ORACLE
Session Description

• **Session ID:** S316971
• **Title:** Day in the Life of a DBA: End-to-End Management with Oracle Enterprise Manager
• **Abstract:** Learn how Oracle Enterprise Manager breaks the mold of traditional management by starting with end user and mapping their experience down to the underlying IT stack. This application performance management solution provides drill-down troubleshooting, from Enterprise JavaBeans (EJB) and JavaServer Pages (JSP) to method calls and SQL. In this session, experience through a demonstration how Oracle's Enterprise Manager’s powerful diagnostic capabilities, coupled with the self-managing Oracle Database, will significantly lower management costs.
Program Agenda

- Oracle Enterprise Manager 11g Overview
- End-to-End Management Using Oracle Enterprise Manager
- Day in the Life of a DBA Demo
- Q&A
Enterprise Manager Overview
Business-Driven IT Management

User Experience

Business Transactions
- WEB PORTAL
- PRODUCT CATALOG
- ORDER ENTRY
- OTHER SERVICES

Business-Driven Application Management
- Understand business needs
- Manage from business perspective

Business Users and Customers

Integrated Application-to-Disk & Cloud Management
- Eliminate management silos
- Create agile IT for dynamic business

Services Cloud
- Oracle Support

Integrated Systems Management & Support
- Proactively identify and fix problems
- Maximize business productivity

Integrated Application-to-Disk and Cloud Management

APPLICATIONS
MIDDLEWARE
DATABASES
SERVERS
STORAGE

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End-To-End Management
Different Roles; Different Perspectives; One Environment Requires a Single, Comprehensive Solution

- Why are orders not being completed?
- What’s causing the application to run slowly?
- Why is the application creating resource issues on my database?
- Why are my servers maxed out?

Line of Business (LOB) Executive

Apps Manager / Apps Support

DBA

System Administrator

End users

Applications and Application Services

Middleware

Database

Host, OS, Storage and Network
Enterprise Manager Delivers a Complete Solution

*End-to-End and Application-to-Disk Management*

**Line of Business (LOB) Executive**
- RUEI Dashboard
- Business Transaction Management
- Services Dashboard

**Apps Manager / Apps Support**
- Services Model
- J2EE Application Home Page
- JVM Diagnostics

**DBA**
- DB Performance page
- ADDM Recommendations
- Database Testing

**System Administrator**
- Ops Center Virtualization Mgmt
- Host Management
Day in the Life Demo Flow

Line of Business (LOB) Executive
- RUEI Dashboard
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DBA
- DB Performance page
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System Administrator
- Ope-Center Virtualization Mgmt
- Host Management
Day in the Life of a DBA
The Demo Scenario

• **End Users** can not complete their transactions
  – RUEI dashboard detects the problem and it’s impact on end users
  – Key application service is shown as down on Services Dashboard

• **Application** service page confirms failed “Checkout” test
  – Topology view allows quick drilldown to service components

• **Middle Tier** triggers alerts for a growing number of threads
  – JVM diagnostics shows locked thread & indicates DB SQL wait

• **Database** diagnostics, view recommendations
  – “Checkout” SQL causes row lock
  – SQL causing Hard parsing

• **Virtual host** shows server alert in Ops Center Console
  – Logs SR from Ops Center to replace a broken fan
Tracking End Users and Impact on Business Transactions
Day in the Life Demo Flow

Line of Business (LOB) Executive

- RUETI Dashboard
- Business Transaction Management
- Services Dashboard

Apps Manager / Apps Support

- Services Model
- J2EE Application Home Page
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DBA

- DB Performance page
- ADDM Recommendations
- Database Testing

System Administrator

- Ops Center: Virtualization Mgmt
- Host Management
User Monitoring Solution Overview

Passive & Active Monitoring are Complementary

- **Real User Monitoring**
  - Monitor all real user sessions and transactions for the “Online Tool Shop” application

- **Synthetic User Monitoring**
  - Actively monitor critical transactions including “Checkout Transaction” regardless of user activity
Real End User Monitoring

Dashboard

Examine the steps in Transaction Funnel

Users are frustrated with the “Checkout” transaction

Critical transaction KPI triggered for “Online Tool Shop”

“Checkout” transaction is spiking

Tip: Personalize custom dashboards per application, per user.
Real End User Monitoring

Checkout Transaction Funnel

Tip: Identify the step where users abandoned the transaction and drill down to investigate root-cause.

