This guide explains how to monitor and optimize performance of Oracle Business Intelligence. It describes how to monitor service levels, set performance parameters, and configure query cache.

For more detailed information about these and other tasks, see the Oracle BI EE documentation on Oracle Technology Network.

### Monitoring Service Levels

Understanding service levels typically involves monitoring process state and viewing system metrics.

### Viewing Common Performance Metrics Using Fusion Middleware Control

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Metrics tab of the Capacity Management page.
3. On the Metrics tab, you can view metrics that are related to current responsiveness, load, and reliability.
4. To find out more about the following metrics, click the Help button:
   - Request Processing Time (ms)
   - SOA Request Processing Time (ms)
   - Average Query Time (seconds)
   - Active Sessions
   - Requests (per minute)
   - SOA Requests (per minute)
   - Presentation Services Requests (per second)
   - Server Queries (per second)
   - Failed Queries
   - Errors Reported (in the last hour)

### Viewing All Oracle Business Intelligence Metrics Using Fusion Middleware Control

3. To customize the metrics that are displayed on the Performance Summary page, click **Show Metric Palette**. Then expand the metric category, and select or deselect individual metrics. The metrics that you select are displayed on the Performance Summary page.

For information about a particular metric, right-click the metric and select Help.
Viewing Metrics for Java Components Using the Oracle WebLogic Server Administration Console

1. Start the Oracle WebLogic Server Administration Console.
2. Expand the Environment node in the Domain Structure window.
3. Click Servers. The Summary of Servers page is displayed.
4. Click the server name (for example, bi_server1).
5. Click the Monitoring tab.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Protocols</th>
<th>Logging</th>
<th>Debug</th>
<th>Monitoring</th>
<th>Control</th>
<th>Deployments</th>
<th>Services</th>
<th>Security</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Health</td>
<td>Channels</td>
<td>Performance</td>
<td>Threads</td>
<td>Timers</td>
<td>Workload</td>
<td>Jobs</td>
<td>Security</td>
<td>Default Store</td>
</tr>
</tbody>
</table>

The page provides general runtime information about this server.

<table>
<thead>
<tr>
<th>State:</th>
<th>RUNNING</th>
<th>The current life cycle state of this server. More Info...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activation Time:</td>
<td>2/20/13 11:15:49 AM MST</td>
<td>The time when the server was started. More Info...</td>
</tr>
<tr>
<td>Weblogic Version:</td>
<td>Weblogic Server 10.3.5.0 Fn Apr 1 20:20:06 PDT 2011</td>
<td>The version of this Weblogic Server instance (server). More Info...</td>
</tr>
<tr>
<td>Java Vendor:</td>
<td>Sun Microsystems Inc.</td>
<td>Returns the vendor of the JVM. More Info...</td>
</tr>
<tr>
<td>Java Version:</td>
<td>1.6.0_35</td>
<td>The Java version of the JVM. More Info...</td>
</tr>
<tr>
<td>OS Name:</td>
<td>Windows Server 2008 R2</td>
<td>Returns the operating system on which the JVM is running. More Info...</td>
</tr>
<tr>
<td>OS Version:</td>
<td>6.1</td>
<td>The version of the operating system on which the JVM is running. More Info...</td>
</tr>
<tr>
<td>JACC Enabled:</td>
<td>false</td>
<td>Indicates whether JACC (Java Authorization Contract for Containers) was enabled on the command line for the JVM hosting the server. More Info...</td>
</tr>
</tbody>
</table>

Setting Performance Parameters Using Fusion Middleware Control

Disallowing RPD Updates

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Performance tab of the Capacity Management page.
3. Click Lock and Edit Configuration.
4. Select Disallow RPD Updates to prevent updates to the repository file.
5. Click Apply, then click Activate Changes.
6. Return to the Business Intelligence Overview page and click Restart.

Setting the User Session Log-Off Period

User Session Expiry

Reducing the user session expiry time will increase performance as resources associated with the session can be released to service new requests. The downside is that users will be required to log in more frequently and can lose transient session state.

Expiry Time: 210 Minutes

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Performance tab of the Capacity Management page.
3. Click Lock and Edit Configuration.
4. Specify the expiry time.
5. Click Apply, then click Activate Changes.
6. Return to the Business Intelligence Overview page and click Restart.
Setting Configuration Options for Data in Tables and Pivot Tables

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Performance tab of the Capacity Management page.
3. Click Lock and Edit Configuration.
4. Specify the maximum number of rows to download and maximum number of rows per page to include.
5. Click Apply, then click Activate Changes.
6. Return to the Business Intelligence Overview page and click Restart.

Setting the Maximum Number of Rows Processed to Render a Table

- Note the following when setting this value:
  - This specification applies to tables, not to pivot tables.
  - The default value is 65000. The minimum value is 50. If the user exceeds the maximum value, then the server returns an error message when the table view is rendered. The maximum value is at least 16 bits, which varies by platform. The system is likely to consume all its memory before approaching a number larger than this value.

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Performance tab of the Capacity Management page.
3. Click Lock and Edit Configuration.
4. Specify the maximum number of rows to download and maximum number of rows per page to include.
5. Click Apply, then click Activate Changes.
6. Return to the Business Intelligence Overview page and click Restart.

Configuring Query Cache Using Fusion Middleware Control

Understanding the Oracle BI Server Cache

You can configure the Oracle BI Server to maintain a local, disk-based cache of query result sets (query cache). The query cache enables the Oracle BI Server to satisfy many subsequent query requests without having to access back-end data sources, such as Oracle. The query cache enables the Oracle BI Server to satisfy many subsequent query requests without accessing back-end data sources, thereby increasing query performance.

As updates occur on the back-end databases, the query cache entries can become stale. Therefore, you must periodically remove entries from the query cache. For more information, see Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition.
Enabling Query Caching and Setting Query Cache Parameters

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Performance tab of the Capacity Management page.
3. Click Lock and Edit Configuration.
4. Confirm that Cache enabled is selected. If Cache enabled is not selected, select it now.
5. Specify the size of the query cache and the number of entries it can contain.
6. Click Apply, then click Activate Changes.
7. Return to the Business Intelligence Overview page and click Restart.

Understanding the Global Cache

In a clustered environment, Oracle BI Servers can be configured to access a shared cache called the global cache. This global cache resides on a shared file system storage device. It stores purging events, seeding events (often generated by agents), and result sets that are associated with seeding events.

The seeding and purging events are sorted by time and stored on the shared storage as a logical event queue. Individual Oracle BI Server nodes push to and pull from the logical event queue. Each Oracle BI Server still maintains its own local query cache for regular queries.

Setting Global Cache Parameters

1. Start Fusion Middleware Control and go to the Business Intelligence Overview page.
2. Display the Performance tab of the Capacity Management page.
3. Click Lock and Edit Configuration.
4. Specify the global cache path and the global cache size.
5. Click Apply, then click Activate Changes.
6. Return to the Business Intelligence Overview page and click Restart.