Verify Service Test**, this may take a while depending on the complexity of the test.
5. Make sure the beacon reports the status as Up.
6. Click **Continue** to go back to the web transaction creation screen.

Steps to verify the Browser Simulation mode is suitable after recording:

1. Make sure you have Grid Control 10.2.0.4 Agent running on Windows XP Platform for the selected beacon. The Browser Simulation playback mode is supported only on Windows XP beacons - Browser Simulation is not supported on Windows 2000/2003 beacons. For information about setting up Windows XP beacons to support Browser Simulation, see the Troubleshooting the Business Intelligence Management Pack section.
2. Select the radio button **Browser Simulation**.
3. Click **Play** next to the selection.
4. Observe the playback flow. Again, pay attention to any abnormal pages.
5. If the play seems to work successfully, save the web transaction.

1.5.2 Performance and Usage

You can define metrics to measure the performance and usage of the service. Performance indicates the response time of the service as experienced by the end user. Usage metrics are based on the user demand or load on the system. After adding metrics, you can define thresholds, which, when exceeded, generate alerts.

Additionally, the charts for the performance and usage metrics that you define will be displayed in the **Charts** page (sub-tab).
Finally, the performance metrics that you add will be available for defining the Availability of the service as discussed in the following section.

Perform the following steps to add performance metrics:
1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click the Oracle BI Service target type Generic Service.
4. Click the Monitoring Configuration tab.
5. Click the Performance Metrics link.
6. You may select Based on System or Based on Service Test from the Add dropdown list. Click Go.
7. Define the Warning Threshold and Critical Threshold for the selected performance metric and click OK to save your changes.

Perform the following steps to add usage metrics:
1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click the Oracle BI Service target type Generic Service.
4. Click the Monitoring Configuration tab.
5. Click the Usage Metrics link.
6. Click Add and select the desired usage metrics.
7. Define the Warning Threshold and Critical Threshold for the selected performance metric and click OK to save your changes.

1.5.3 Availability

“Availability” of a service is a measure of the end users’ ability to access the service at a given point in time. The rules of what constitutes availability, however, may differ from one application to another. For example, for a Customer Relationship Management (CRM) application, availability may mean that a user can successfully log on to the application and access a sales report. For an online store, availability may be monitored based on whether the user can successfully log in, browse the store, and make an online purchase.

Grid Control allows you to define the availability of your service based on service tests or systems.

- Service Test-Based Availability: Choose this option if the availability of your service is determined by the availability of a critical functionality to your end users. While defining a service test, choose the protocol that most closely matches the critical functionality of your business process and beacon locations that match the locations of your user communities. You can define one or more service tests using standard protocols and designate one or more service tests as “Key Tests.” These key tests can be executed by one or more “Key Beacons” in different user communities. A service is considered available if one or all key tests can be executed successfully by at least one beacon, depending on your availability definition.

- System-Based Availability: The availability of your service can alternatively be based on the underlying system that hosts the service. Select the components that are critical to running your service and designate one or more components as “Key
Components,” which are used to determine the availability of the service. The service is considered available if at least one or all key components are up and running, depending on your availability definition.

Perform the following steps to define the availability of a service:
1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click on the Oracle BI Service target type Generic Service.
4. Click on Monitoring Configuration tab.
5. Click on the Availability Definition link.
6. You may select Service Test or System from the Define Availability Based On dropdown list.
7. Enter the request information and click OK to save your changes.

1.5.4 Service-Level Rules

Service-level parameters are used to measure the quality of the service. These parameters are usually based on actual service-level agreements or on operational objectives.

Service Level Management feature of Grid Control allows you to proactively monitor your enterprise against your service-level agreements to verify that you are meeting the availability, performance, and business needs within the business hours of the service. For service-level agreements, you may want to specify the levels according to operational or contractual objectives.

By monitoring against service levels, you can ensure the quality and compliance of your business processes and applications.