View the same transaction issues in the Services Dashboard

“Online Tool Shop” transaction shows lost sessions with the shopping cart
Examine the specific service tests that are failing

“Online Tool Shop” application service is down! Orders are frozen.

Tip: A service is considered down if any of the defined availability transactions fail from any location for any reason.
Synthetic User Monitoring

Response From Different User Locations – 24X7

Go to the service homepage to examine why the transactions are failing

Service monitored from multiple end user locations

Test fails from all locations; Typically points to server side problem. Rules out WAN issues

Tip: Monitor all critical transactions regardless of actual user activity; Identify problems before users encounter them.
Day in the Life Demo Flow

Line of Business (LOB) Executive

- RUEI Dashboard
- Business Transaction Management
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Apps Manager / Apps Support

- Services Model
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System Administrator

- Ope-Center Virtualization Mgmt
- Host Management
Diagnostics through the Application and Middle Tier
Application Performance Management Solution Overview

• “Online Tool Shop” application is modeled as a “Service”
  – Track the service level (availability and performance)
  – Quickly identify the problem components in the application stack
  – View the service topology (system component relationships) in graphical mode

• Integrated middleware management solution
  – Comprehensive view of component level performance
  – Drill down to the JVM layer and identify the root-cause of the “Checkout” transaction (method, thread)
  – Correlate middleware issues with the database tier
Application Service Model  
Key Service Test and Alerts

View System Topology

“Checkout” transaction test is failing

Service alerts point to request timeout

Tip: Real user transactions can be imported from RUEI* and used as key service Tests (critical transactions); Running service tests from multiple locations provides insight: Denver office cannot access the Application, London office can – Application is fine, WAN issue for Denver office.

* Real User Experience Insight
Application Service Model

Drill Down Using Service Topology

Problems identified in application middle tier as well as in the database

Drill down to Middle Tier

Optional: Select any other problem component to directly drill down.
Tip: Homepage (alerts & response) provides good starting point for problem diagnosis.
Tip: Large number of active threads and active sessions indicate a hung application.
Tip: Integrated “JVM diagnostics” allows direct drill down to the JVM level and performs Java analysis in a production environment with negligible overhead.
Tip: View real-time & historical values of JVM metrics; narrow down issue.
Tip: Examine the behavior and state of the current threads in real-time.
Application Diagnostics through the JVM

Pinpoint the Problem Thread

Tip: Identify the problem, it’s overall impact, and drill down to investigate further.
Application Diagnostics through the JVM

Identify the Problem SQL

SQL hash value to debug in to database

Fix this specific SQL issue in the database

Tip: Correlate middleware issues with the database tier
Day in the Life Demo Flow

Line of Business (LOB) Executive

Apps Manager / Apps Support

DBA

System Administrator

RUETI Dashboard

Business Transaction Management

Services Dashboard

Services Model

J2EE Application Home Page

JVM Diagnostics

DB Performance page

ADDM Recommendations

Database Testing

Ops Center Virtualization Mgmt

Host Management
Diagnosing Issues into Database
Database Performance Management Solution Overview

• Diagnostics built directly into the database kernel
  – Accurate and efficient
  – Pinpoints root-cause - distinguishes symptoms from the actual problem
  – Reports on non-problem areas e.g. I/O is not a problem

• Correlates DB performance with other components
  – Hardware, operating system, storage, application, etc

• Automates SQL tuning

• Integrated with configuration and change management
  – Comprehensive diagnostics
  – Quicker problem resolution
Database Performance Management

Examine Blocking SQL

Check user sessions

Application Wait

SELECT PNUM, PCAT
FROM PARTS_CAT
WHERE PCAT='SPORTS' FOR UPDATE

ORACLE Enterprise Manager
Grid Control 11g

Databases | Hosts | Middleware | Web Applications | Services | Systems | Groups | Virtual Servers | All Targets

Database Instance: prod > Top Activity >
SQL Details: 6mnkk3r01hn7n
Switch to SQL ID: Go
View Data | Historical

