Oracle Corporation
Management
Discoverer Product
M.U.K. Donohue
and Troubleshooting
Performance, Scalability
Best Practices for
10g (9.0.4)
Oracle Discoverer
Best Practices
Oracle Discoverer 10g (9.0.4) –

- Troubleshooting
- Scalability
- Performance
- Architecture
Oracle Architecture - OracleAS Discoverer

OLTP or Data Warehouse

Infrastructure

Oracle Application Server

Preferences

Sessions

Development

OC4J

Discoverer Portlets

Plus Discoverer

Viewer

Discoverer
Oracle Discover Best Practices

- Troubleshooting
- Scalability
- Performance
- Architecture
- Database Parameter Settings
- Database Server Summary Advisor
- Materialized Views
- Indices
- Star Schema over 3NF

Performance - Database
Try to defer complex aggregation to

Folders: Simple & Complex First, then Custom

OracleAS Discoverer 10g (9.0.4)

SQL Optimization in

Performance - Business Areas
that need tuning

Use Query Statistics Workbook to identify Worksheets

• Reduce time to export
• Reduce time to open

Remove extraneous worksheets from workbooks

• Avoid wide crosstab (viewer)

Create worksheets that are “human-sized”

• Parameters reduce data fetched

Smart use of parameters and page items

• Table over crosstab (if appropriate)

Performance - Worksheet design
Perfornance - Worksheet design
Performance - Discoverer configuration

- Viewer
- WebCache, Stylesheet Pool & Delay Times
Performance - Discoverer Configuration

Viewer: Webcache, Stylesheet Pool & Delay Times

Viewer Delay Times

- Viewer Stylesheet Pool
  - Log in/Out

Cacheing

Discoverer Viewer Configuration tool allows users to open Workspaces created with Discoverer files or DBC files.
Session Pool & StyleSheet Pool
Portlet Provider
WebCache, StyleSheet Pool & DelRay Times
Viewer

Performance - Discoverer Configuration
Performance - Discoverer Configuration

Discoverer Provider: Stylesheet Pool & Delay Times

Portlet Provider: Stylesheet Pool Configuration
Performance - Discoverer Configuration

- In Plus and Viewer Options per user
- In prest.txt overall
- Set RowspPrefix Appropriately
- Session Pool & Stylesheet Pool
- Portlet Provider
- Webcache, Stylesheet Pool & Delay Times
- Viewer
Rows Per Fetch in Viewer and Plus

Performance - Discoverer Configuration
- Session timeout values for Plus and Viewer
- In Plus and Viewer, Options per user
- In prets.txt overall
- Set_rows_per_fetch Appropriately
- Session Pool & Stylesheet Pool
- Portlet Provider
- WebCache, Stylesheet Pool & Delay Times
- Viewer

Performance - Discoverer Configuration
• Machine resources permitting, 1 per 2 CPUs
• OC4J number of JVMs
• OC4J JVM memory settings

Performance - Oracle AS configuration
Scalability

- Load Balancing
- Deployment Considerations
Scalability - Deployment

- Scheduling
- Plus
- Viewer
- Portlet Provider
- Consider user population, uses and right mix
Scalability - Deployment
Scalability - Load Balancing

- Commercial HTP/IPv Router Load balancers
- Oracle AS WebCache
- Oracle AS Discoverer on multiple machines
- Install Oracle AS Discoverer on multiple machines
Oracle Discovered Best Practices

• Troubleshooting
• Scalability
• Performance
• Architecture
• Enable Logging
• Monitor Performance
• checkdiscovery script

Troubleshooting
• Collect logs script
  • NICS
  • Discoverer Preferences
  • Discoverer Session
  • OAD and OSAgent
  • Discoverer Activation Processes

  • Checks
  • Use when nothing works

Troubleshooting - checkdiscoveryer
Discoverer Services

Use Application Server Control

Troubleshooting - Monitoring Performance
### Discoverer Sessions

<table>
<thead>
<tr>
<th>Session</th>
<th>User</th>
<th>SSN</th>
<th>CPU Usage</th>
<th>Memory Usage</th>
<th>Process ID</th>
<th>Component</th>
<th>OS Process</th>
<th>Top 10 CPU Usage</th>
<th>All Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234</td>
<td>Test</td>
<td>123</td>
<td>2.5%</td>
<td>1024MB</td>
<td>12301</td>
<td>SSO</td>
<td>12345</td>
<td>2.54%</td>
<td></td>
</tr>
<tr>
<td>5678</td>
<td>User</td>
<td>456</td>
<td>3.2%</td>
<td>2048MB</td>
<td>67890</td>
<td>EUL</td>
<td>78901</td>
<td>3.15%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

---

**Troubleshooting - Monitor Performance**

- Monitor the performance of Oracle Discoverer sessions using the provided tools.
- Ensure CPU and memory usage are within acceptable limits.
- Regularly check for any abnormal process IDs and components.
- Monitor top 10 CPU usage for any spikes.

---

*Page Refreshed Jun 9, 2004 2:49:40 PM*
Portlet Provider
Viewer
Plus
Discoverer Components
Discoverer Services
Use Application Server Control

Troubleshooting - Monitoring Performance
Troubleshooting – Enable Logging

- Use Application Server Control
- Discoverer Services
Troubleshooting - Logging
Portlet Provider
Viewer
Plus
Discoverer Components
Discoverer Services
Use Application Server Control

Troubleshooting – Enable Logging
ORACLE

Troubleshooting – Enable Logging

• Plus Java Console
  • Portlet Provider
  • Viewer
  • Plus
  • Discoverer Components
  • Discoverer Services
  • Use Application Server Control
Troubleshooting - Logging
Best Practices - References

- Oracle Database Data Warehousing Guide 10g Release 1 (10.1)
- Oracle Application Server 10g Performance Guide 10g (9.0.4)
- Oracle Application Server Administration Guide 10g (9.0.4)
- Oracle Application Server Discoverer Configuration Guide 10g (9.0.4)
- Diagnostics for Discoverer 10g (9.0.4)
- http://metalink.oracle.com/metalink/download/showdoc.pl?id=227390.1
- http://metalink.oracle.com/metalink/download/showdoc.pl?id=207638.0