Perform the following steps to edit service-level rule for a service:
1. Click the Targets tab on the Enterprise Manager Console.
2. Click the All Targets tab.
3. Click the Oracle BI Service target type Generic Service.
4. Click the Monitoring Configuration tab.
5. Click the Edit Service Level Rule link from the Related Links section.
6. Enter the request information and click OK to save your changes.

1.5.5 Topology View

Use the Topology page (sub-tab), to view the dependencies between the service, its system components, and other services that define its availability. Upon service failure, the potential causes of failure, as identified by Root Cause Analysis, are highlighted in the topology view. In the topology, you can view dependent relationships between services and systems.

1.5.6 Service Performance

Grid Control provides a graphical representation of the historic and current performance and usage trends in the Charts page (sub-tab). You can view metric data for the current day (24 hours), 7 days, or 31 days. The thresholds for any performance or usage alerts generated during the selected period are also displayed in the charts.
This helps you to easily track the performance and usage of the service test or system over time and investigate causes of service failure.

Use the **Test Performance** page (sub-tab) to view the historical and current performance of the service tests from each of the beacons. If a service test has been defined for this service, the response time measurements as a result of executing that service test can be used as a basis for performance metrics of the service. It is possible to have multiple response time measurements if the service access involves multiple steps or the service provides multiple business functions. Alternatively, performance metrics from the underlying system components can also be used to measure performance of a service.

If the performance of a service is slow, it may be due to high usage of the service. Monitoring the service usage helps diagnose poor performance by indicating whether the service is affected by high usage of a system component.

### 1.5.7 Reports

Enterprise Manager provides out-of-box reports that are useful for monitoring services and Web applications. You can also set the publishing options for reports so that they are sent out via email at a specified period of time.

For more information about Service Level Management, refer to the Information Publisher section of the *Enterprise Manager Concepts Guide*:

[http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b31949/toc.htm](http://download.oracle.com/docs/cd/B16240_01/doc/em.102/b31949/toc.htm)

### 1.6 Oracle Business Intelligence Performance Metrics

Performance metrics are collected for all the monitored Oracle Business Intelligence targets. This section describes all the performance metrics collected and provides some guidelines for using performance metrics.

- Oracle BI Analytics Server
- Oracle BI Presentation Server
- Oracle BI Scheduler
- Oracle BI Cluster Controller
- Oracle BI DAC Server

### 1.6.1 Oracle BI Analytics Server

The metrics collected for the Oracle BI Analytics Server are shown in Table 1-4. The performance metrics for the Oracle BI Server are exposed via the JMX Agent - located in `OracleBI\systemsmanagement\` directory.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Connection Pool</td>
<td>Counters specifically pertaining to Oracle BI Server DB Connection Pool object</td>
</tr>
<tr>
<td>Current Busy Connection Count</td>
<td>The current number of connections assigned to process a query or processing a query in the DB Connection pool.</td>
</tr>
<tr>
<td>Current Connection Count</td>
<td>The current number of open connections in the thread pool.</td>
</tr>
<tr>
<td>Physical Database</td>
<td>Back-end physical database to which Oracle BI Server connects</td>
</tr>
</tbody>
</table>