Text

Details

Summary

Snapshots Details
Snapshot Time: Sep 18, 2010 8:20:40 PM to Sep 18, 2010 8:55:51 PM

General
Module SQL*Plus
Action
Parsing Schema CUST01
SQL Profile n/a

Shared Cursors Statistics
Total Parses 1
Hard Parses 0
SQL Cursors 5

Execution Statistics
Total Per Execution Per Row
Executions

Activity By Wait

Activity By Time
Elapsed Time (sec) 2,157.92
CPU Time (sec) 0.00
Wait Time (sec) 2,157.92
Enhanced Time Breakdown
SQL Time (sec) 2,157.92
PL/SQL Time (sec) 0.00
Java Time (sec) 0.00

Other Statistics
Executions that Fetched all Rows (%) 0.00
Database Performance Management
Verify Blocked Sessions

DBA Tip: Drag Slider to view historical information.
### Database Performance Management

**Examine Blocking SQL**

#### Kill blocking sessions

1. **Select** Blocking Sessions
2. **Expand** to view session details
3. **Select** the session to be terminated
4. **Click** Kill Session

#### Find the sessions to be terminated

1. **Select** the session(s) from the list
2. **View** the details for each session
3. **Determine** if the session(s) need to be terminated

#### Additional Monitoring

- **Top Activity**
- **Top Consumers**
- **Duplicate SQL**
- **Hang Analysis**
- **Instance Locks**

<table>
<thead>
<tr>
<th>User Name</th>
<th>Sessions Blocked</th>
<th>Session ID</th>
<th>Serial Number</th>
<th>SQL ID Wait Class</th>
<th>Wait Event</th>
<th>P1 Value</th>
<th>P2 Value</th>
<th>P3 Value</th>
<th>Seconds in Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUST02</td>
<td>2</td>
<td>114</td>
<td>44787</td>
<td>PL/SQL lock timer</td>
<td></td>
<td>360000</td>
<td>0</td>
<td>0</td>
<td>2571</td>
</tr>
<tr>
<td>CUST02</td>
<td>0</td>
<td>50</td>
<td>71</td>
<td>Application</td>
<td></td>
<td>1415053318</td>
<td>655376</td>
<td>95762</td>
<td>1556</td>
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<tr>
<td>CUST01</td>
<td>0</td>
<td>101</td>
<td>57935</td>
<td>Application</td>
<td></td>
<td>1415053318</td>
<td>655376</td>
<td>95762</td>
<td>1576</td>
</tr>
</tbody>
</table>
Database Performance Management

View Workload Activity

**DBA Tip:** For manual diagnostics choose a section (color) to further investigate.

* Automatic Database Diagnostics Monitor
Database Performance Management

Automatic Performance Recommendations by ADDM

*Real Application Cluster*
Investigate Problems Based on Recommendations

**Table Locks**

Row lock suggests an issue with the application logic.

**DBA Tip:** Database is not the culprit; Use JVM Diagnostics for pointers to Java class / method.
Database Performance Management

**Automatic Performance Recommendations by ADDM**

### Automatic Database Diagnostic Monitor (ADDM)

#### Database Activity

The icon selected below the graph identifies the ADDM analysis period. Click on a different icon to select a different analysis period.

#### ADDM Performance Analysis

**Task Name**: ADDM:8067057_1_331 (End Time: Sep 10, 2010 12:20:50 PM)

<table>
<thead>
<tr>
<th>Task Owner</th>
<th>Average Active Sessions</th>
<th>Period Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYS</td>
<td>3.1</td>
<td>Sep 10, 2010 12:10:49 PM</td>
<td>Sep 10, 2010 12:20:50 PM</td>
</tr>
</tbody>
</table>

- **Finding**: Top SQL Statements
  - Occurrences: 7 of 7

- **Finding**: Row Lock Waits
  - Occurrences: 7 of 7

- **Finding**: Hard Parse Due to Literal Usage
  - Occurrences: 6 of 7

**Take action for ADDM findings**

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Wait class "Commit" was not consuming significant database time.

Wait class "Concurrency" was not consuming significant database time.

Wait class "Configuration" was not consuming significant database time.

CPU was not a bottleneck for the instance.