Table 1-4 Oracle BI Analytics Server Metrics
Table 1–4 (Cont.) Oracle BI Analytics Server Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Query Request Response Time</td>
<td>Average time (in seconds) a physical query waits for responses to its back-end database requests during the sampling interval.</td>
</tr>
<tr>
<td>Failed Queries/Second</td>
<td>Number of queries that failed each second in the back-end physical database during the sampling interval.</td>
</tr>
<tr>
<td>Queries/Second</td>
<td>Number of queries completed each second by back-end physical database during the sampling interval.</td>
</tr>
<tr>
<td>Rows/Second</td>
<td>Number of rows retrieved each second from back-end physical database (both completed and failed queries) during the sampling interval.</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
</tr>
<tr>
<td>CPU (%)</td>
<td>The CPU Usage metric provides the CPU consumption as a percentage of CPU time at any given moment in time. The number is a summation of the CPU consumption of the Oracle BI Server process and any of its child processes (and their child processes and so on).</td>
</tr>
<tr>
<td>Memory (KB)</td>
<td>The amount of memory (in KB) used by the Oracle BI Server and its child processes.</td>
</tr>
<tr>
<td>Status</td>
<td>The status of the Oracle BI Server: Up, Down, Pending, or Under Blackout. This metric value is 1 if the Oracle BI Server is up and running.</td>
</tr>
<tr>
<td>Data Cache - Counters specifically pertaining to Oracle BI Server Data Cache</td>
<td></td>
</tr>
<tr>
<td>Data Cache Hit Ratio as %</td>
<td>Percentage of data cache hits during the sampling period</td>
</tr>
<tr>
<td>Data Cache Hits/Second</td>
<td>Number of times a query was satisfied from data cache each second during the sampling period</td>
</tr>
<tr>
<td>Data Cache Misses/Second</td>
<td>Number of times a qualified query was not satisfied from data cache each second during the sampling period</td>
</tr>
<tr>
<td>Data Cache Unqualified Queries Misses/Second</td>
<td>Number of times an unqualified query was not satisfied from data cache each second during the sampling period</td>
</tr>
<tr>
<td>Generic Cache - Counters specifically pertaining to Oracle BI Server Cache using Generic Cache object</td>
<td></td>
</tr>
<tr>
<td>Generic Cache Average Hits/Second</td>
<td>Average number of hits each second for the specified cache object during the sampling period</td>
</tr>
<tr>
<td>Generic Cache Average Misses/Second</td>
<td>Average number of misses each second for the specified cache object during the sampling period</td>
</tr>
<tr>
<td>Generic Cache Requests Since Last Collection</td>
<td>Total number of requests against the specified cache object since last collection</td>
</tr>
<tr>
<td>Generic Cache Total Requests</td>
<td>Total number of requests during the sampling period against the specified cache object</td>
</tr>
<tr>
<td>Generic Cache Utilization Ratio (%)</td>
<td>Percentage of specified cache object in use</td>
</tr>
<tr>
<td>General - General counters pertaining to overall Oracle BI SPDLL Performance</td>
<td></td>
</tr>
<tr>
<td>Active Execute Requests</td>
<td>Number of execute requests active within the Oracle BI Server at the end of the sampling interval</td>
</tr>
<tr>
<td>Active Execute Requests Since Last Collection</td>
<td>Number of execute requests active within the Oracle BI Server since last collection</td>
</tr>
<tr>
<td>Active Fetch Requests</td>
<td>Number of fetch requests active within the Oracle BI Server at the end of the sampling interval</td>
</tr>
<tr>
<td>Active Fetch Requests Since Last Collection</td>
<td>Number of fetch requests active within the Oracle BI Server since last collection</td>
</tr>
</tbody>
</table>
### Oracle Business Intelligence Performance Metrics

#### Table 1–4 (Cont.) Oracle BI Analytics Server Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Logins</td>
<td>Number of active logins within the Oracle BI Server at the end of the sampling interval</td>
</tr>
<tr>
<td>Active Logins Since Last Collection</td>
<td>Number of active logins within the Oracle BI Server since last collection</td>
</tr>
<tr>
<td>Active Prepare Requests</td>
<td>Number of query prepare requests active within the Oracle BI at the end of the sampling interval</td>
</tr>
<tr>
<td>Active Prepare Requests Since Last Collection</td>
<td>Number of query prepare requests active within the Oracle BI since last collection</td>
</tr>
<tr>
<td>Average Query Elapsed Time</td>
<td>Elapsed time (in seconds) for the average query that completed, including both successful and fail queries, during the sampling interval</td>
</tr>
<tr>
<td>New Execute Requests</td>
<td>Number of new execute requests received by the Oracle BI Server during the sampling interval</td>
</tr>
<tr>
<td>New Execute Requests Since Last Collection</td>
<td>Number of new execute requests received by the Oracle BI Server since last collection</td>
</tr>
<tr>
<td>New Fetch Requests</td>
<td>Number of new fetch requests received by the Oracle BI Server during the sampling interval</td>
</tr>
<tr>
<td>New Fetch Requests Since Last Collection</td>
<td>Number of new fetch requests received by the Oracle BI Server since last collection</td>
</tr>
<tr>
<td>New Prepare Requests</td>
<td>Number of new query prepare requests received by the Oracle BI during the sampling interval</td>
</tr>
<tr>
<td>New Prepare Requests Since Last Collection</td>
<td>Number of new query prepare requests received by the Oracle BI since last collection</td>
</tr>
<tr>
<td>Queries/Second</td>
<td>Number of queries completed each second by Oracle BI Server during the sampling interval</td>
</tr>
<tr>
<td>Sessions Since Last Collection</td>
<td>Number of sessions connecting clients to Oracle BI Server since last collection</td>
</tr>
<tr>
<td>Total Sessions</td>
<td>Number of sessions connecting clients to Oracle BI Server at the end of the sampling interval</td>
</tr>
</tbody>
</table>

**Dashboard Usage - Dashboard Usage in Last 7 Days**

- **Count**: The number of dashboards accessed in the last 7 days
- **Last Accessed On**: The “last-access” date for all the dashboards used in the last 7 days

**Dashboard Usage - Failed Dashboards in Last 24 Hours**

- **Dashboard**: The name of the failed dashboard in the last 24 hours
- **End Time**: The end time of a dashboard request
- **Error Code**: The error code associated with the dashboard failure
- **Error Message**: The error message associated with the dashboard failure
- **Repository**: The repository in which dashboard failure occurred
- **Start Time**: The start time of a dashboard request
- **Subject Area**: The subject area associated with the failed dashboard

**Dashboard Usage - Top Dashboards in Last 7 Days**

- **Total Compile Time**: The total compile time for a dashboard request
- **Total Database Time**: The total database time for a dashboard request
- **Total Failed Requests**: The total number of failed requests
1.6.2 Oracle BI Presentation Server

The metrics collected for the Oracle BI Presentation Server are shown in Table 1–5. The performance metrics for the Oracle BI Presentation Server are exposed via the JMX Agent - located in OracleBI\systemsmanagement\ directory.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Requests</td>
<td>The total number of requests</td>
</tr>
<tr>
<td>Total Time</td>
<td>The total time taken to complete a request</td>
</tr>
</tbody>
</table>

**Dashboard Usage - Top Users in Last 7 Days**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Compile Time</td>
<td>The total compile time for a dashboard request</td>
</tr>
<tr>
<td>Total Database Time</td>
<td>The total database time for a dashboard request</td>
</tr>
<tr>
<td>Total Failed Requests</td>
<td>The total number of failed requests</td>
</tr>
<tr>
<td>Total Requests</td>
<td>The total number of requests</td>
</tr>
<tr>
<td>Total Time</td>
<td>The total time taken to complete a request</td>
</tr>
</tbody>
</table>

---

### Table 1–4 (Cont.) Oracle BI Analytics Server Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td><strong>CPU (%)</strong> The CPU Usage metric provides the CPU consumption as a percentage of CPU time at any given moment in time. The number is a summation of the CPU consumption of the Oracle BI Presentation Server process and any of its child processes (and their child processes and so on).</td>
</tr>
<tr>
<td>Memory (KB)</td>
<td>The amount of memory used by the Oracle BI Presentation Server and all of its child processes in KB</td>
</tr>
<tr>
<td>Response</td>
<td><strong>Status</strong> The status of the Oracle BI Presentation Server: Up, Down, Pending, or Under Blackout. This metric has a value of 1 if the Oracle BI Presentation Server is up and running.</td>
</tr>
</tbody>
</table>

**Sessions - Information about Oracle BI Presentation Server sessions. A session can be a browser or an iBot session**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Sessions</td>
<td>The number of sessions that are considered active</td>
</tr>
<tr>
<td>Current Sessions</td>
<td>The number of current sessions</td>
</tr>
</tbody>
</table>