Wait class "Network" was not consuming significant database time.

Session connect and disconnect calls were not consuming significant database time.

The database's maintenance windows were active during 100% of the analysis period.
Investigate Problems Based on Recommendations

Top SQL Statements

DBA Tip: Use Active Reports to share the SQL performance information in an offline manner.
Database Performance Management

Automatic Performance Recommendations by ADDM

Take action for ADDM finding
Investigate Problems Based on Recommendations

Hard Parsing

Issue caused by an unauthorized configuration change

DBA Tip: Use Enterprise Manager Configuration Management solution to detect unauthorized changes in real-time
Day in the Life Demo Flow

Line of Business (LOB) Executive

RUETI Dashboard

Business Transaction Management

Services Dashboard

Services Model

J2EE Application Home Page

JVM Diagnostics

DB Performance page

ADDM Recommendations

Database Testing

DBA

Apps Manager / Apps Support

System Administrator

Ope Center Virtualization Mgmt

Host Management
Drill Down into the Server and the Disk
Server Management Solution Overview

• Comprehensive management for physical & virtual systems
  – Hardware & OS monitoring – real time and historical
  – Auto discovery
  – Automated provisioning and patching

• Advanced Virtualization Management
  – VM lifecycle management
    – Create, delete, and configure
  – Resource monitoring
  – Workload migration

• Integrated solution allows performance correlation with other infrastructure components
**Host Management**

**View Host Alerts**

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**Tip:** Integration with Ops Center provides server level details in Grid Control.

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![Alert for broken fan](image-url)
Host Management

Pinpoint Problem

Tip: ASR (Automatic Service Request)* automatically opens a Sun service request, without anyone having to call Sun service to report the specific set of hardware faults.

* Available at no cost on servers covered by a Sun warranty or a Sun Spectrum service plan.
Host Management in Ops Center

Pinpoint Problem / Take a Corrective Action

Optional: Migrate to a new virtual host with adequate resources.
Day in the Life Demo Flow

Line of Business (LOB) Executive

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DBA

System Administrator

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ADDM Recommendations

Database Testing

Ops Center Virtualization Mgmt

Host Management
Life is Back to Normal
DBA Tip: Inform application administrator that the database is running fine.
“Checkout” transaction test is successful.

Tip: “Online Tool Shop” availability is confirmed by synthetic transactions from multiple user locations.
### Services Dashboard

#### Online Tool Shop service is back up and running

<table>
<thead>
<tr>
<th>Service</th>
<th>Status</th>
<th>Performance</th>
<th>Usage and Business Indicators</th>
<th>Components</th>
<th>Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MedRec1 Service</td>
<td>Up</td>
<td>465.00 Active Sessions</td>
<td>No Metrics Available</td>
<td>Up (1) Up</td>
<td>100.00% 99.58% 99.00%</td>
</tr>
<tr>
<td>Online Tool Shop</td>
<td>Up</td>
<td>61.00 Perceived Time per P....</td>
<td>269.00 JVM Threads - Active...</td>
<td>Up (2) Up</td>
<td>32.31% 32.31% 32.31%</td>
</tr>
</tbody>
</table>
Business-Driven IT Management

User Experience

Business Transactions
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- OTHER SERVICES

Business-Driven Application Management
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Integrated Application-to-Disk & Cloud Management
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- Create agile IT for dynamic business

Services Cloud

Oracle Support

Integrated Systems Management & Support
- Proactively identify and fix problems
- Maximize business productivity

Integrated Application-to-Disk and Cloud Management

APPLICATIONS
- MIDDLEWARE
- DATABASES
- SERVERS
- STORAGE

Business Users and Customers
Not to be Missed Enterprise Manager Sessions!

Business-Driven IT Management with Oracle Enterprise Manager 11g
- Leng Tan, VP, Tuesday, Sept 21\textsuperscript{st}, 11 am, Moscone South 102
- EM Overview, Product Roadmap, Cool Demos!