**Chart Engine - Information related to Oracle BI Presentation Server’s chart engine and cache. The chart cache maintains, on disk, recently accessed charts for instantaneous response**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charts Queued</td>
<td>The current number of charts waiting in queue for processing</td>
</tr>
<tr>
<td>Charts Running</td>
<td>The current number of charts that are currently being processed. This does not include charts waiting in queue for processing</td>
</tr>
</tbody>
</table>

**Charts Thread Pools - Information about charts threads pools within the Oracle BI Presentation Server. A thread pool is responsible for executing jobs of a specific type**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs Queued</td>
<td>The current number of jobs waiting in queue for processing by this thread pool</td>
</tr>
<tr>
<td>Jobs Running</td>
<td>The current number of jobs being processed by this thread pool</td>
</tr>
</tbody>
</table>

**Query Thread Pool - Information about query threads pools within the Oracle BI Presentation Server. A thread pool is responsible for executing jobs of a specific type**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs Queued</td>
<td>The current number of jobs waiting in queue for processing by this thread pool</td>
</tr>
<tr>
<td>Jobs Running</td>
<td>The current number of jobs being processed by this thread pool</td>
</tr>
</tbody>
</table>
The metrics collected for the Oracle BI Scheduler are shown in Table 1–6.

### Oracle BI Scheduler Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU (%)</td>
<td>The CPU Usage metric provides the CPU consumption as a percentage of CPU time at any given moment in time. The number is a summation of the CPU consumption of the Oracle BI Scheduler process and any of its child processes (and their child processes and so on).</td>
</tr>
<tr>
<td>Memory (KB)</td>
<td>The amount of memory used by the Oracle BI Scheduler and its child processes in KB.</td>
</tr>
<tr>
<td>Status</td>
<td>The status of the Oracle BI Scheduler: Up, Down, Pending, or Under Blackout. This metric has a value of 1 if the Oracle BI Scheduler is up and running.</td>
</tr>
<tr>
<td>Failed Jobs</td>
<td>The total number of failed jobs</td>
</tr>
<tr>
<td>Total Jobs</td>
<td>The total number of jobs</td>
</tr>
<tr>
<td>End Time</td>
<td>The end time of a scheduled job</td>
</tr>
<tr>
<td>Error Message</td>
<td>The error message associated with a failed job</td>
</tr>
<tr>
<td>Job Name</td>
<td>The name of a failed job</td>
</tr>
<tr>
<td>Start Time</td>
<td>The start time of a scheduled job</td>
</tr>
<tr>
<td>Job Name</td>
<td>The name of a scheduled job</td>
</tr>
<tr>
<td>Next Run Time</td>
<td>The next run time for a scheduled job</td>
</tr>
<tr>
<td>Script Type</td>
<td>The type of script for a scheduled job (for example, JavaScript)</td>
</tr>
<tr>
<td>Sys Time Stamp</td>
<td>The Sys Time Stamp for a scheduled job</td>
</tr>
<tr>
<td>Time Zone</td>
<td>The time zone associated with a scheduled job</td>
</tr>
<tr>
<td>User ID</td>
<td>The User ID responsible for a scheduled job</td>
</tr>
</tbody>
</table>

Table 1–5 (Cont.) Oracle BI Presentation Server Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Processor</td>
<td>Information related to requests processed by the Oracle BI Presentation Server</td>
</tr>
<tr>
<td>Bad Requests</td>
<td>The total number of bad requests</td>
</tr>
<tr>
<td>Completed Requests</td>
<td>The total number of requests completed</td>
</tr>
<tr>
<td>Completed Requests/Second</td>
<td>The rate at which new requests are processed</td>
</tr>
<tr>
<td>Current Requests</td>
<td>The current number of requests being processed</td>
</tr>
<tr>
<td>Failed Requests</td>
<td>The total number of failed requests</td>
</tr>
<tr>
<td>Long Requests</td>
<td>The total number of long running requests</td>
</tr>
</tbody>
</table>

Table 1–6 Oracle BI Scheduler Metrics

1.6.3 Oracle BI Scheduler

The metrics collected for the Oracle BI Scheduler are shown in Table 1–6.
1.6.4 Oracle BI Cluster Controller

The metrics collected for the Oracle Cluster Controller are shown in Table 1–7.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resources</strong></td>
<td></td>
</tr>
<tr>
<td>CPU (%)</td>
<td>The CPU Usage metric provides the CPU consumption as a percentage of CPU time at any given moment in time. The number is a summation of the CPU consumption of the Oracle BI Cluster Controller process and any of its child processes (and their child processes and so on).</td>
</tr>
<tr>
<td>Memory (KB)</td>
<td>The amount of memory used by the Oracle BI Cluster Controller and its child processes in KB.</td>
</tr>
<tr>
<td><strong>Response</strong></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>The status of the Oracle BI Cluster Controller: Up, Down, Pending, or Under Blackout. This metric has a value of 1 if the Oracle BI Cluster Controller is up and running.</td>
</tr>
</tbody>
</table>

1.6.5 Oracle BI DAC Server

The metrics collected for the Oracle BI DAC Server are shown in Table 1–8.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resources</strong></td>
<td></td>
</tr>
<tr>
<td>CPU (%)</td>
<td>The CPU Usage metric provides the CPU consumption as a percentage of CPU time at any given moment in time. The number is a summation of the CPU consumption of the Oracle BI DAC Server process and any of its child processes (and their child processes and so on).</td>
</tr>
<tr>
<td>Memory (KB)</td>
<td>The amount of memory (in KB) used by the Oracle BI DAC Server and its child processes.</td>
</tr>
<tr>
<td><strong>Response</strong></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>The status of the Oracle BI DAC Server: Up, Down, Pending, or Under Blackout. This metric has a value of 1 if the Oracle BI DAC Server is up and running.</td>
</tr>
<tr>
<td><strong>ETL Performance</strong></td>
<td></td>
</tr>
<tr>
<td>Completed Tasks</td>
<td>The number of completed ETL Tasks</td>
</tr>
<tr>
<td>Failed Tasks</td>
<td>The number of failed ETL Tasks</td>
</tr>
<tr>
<td>Queued Tasks</td>
<td>The number of queued ETL Tasks</td>
</tr>
<tr>
<td>Runnable Tasks</td>
<td>The number of ETL Tasks that can be run</td>
</tr>
<tr>
<td>Running Tasks</td>
<td>The number of running ETL Tasks</td>
</tr>
<tr>
<td>Total Tasks</td>
<td>The total number of ETL Tasks</td>
</tr>
<tr>
<td><strong>ETL Runs</strong></td>
<td></td>
</tr>
<tr>
<td>Completed Steps</td>
<td>Number of successful steps</td>
</tr>
<tr>
<td>ETL Definition</td>
<td>Name of the ETL execution plan</td>
</tr>
<tr>
<td>End Time</td>
<td>The end time of the ETL Run</td>
</tr>
<tr>
<td>Failed Steps</td>
<td>Number of failed steps</td>
</tr>
<tr>
<td>Running Steps</td>
<td>Number of running steps</td>
</tr>
<tr>
<td>Start Time</td>
<td>The start time of the ETL Run</td>
</tr>
</tbody>
</table>
Troubleshooting the Business Intelligence Management Pack

1.7 Troubleshooting the Business Intelligence Management Pack

This section describes common problems that you may encounter when monitoring and managing BI-EE with the Business Intelligence Management Pack.

It contains the following topics:

- Failure to Discover an Oracle BI Suite EE
- Configuration Comparison for the Oracle BI Presentation Server Fails
- Certain Metrics Are Not Collected
- Difference in Component Status of EM and Windows Services Panel
- Internet Explorer Crashes During Multiple Recording of Same Application Transactions
- Browser Simulation on Windows XP Beacon is Disabled

1.7.1 Failure to Discover an Oracle BI Suite EE

This section describes

1.7.1.1 Problem

The Oracle BI Suite EE discovery fails and, consequently, Enterprise Manager does not create the corresponding Oracle BI-EE targets.