Enterprise IT and Cloud Computing
- Richard Sarwal, SVP, Monday, Sept. 20\textsuperscript{th}, 3:30 pm, Moscone South 102

Business-Driven Application and End-to-End Performance Diagnostic
- Ali Siddiqui, VP, Monday, Sept 20\textsuperscript{th}, 3:30pm in Moscone West Room 3024
- MW Management Overview, Product Roadmap, Cool Demos

What Lies Beneath: Oracle Ops Center for OS and Hardware Management
- Steve Wilson, VP, Tuesday, Sept 21\textsuperscript{st}, 5:00pm in Moscone South Room 270
Oracle Enterprise Manager 11g
Resource Center
Access Videos, Webcasts, White Papers, and More
Oracle.com/enterprisemanage11g
### Additional Oracle Enterprise Manager Sessions

<table>
<thead>
<tr>
<th>Monday, Sept. 20</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 11:00am – Oracle@Oracle: How Oracle IT Achieves High Application Service Levels</td>
<td>• Moscone W L2, Rm 2020</td>
</tr>
<tr>
<td>• 11:00am - End-to-End Application Management: Top Ten Tips and Techniques</td>
<td>• Moscone S Room 305</td>
</tr>
<tr>
<td>• 12:30pm – Day in the Life of a DBA: End-to-End Management with Oracle Enterprise Manager</td>
<td>• Moscone S Room 303</td>
</tr>
<tr>
<td>• 12:30pm - Automate Oracle E-Business Suite Testing With Oracle Application Testing Suite</td>
<td>• Moscone W L2, Rm 2020</td>
</tr>
<tr>
<td>• 2:00pm - How we built our Private Cloud with Oracle Enterprise Manager: The Verizon Story</td>
<td>• Moscone S Room 102</td>
</tr>
<tr>
<td>• 2:00pm - Mission Critical Database Monitoring with Enterprise Manager-Real World Lessons</td>
<td>• Moscone S Room 309</td>
</tr>
<tr>
<td>• 2:00pm - How You Can Optimize Siebel Applications for Today and Prepare for the Future</td>
<td>• Moscone W L2, Rm 2001</td>
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### Additional Oracle Enterprise Manager Sessions

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Location</th>
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<tbody>
<tr>
<td>3:30 pm - General Session: Enterprise IT and Cloud Computing</td>
<td>Moscone S Rm 102</td>
</tr>
<tr>
<td>3:30 p.m. - &quot;Lost in Transaction&quot;: Managing Business Transactions</td>
<td>Moscone S Rm 310</td>
</tr>
<tr>
<td>3:30 p.m. - Accelerate/Streamline Your Unicode Migration: Oracle Unicode Migration Assistant</td>
<td>Moscone S Rm 252</td>
</tr>
<tr>
<td>3:30 p.m. - Avoiding SQL Performance Regressions: New Techniques for Solving an Old Problem</td>
<td>Moscone S Rm 303</td>
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<tr>
<td>3:30 p.m. - Business-Driven Application Management and End-to-End Performance Diagnostics</td>
<td>Moscone W L3, Rm 3024</td>
</tr>
<tr>
<td>5:00 p.m. - Application Change &amp; Configuration Management: Tales from the Trenches</td>
<td>Moscone S Rm 102</td>
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<tr>
<td>5:00 p.m. - Mission Accomplished: Virtualization Powered by Oracle Enterprise Manager</td>
<td>Moscone S Rm 305</td>
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<tr>
<td>5:00 p.m. - Managing Oracle WebLogic Server: New Features and Best Practices</td>
<td>Moscone W L3, Rm 3024</td>
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### Additional Oracle Enterprise Manager Sessions