1.7.1.2 Possible Cause

The credentials requested for discovering the Oracle BI-EE components (including Oracle BI Analytics Server, Oracle BI Cluster Controller, Oracle BI Scheduler and Oracle BI Presentation Server) may be inaccurate.
1.7.1.3 Solution
Provide the correct credentials for discovering the Oracle BI-EE components:

- **Agent Credentials**, enter the login credentials for a privileged account in the host, that is, an administrator account.
- **JMX Port**: 9980 - Check the C:\OracleBI\systemsmanagement\runagent.cmd file to verify that the port has been appropriately changed.
- **JMX Username/Password**: oc4jadmin/welcome1 (Default)
- **Connect String**: jdbc:oracle:oci:@<hostname>:<port>:orcl
- **Class String**: oracle.jdbc.driver.OracleDriver
- **Database Username/Password**: The username/password created to access the BI Scheduler tables and $NQ_ACCT$ table for usage statistics in the Oracle database. For example: $NQ_SCHED$

Verify that all pre-requisites have been completed before the discovery process. See the Discovering and Configuring Oracle Business Intelligence Targets section.

1.7.2 Configuration Comparison for the Oracle BI Presentation Server Fails

**Problem**
Configuration Comparison for the Oracle BI Presentation Server Fails

**Possible Cause**
Limitation in Oracle Enterprise Manager 10g Release 4 (10.2.0.4.0) and will be resolved in future releases.

1.7.3 Certain Metrics Are Not Collected

**Problem**
Although the Oracle BI Suite EE discovery completed successfully, some metrics are collected, but other metrics are not.

**Possible Cause**
- JMX Agent has not been started
- JMX Agent credentials are incorrect

**Solution**
- Start the JMX agent - OracleBI\systemsmanagement\runagent.cmd. Make sure that all the Oracle BI-EE services are running - OC4J, Oracle BI Java Host, Oracle BI Server, Oracle BI Presentation Server, Oracle BI Scheduler, and Oracle BI Cluster Controller (if applicable).
  
  cd C:\OracleBI\systemsmanagement\runagent.cmd

- Provide accurate credentials for the JMX Agent. See the Discovering and Configuring Oracle Business Intelligence Targets section.
1.7.4 Difference in Component Status of EM and Windows Services Panel

**Possible Cause**
Enterprise Manager (EM) collects Oracle BI-EE metrics only at certain intervals (regular metrics every 15 minutes, availability information every five minutes). Therefore, information visible in the Enterprise Manager user interface may be out of sync with the Windows Services panel.

**Workaround**
If you are interested in monitoring a certain metric in real-time mode for a certain period, go to the All Metrics page for a given Oracle BI-EE target, navigate to the desired metric, and change it to Real-time mode. In this mode, collection occurs more frequently and you can follow statistics more closely.

**Solution**
You can change the collection frequency for individual metrics. If you want the availability metrics to be collected more often, you may change the collection frequency for your key Oracle BI-EE components.

1.7.5 Internet Explorer Crashes During Multiple Recording of Same Application Transactions

**Possible Cause**
A limitation in the application.

**Solution**
Close and start a new Internet Explorer browser window.

1.7.6 Browser Simulation on Windows XP Beacon is Disabled

**Possible Cause**
To run a Web Transaction (Browser) service test, you require beacons that are running on 10.2.0.4 or later Management Agent on Windows XP.

**Solution**
Refer to the Advanced Configuration Guide for details: [http://download-east.oracle.com/docs/cd/B16240_01/doc/em.102/e10954/apm.htm#sthref635](http://download-east.oracle.com/docs/cd/B16240_01/doc/em.102/e10954/apm.htm#sthref635)