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>11:00 a.m.</td>
<td><strong>General Session: Business-Driven IT with Oracle Enterprise Manager 11g</strong></td>
<td>• Moscone S Rm102</td>
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<td></td>
<td><strong>Managing the Oracle Ecosystem on a Cloud Platform: Oracle Enterprise Manager</strong></td>
<td>• Moscone S Rm 309</td>
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<tr>
<td>2:00 p.m.</td>
<td><strong>Smart Database Administration: Cool New Features for Power DBAs</strong></td>
<td>• Moscone S Rm104</td>
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<td></td>
<td><strong>Application Testing in the Cloud: Smart Testing for Agile Enterprises</strong></td>
<td>• Moscone W L2, Rm 2010</td>
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<tr>
<td>3:30 p.m.</td>
<td><strong>Oracle Identity Management Administration Best Practices</strong></td>
<td>• Moscone S Rm 309</td>
</tr>
<tr>
<td></td>
<td><strong>Latest on Oracle Application Change Management Pack for Oracle E-Business Suite</strong></td>
<td>• Moscone W L2, Rm 2024</td>
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<td></td>
<td><strong>Deploy New Database Features Risk-Free with Database Replay</strong></td>
<td>• Moscone S Rm 102</td>
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<tr>
<td>5:00 p.m.</td>
<td><strong>SQL Tuning for Smarties, Dummies, and Everyone in Between</strong></td>
<td>• Moscone S Rm 104</td>
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<tr>
<td></td>
<td><strong>Oracle Enterprise Manager Ops Center for OS and Hardware Management</strong></td>
<td>• Moscone S 270</td>
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**Location:**
- Moscone S Rm102
- Moscone S Rm 309
- Moscone W L2, Rm 2010
- Moscone W L2, Rm 2024
- Moscone S Rm 102
- Moscone S 270
### Additional Oracle Enterprise Manager Sessions

**Wednesday, Sept. 22**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>10:00 a.m.</td>
<td>Manage the Manager: Diagnosing and Tuning Oracle Enterprise Manager</td>
<td>Moscone S Rm 102</td>
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<tr>
<td>11:30 a.m.</td>
<td>Maximizing Database Performance: Performance Tuning with DB Time</td>
<td>Moscone S Rm 104</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>Make Upgrades Uneventful Using Oracle Enterprise Manager and My Oracle Support</td>
<td>Moscone S Rm 310</td>
</tr>
<tr>
<td>12:30pm</td>
<td>Extracting Real Value from Your Data with Apache Hadoop</td>
<td>Hilton Hotel, Plaza B</td>
</tr>
<tr>
<td>1:00 p.m.</td>
<td>Reducing the Risk of SOA Transactions</td>
<td>Marriott Marquis, Salon 6</td>
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<tr>
<td>1:00 p.m.</td>
<td>SQL Tuning Roundtable with Oracle Gurus</td>
<td>Moscone S Rm102</td>
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<tr>
<td>4:45 p.m.</td>
<td>Strategies for Monitoring Large Datacenters with Oracle Enterprise Manager</td>
<td>Moscone S Rm102</td>
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<tr>
<td>4:45 p.m.</td>
<td>Oracle SOA Management Best Practices, Tips, and Techniques</td>
<td>Moscone W L3, Rm 3018</td>
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<tr>
<td>4:45 p.m.</td>
<td>Oracle E-Business Suite Technology: Vision, Release Overview, Product Roadmap</td>
<td>Moscone W L3, Rm 3002 / 3004</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Location</td>
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<tr>
<td>9:00 a.m.</td>
<td>Oracle WebLogic Server Management for Oracle DBAs</td>
<td>Marriott Marquis, Salon 9</td>
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<tr>
<td></td>
<td>Enabling Database as a Service Through Agile Self-Service Provisioning</td>
<td>Moscone S. Room 102</td>
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<tr>
<td></td>
<td>Reduce TCO with Oracle Application Management Pack for Oracle E-Business Suite</td>
<td>Moscone W L2, Rm 2024</td>
</tr>
<tr>
<td>10:30 a.m.</td>
<td>Best Practices for Managing Your PeopleSoft Applications</td>
<td>Marriott Hotel, Golden Gate A</td>
</tr>
<tr>
<td></td>
<td>Oracle Enterprise Manager Grid Control Deployment Best Practices</td>
<td>Moscone S. Room 102</td>
</tr>
<tr>
<td></td>
<td>Managing Sun SPARC Servers with Oracle Enterprise Manager Ops Center</td>
<td>Moscone S. Room 252</td>
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<tr>
<td></td>
<td>Heterogeneous Data Masking: Oracle, SQL Server, and DB2 Database Best Practices</td>
<td>Moscone S. Room 306</td>
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<tr>
<td>12:00 p.m.</td>
<td>Scalable Enterprise Data Processing for the Cloud with Oracle Grid Engine</td>
<td>Moscone S. Room 310</td>
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<tr>
<td></td>
<td>Spot Problems Before Your Users Call: User Experience Monitoring for Oracle Apps</td>
<td>Marriott Hotel, Golden Gate A</td>
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<td>Reduce Problem Resolution Time with Oracle Database 11g Diagnostic Framework</td>
<td>Moscone S. Room 102</td>
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## Additional Oracle Enterprise Manager Sessions

<table>
<thead>
<tr>
<th>Thursday, Sept. 23</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1:30 p.m. - Patching Enterprise-wide Databases: Automation Techniques and Real-World Insights</td>
<td>• Moscone S. Room 310</td>
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<tr>
<td>• 1:30 p.m. - Managing User Experience: Lessons from eBay</td>
<td>• Marriott Hotel, Golden Gate A</td>
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<tr>
<td>• 1:30 p.m. - Deep Java Diagnostics and Performance Tuning: Expert Tips and Techniques</td>
<td>• Marriott Marquis, Salon 9</td>
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<tr>
<td>• 1:30 p.m. - Oracle Enterprise Manager Configuration Management Unleashed: Top 10 Expert Tips</td>
<td>• Marriott Marquis, Salon 6</td>
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<td>• 1:30 p.m. - Oracle Enterprise Manager Security Best Practices</td>
<td>• Moscone S. Room 102</td>
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<tr>
<td>• 3:00 p.m. - The X-Files: Managing the Oracle Exadata and Highly Available Oracle Databases</td>
<td>• Moscone S. Room 102</td>
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<td>• 3:00 p.m. - Monitoring and Diagnosing Oracle RAC Performance with Oracle Enterprise Manager</td>
<td>• Moscone S. Room 310</td>
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## Oracle Enterprise Manager Hands On Labs

<table>
<thead>
<tr>
<th>Monday September 20, 2010</th>
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<tbody>
<tr>
<td>3:30 p.m. - 4:30 p.m.</td>
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<td>5:00 p.m. - 6:00 p.m.</td>
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<th>Tuesday September 21, 2010</th>
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<tr>
<td>11:00 a.m.-12:00 p.m.</td>
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<td>2:00 p.m. - 3:00 p.m.</td>
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<td>4:45 p.m. - 5:45 p.m.</td>
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<td>4:45 p.m. - 5:45 p.m.</td>
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<tbody>
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<td>9:00 a.m. - 10:00 a.m.</td>
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<tr>
<td>10:30 a.m. - 11:30 a.m.</td>
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### Oracle Enterprise Manager Demogrounds

<table>
<thead>
<tr>
<th>DEMO TITLE</th>
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<tbody>
<tr>
<td>Oracle Real Application Testing: Database Replay</td>
<td>Moscone West</td>
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<tr>
<td>Oracle Real Application Testing: SQL Performance Analyzer</td>
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<tr>
<td>Self-Managing Database: Automatic Performance Diagnostics</td>
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<tr>
<td>Self-Managing Database: Automatic Fault Diagnostics</td>
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<tr>
<td>Self-Managing Database: Automatic Application and SQL Tuning</td>
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<tr>
<td>Application Quality Management: Application Testing Suite</td>
<td>Moscone South - S022</td>
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<tr>
<td>Real User Monitoring with Oracle Enterprise Manager</td>
<td>Moscone South - S021</td>
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<tr>
<td>Siebel CRM Application Management</td>
<td>Moscone South - S024</td>
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<tr>
<td>Real User Monitoring with Oracle Enterprise Manager</td>
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<tr>
<td>Oracle WebLogic Server Management and Java Diagnostics</td>
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<td>SOA Management with Oracle Enterprise Manager</td>
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<td>Oracle Business Transaction Management</td>
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<td>Push Button Provisioning and Patch Automation</td>
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<td>Smart Configuration Management</td>
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<td>Oracle Enterprise Manager Ops Center</td>
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<td>Managing the Enterprise Private Cloud</td>
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<td>System Management, My Oracle Support, and Oracle Enterprise Manager</td>
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<tr>
<td>Self Managing Database: Change Management for DBAs</td>
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<tr>
<td>Oracle Enterprise Manager: Complete Datacenter Management</td>
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<td>Self-Managing Database: Data Masking for DBAs</td>
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SOFTWARE. HARDWARE. COMPLETE.